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OF ECONOMICS AND
POLITICAL SCIENCE ■

Social Policies and Distributional Outcomes

in a Changing Britain

The Conservative Governments' Record on Health from May 2015 to pre-COVID 2020: Policies, Spending and Outcomes

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The Social Policies and Distributional Outcomes research programme

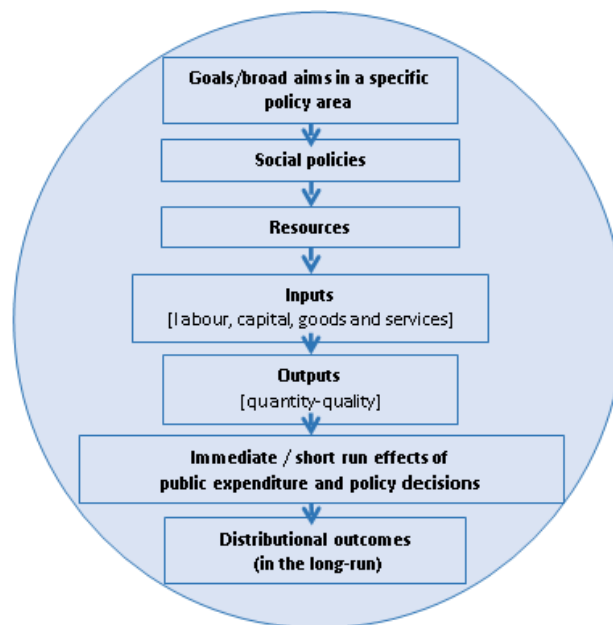
The central objective of the SPDO research programme is to provide an authoritative, independent, rigorous and in-depth evidence base on social policies and distributional outcomes in 21st century Britain. The central question addressed in the research programme is: What progress was made in addressing social inequalities through social policies between the May 2015 General Election and early 2020 (the eve of the COVID-19 pandemic)? The research programme is ambitious and comprehensive in scope, combining in-depth quantitative analysis of trends in social inequalities and social divides with detailed and systematic public expenditure and social policy analysis across ten major social policy areas over the period 2015-2020, together with broader reflection on the changing nature of social policies and distributional outcomes over the 21st century.

The SPDO research programme builds on the previous Social Policies in a Cold Climate (SPCC) research programme covering the period 1997-2015. The programme outputs update, extend and broaden our analysis of public expenditure, social policies and distributional outcomes using the most recent datasets available, resulting in a unique evidence base on trends in social inequalities and social policies going back to 1997. Innovative extensions included within the SPDO research programme include: coverage of additional areas of social policy (e.g. physical safety/security and complex needs/homelessness); emphasis on the new context for social policy making (e.g. devolution and BREXIT); assessment of a broader range of multidimensional outcomes within our quantitative analysis; and the inclusion of additional breakdowns (e.g. migration status). The programme also has a forward-looking component, identifying the key challenges for social policy in the 2020s.

The current paper is part of work-package 3 of the broader programme, which provides in-depth and cross-cutting analysis of trends in social policies over the period between the May 2015 General Election and early 2020 (the eve of the COVID-19 pandemic). The work-package includes analysis within and across ten major social policy areas (social security; health; social care; early years; compulsory school age education; higher education; employment; safety and security; social mobility; and homelessness / complex needs). The analytical schema for the social policy analysis undertaken within the programme is set out in Figure 1 below. The

figure shows the structure of the analysis, which will address (1) broad policy goals for each policy area; (2) the actual policies and measures adopted in each area; (3) public expenditure trends (including where feasible and meaningful per capita and in relation to demand / need); (4) inputs and outputs (how resources were spent and what was produced from this); (5) overall outcomes achieved.

Analytical schema for public expenditure and social policy analysis



Source: adapted from Lupton et al (2013). Note: Arrows denote steps in the analytic chain but not causality through the chain. The background circle denotes the broader universe of other policies, the economy and society, which shape all stages.

More information and other publications in the series are available at the SPDO programme website: [SPDO research programme \(sticerd.lse.ac.uk/CASE\)](http://sticerd.lse.ac.uk/CASE).

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1. Introduction and overview

Good physical and mental health and longevity are widely viewed as fundamental societal objectives - as basic goals or capabilities that should be protected and promoted by all Governments. The right to the highest possible standard of physical and mental health, as well as the right to life, are recognised as basic human rights in several international treaties that the UK has signed up to, while avoidable morbidity and mortality, and their unequal distribution, are widely viewed as sources of social injustice. In the UK, the principle of universal access to healthcare based on need not ability to pay has underpinned the operation of the National Health Service since its creation in 1948. In addition, the Health and Care Act (2012) established a new framework of statutory duties to promote good physical and mental health outcomes and to reduce health inequalities.

1.1 Aims and objectives

In this research report, we look back and assess the progress that was made in promoting good physical and mental health and longevity, and reducing mortality and morbidity inequalities, over the five-year period between May 2015 and early 2020, when the COVID-19 pandemic struck. The report has been written as an input into the broader *Social Policies and Distributional Outcomes in a Changing Britain* research programme (SPDO), which provides a comprehensive and in-depth examination of developments in policies, public expenditure and outcomes across ten major social policy areas between May 2015 and the eve of the COVID-19 pandemic in early 2020. Similar research reports settings out detailed findings for each individual social policy area are available on the SPDO website and the SPDO programme report (Hills and Vizard 2021) provides an overview.

The SPDO research programme itself builds on previous similar research programmes that assessed social policy developments under the Conservative-Liberal Democrat Coalition Government that was in power between May 2010 and May 2015 and the three Labour Governments that were in power between May 1997 and May 2010. Collectively, this body of work now provides a continuous assessment of the social policy records of incumbent governments over a period of almost 25 years and the full set of findings can be accessed on the CASE website. Our assessment of developments in health during the five-year period between May 2015 and early 2020 in the current report builds on previous similar assessments of developments in health covering these previous periods (Vizard & Obolenskaya, 2013, 2015, 2016).

In assessing the health record of the three Conservative Governments that were in power over this period between May 2015 and early 2020, we adopt the same comprehensive and systematic approach to social policy analysis that has been used to assess other social policy areas as part of the *Social Policies and Distributional Outcomes* (SPDO) research programme and in previous similar assessments of the social policy records of the Conservative-Liberal Democrat Coalition and Labour Governments going back to 1997. The analytical framework we use to assess developments within and across different social policy areas during each time-period covers inheritance; high level goals; new policy developments; public expenditure trends (including where feasible and meaningful per capita and in relation to demand / need); inputs and outputs (how resources were spent and what was produced from this); and the overall outcomes achieved, with a particular emphasis on building up evidence on social inequalities. The consistent and systematic application of this common analytical framework ensures that we adopt a consistent approach in our assessments of developments within and across different social policy areas and time periods.

1.2 Context

The context for health policy making during the five-year period between the May 2015 and early (pre COVID-19) 2020 that we examine in this report was challenging in three key respects. First, the majority Conservative Government led by David Cameron that came to power after the General Election in May 2015 did so within the broader context of a series of fundamental long-term policy challenges driven by rising and different health needs and demands and the changing circumstances and conditions of the 21st century. Internationally, population ageing and increasing longevity with chronic and multiple conditions including dementia, Alzheimer's and frailty are in many ways associated with long-term medical advances and broader societal improvements. However, these require radical social changes and processes of adaption including transformed health and care services and sustainable and equitable long-term funding streams to address their implications. Rising obesity and diabetes, health inequalities and adaptation to ongoing technological and medical advances similarly posed fundamental long-term challenges for health and broader social and public policy when the new Conservative majority Government came to power in 2015.

The SPDO overview report (section 2, Vizard and Hills 2021) highlighted the extent of the demographic challenges for the welfare state and public services, including health and care, that were ongoing when the Cameron led majority Conservative Government assumed power in May 2015. Using ONS population estimates, we showed that the UK population grew from

58.9 million in 2000 to 66.8 million people in 2019, with the number of people aged 65 and above, particularly the 'oldest of the old' (those over the age of 85), who have the highest utilization of health and care, growing faster than the overall population. ONS population projections from before the pandemic indicated a 45% increase in the population aged 65 and over between 2020 and 2045: from 12.6 million to 17.6 million with the number of over 85s increasing from around 1.65 million in 2019 to over 3 million by mid-2040s (see chapter 2 in Vizard and Hills (2021) and Office for National Statistics, 2019g for further details). It was anticipated that this projected increase in the elderly population would exert substantial pressure on the future costs of health and social care as spending per person is particularly high for older people, increasing substantially after the age of 65 and again after 85 (see for example Figure 2.3 in Licchetta and Stelmarch (2016)). Office of Budget Responsibility forecasts identified that a substantial increase in health and long-term care spending would be necessary just to keep pace with population ageing and non-demographic cost push factors including rising relative health costs and technological change (Office for Budget Responsibility, 2017).

Second, the broader fiscal and economic context for addressing and responding to the major social policy challenges associated with the demographic transformation and other factors driving rising need and demand for health remained unfavourable after the May 2015 General Election. At the beginning of the second decade of the 21st century, following on from the 2007/8 financial crisis and the subsequent economic recession and the emergence of a very substantial fiscal deficit and national debt, the Coalition Government that assumed power in May 2010 had adopted an austerity based fiscal adjustment programme which relied on cuts to public expenditure rather than additional taxes as the primary means of improving the public finances. This was accompanied by a welfare reform programme intended in part to cut the social security budget and had resulted in cuts to 'unprotected' budget areas in England (including in adult social care) and historically low public expenditure growth in 'protected' areas such as health. The austerity based fiscal adjustment programme remained in place and the scope for public expenditure increases remained substantially constrained even in relatively protected areas. In addition, broader economic fundamentals remained challenging after the May 2015 General Election. Recovery from the 2007/8 financial crisis and recession had been slow and the five-year period under examination was characterised by continued low growth in GDP, productivity, wages and household income. Partly because of these factors, child poverty was also rising with a statistically significant increase in relative child poverty after housing costs occurring during the 2010s (Vizard and Hills 2021, Lupton et al 2016, Vizard and Obolenskaya 2023).

Third, the five-year period we examine in this report was also a particularly tumultuous one politically. As documented in the SPDO overview report (Vizard and Hills 2021), the five-year period under examination spans three separate majority Conservative Governments. Moreover, the focus of politics was overwhelmingly on the UK's exit from the European Union following the 2016 referendum, from shortly after the 2015 General Election until the global coronavirus pandemic struck in early 2020. Following the May 2015 General Election, the incoming majority Conservative Government was led by David Cameron, who had also led the Conservative-Liberal Democratic Coalition Government which had previously been in power between May 2010 and May 2015. The period subsequently witnessed the Brexit referendum and the transition of the leadership of the Conservative Party from David Cameron to Theresa May in June 2016, as there was no requirement for a further general election to be called until summer 2020 under the fixed term parliament act. However, Theresa May's need to increase her majority to secure the delivery of her Brexit model - combined with relatively high polling in early 2017 - resulted in a general election being called in June 2017. There was then a further tumultuous period which continued to be dominated by the politics of Brexit, with May failing to gain the support of Parliament in relation to a critical Brexit trade agreement, followed by a Conservative Party leadership election in July 2019, after which Boris Johnson replaced May as Prime Minister. A further summer of political turmoil ensued, culminating in the failure to deliver Brexit before the 31st October 2019 deadline, with a further general election taking place on 12th December 2019. The 2019 General Election resulted in a large majority and the formation of a new Boris Johnson led Government. However, within three months of the 2019 General Election, the UK had entered the first COVID-19 lockdown (c.f. Vizard and Hills 2021).

1.3 Overview

Against this backdrop, the five-year period under examination in this report will be remembered as years that were sandwiched between two era defining events: the decision to hold the Brexit referendum and the COVID-19 pandemic. The current report builds up a detailed examination of developments in health between the General Election in May 2015 and early 2020, the eve of COVID-19. We report on developments in health up to the point at which the pandemic struck using the analytical framework outlined above under the headings inheritance, goals, policy developments, expenditure, provision (inputs and outputs) and outcomes. Below, we provide a brief overview of our key findings under each of these headings followed by a summary of our cross-cutting findings on the main limitations and weaknesses of the health system in early 2020.

Inheritance

The majority Conservative Government led by David Cameron that came to power after the General Election in May 2015 inherited a health landscape in England that had been transformed by a major programme of health reforms that had been undertaken under the Coalition. Following on from the reform programme, the newly established NHS England had published its Five Year Forward View plan in 2014, which set out three high level objectives that provided a strategic framework for policy direction after May 2015: delivery of integrated health and care services across England by 2020, by developing and implementing new integrated care models and strengthening of out-of-hospital care; 'control of the demand side', through a major shift towards a more activist prevention and public health agenda, with intensified efforts to address obesity, smoking and alcohol consumption and health inequalities; and parity of esteem for mental health (NHS, 2014: 37). The adoption of the austerity based fiscal adjustment programme under the Coalition had been associated with a substantial resource squeeze in health between 2010 and 2015 with increases in public expenditure on health in the UK failing to keep pace with need and demand. Between 2010 and 2015, there had been a break with the previous period of rapid supply side expansion of the first decade of the 21st century and signs of mounting pressure on the NHS such as increasing waiting lists were already evident prior to the 2015 General Election. Additionally, while social arrangements for universal healthcare access and equity remained strong internationally, and while there had improvements in some areas such as overall smoking prevalence, the UK's health outcomes across several indicators including in relation to life expectancy, infant mortality and some cancer outcomes lagged behind several comparator countries. Moreover, prior to the 2015 General Election, there were already indications of adverse trends against some key indicators of mortality outcomes and inequalities, including in relation to life expectancy.

Goals

Unlike the period under the Coalition between May 2010 and May 2015, the period between May 2015 and May 2020 was *not* a period of radical health reform and the 2015, 2017 and 2019 Conservative Manifestos were characterised by a notable *absence* of major high level proposals for further (additional) health reforms of the type that had been implemented under the Coalition. All three of the majority Conservative Governments that were in power between May 2015 and early 2020 - like their predecessor the Conservative-Liberal Democrat Coalition led by David Cameron - made high level commitments to a tax funded NHS, free at the point of delivery, based on need not ability to pay. Political manifestos and major speeches and announcements also made high-level political commitments to

increasing the workforce and training; to integrated care and pooled budgets; to implementing the recommendations of the Frances Review; to a cancer strategy, a national diabetes plan and measures to address dementia and obesity; to parity of esteem for mental health; and to a programme of infrastructural improvements. The Government's annual mandates to the NHS put central emphasis on implementation and delivery of the NHS Five Year Forward View plan. Prime Minister Theresa May's 'burning injustice' agenda identified health and mortality inequalities and increased social recognition of mental ill-health while May's speech in July 2018, the 70th anniversary of the NHS, signalled an acceleration of resource allocation going forward to 2023/24. However, little or no progress was made in addressing or resolving the fundamental challenge of how to generate long-term ring-fenced and sustainable funding for health and care to meet the challenges of population ageing and rising need and demand in the 2020s of the type envisaged in the Barker Commission in 2014.

Policies

There was an essential continuity in health policy before and after the 2015 General Election, with the radical health reform programme that had been put into place under the Coalition between 2010 and 2015 continuing to be rolled out and to bed down after the General Election in May 2015. Health policy advances during the five-year period under examination included progress towards the delivery of integrated and person-centred care; new devolved arrangements for health; increased policy focus on mental health; and several new policy, fiscal and regulatory measures in public and preventative health relating to obesity, smoking and clean air. However, policy developments relating to the 'hostile environment' intensified, raising key concerns around access to healthcare and health protection gaps for some groups, and key recommendations on obesity were not followed through. By early 2020, the eve of the COVID-19 pandemic, there were multiple warnings that progress towards key goals set out in the NHS Five Year Forward View plan, such as progress towards integrated health and care systems and the upscaling of out-of-hospital care and prevention, had been too slow. Additionally, the efficacy of some key aspects of the Coalition's reform programme were being questioned on the eve of COVID-19, including some elements of the rules relating to competition and procurement, which were increasingly viewed as a barrier to integrated care; the 'bottom up' major drive on preventative and public health and health inequalities which had been foreseen in the Coalition's reform programme but which had not materialised; and arrangements for overall responsibility and accountability for improving health outcomes and reducing health inequalities, which were increasingly viewed as too weak.

New strategic plans for the 2020s were published by NHS England and Public Health England before the pandemic struck. However, while the Government's delayed infrastructural plan was published in late September 2019, the full NHS workforce plan was not, and a major and comprehensive cross-governmental health inequalities strategy of the kind called for by many health experts had not been put into place.

Expenditure

Real public sector expenditure on health in the UK increased at a faster rate during the five-year period between the May 2015 General Election and the eve of the pandemic than under the Coalition between 2010 and 2015. Nevertheless, austerity and the resources squeeze nevertheless continued after the 2015 General Election. Following on from the exceptionally low rates of public real public expenditure on health under the Coalition between 2010 and 2015, this meant that there was relatively low spending during the second decade of the 21st century as a whole, with annual average rates of increases that were substantially below the historical average and with average annual increases public expenditure (measured in both real and volume terms) failing to keep pace with increases in simple indicators of need and demand. In England, following on from the May 2015 General Election, 'relative protection' of the NHS England budget was combined with cuts in other broader elements of the DHSC budget, including cuts to public health. While expenditure on mental health increased relative to other areas of the NHS England budget, the proportion spent on out-of-hospital care failed to increase. Public expenditure on health in the UK continued to be mainly financed through general taxation and national insurance, and charging in general remained low, although revenue from car parking and charges raised through the immigration health surcharge increased. Government financed expenditure as a share of total (public and private) health expenditure remained relatively high on the eve of the pandemic, and spending on private health insurance relatively low, although out-of-pocket spending did increase during the 2010s. Total (public and private) expenditure on health as a share of GDP was just above the EU-14 average at about 10% on the eve of the pandemic (in 2019). However, looking at per capita spend in 2019 (in \$PPPs), the UK was second lowest in the G7 and lower than in several comparator countries including France and Germany by a considerable margin when the global COVID-19 pandemic struck.

Healthcare provision (inputs and outputs)

Growth in public service healthcare inputs and outputs in the UK was considerably slower during the second decade of the 21st century than the first. Up to 2018 (and using ONS measures of public service healthcare inputs and outputs), average rates of input and output growth remained at broadly similar rates to those recorded under the Coalition during the first half of the decade, and below the average rates of growth recorded during the 2000s. Average annual increases in ONS measured public service healthcare productivity remained relatively high - providing one indication that the NHS was doing 'more for less' during the second decade of the 21st century. However, there was substantial evidence of pressure mounting up across multiple healthcare indicators between May 2015 and the eve of the COVID-19 pandemic in early 2020, indicating a misalignment between healthcare need and demand on the one hand and healthcare provision on the other, and adding to the pressures that had previously built up under the Coalition. This included mounting workforce pressures, with very substantial healthcare workforce unfilled vacancies on the eve of the COVID-19 pandemic, particularly in nursing; substantial further increases in waiting times across multiple health services and indicators, coupled with an increasing trend in urgent operation cancellation; high general and acute bed occupancy, particularly over winter 2017/18 and in late 2019; adverse trends in avoidable hospital admissions and high rates of delayed discharges. Trends in reported patient experiences were mixed, with many aspects of patient experience remaining positive, but some areas and dimensions of experiences remaining systematically worse; signs of stalling progress or retrogression against some indicators; and continued evidence of inequalities by characteristics such as socio-economic disadvantage and ethnicity. Public satisfaction with the NHS also declined between 2015 and 2018 (with a small increase in 2019) while OECD data suggests that, on the eve of the pandemic, the UK lagged behind several comparator countries in relation to key indicators such as doctors and nurses per head, the availability of beds and access to some medical equipment.

Outcomes

Access to healthcare remained highly equitable by international standards during the five-year period under examination. Nevertheless, on the eve of the COVID-19 pandemic, there were indications that health insecurity and unmet need for healthcare due to long waiting times were on the rise as well as concerns that 'hostile environment' policies were undermining universal access to healthcare for some groups. The prevalence of physical and mental ill-health continued to increase after 2015 with inequalities in health outcomes widening in some instances. There was some progress relating to sugar-sweetened soft drinks which was targeted by the new Soft

Drinks Industry Levy, smoking prevalence, and a small further decline in population alcohol consumption. In addition, while smoking inequalities remained substantial, there was a narrowing of the socio-economic gap between 2014 and 2019. However, adult obesity further increased between 2015 and 2018 and adult and child obesity inequalities widened, while a growing body of evidence also pointed toward concerning levels of food insecurity in the years before COVID-19 struck. Additionally, evidence of a slowdown in improvements across a range of mortality indicators and the widening of inequalities against some longevity and mortality indicators during the second decade of the 21st century is one of the most striking findings in this report. There were adverse developments in relation to trends in life expectancy, standardised mortality rates, avoidable mortality rates, heart disease deaths, drug poisoning deaths, deaths amongst homeless people, suicides and excess deaths. Life expectancy inequalities had also widened *before* the pandemic struck, particularly for females, while the UK's position in international mortality rankings continued to lag behind comparator countries against several key indicators.

1.4 The state of health on the eve of COVID-19

Following on from the period we examine in this report, in early 2020, ordinary life across the world came to a halt when the coronavirus pandemic struck. Dealing with COVID-19 related mortality and morbidity inevitably put an extraordinary additional burden on the UK health system as it did on health systems globally. The COVID-19 pandemic resulted in an unprecedented global health shock - a sudden surge in health needs that occurred simultaneously across multiple countries and regions. In addition to the direct effects of COVID-19 in terms increased mortality and morbidity, further challenges for the health system resulted from the displacement and postponement of routine services and activities for prolonged periods of time and from additional health impacts associated with the lockdown and restrictions. Backlogs of patients increased further, both visibly on waiting lists and invisibly where medical treatment was not sought during the public health crisis or routine care, diagnostics and checks were not provided (Public Accounts Committee 2023).

At the time of finalising this report (in Spring 2023), the Public Inquiry into COVID-19 in the UK has just completed its preliminary hearings. The Inquiry has an extensive terms of reference and will address a wide range of issues including pandemic preparedness, capacity and resilience; the response to the pandemic through the health system, broader economic and social policy measures and legally enforced lockdown and restrictions; the impact of the pandemic and the public policy response, including health and mortality impacts, broader public policy impacts (for example in relation to adult social care and education) and broader economic and social

impacts (including impacts on the economy, on care home residents, vulnerable children and on broader wellbeing). In addressing these terms of reference, the Inquiry will consider unequal impacts of the pandemic by characteristics such as deprivation, ethnicity, disability and gender. It is also anticipated that the Inquiry will consider a series of critical human rights concerns relating to the protection of life and access to essential health and medical care in care homes, including, *inter alia*, access to personal protection equipment and essential medical treatment, the large scale transfer of hospital patients to care homes without testing and the adequacy of associated official guidance and regulations in the initial stages of the pandemic, and the use of do not resuscitate orders and visiting restrictions within care homes as the pandemic progressed. Finally, the Inquiry will draw lessons for the future, feeding into broader reflection on how resilience to health shocks can be strengthened both nationally and globally (Independent Public Inquiry to examine the COVID-19 pandemic in the UK 2023).

Like the other papers in the SPDO research programme, the analysis of health developments in this report stops in early 2020 - the eve of the COVID pandemic. That is, we have *not* attempted to provide an assessment of the seismic impact and consequences of the public health crisis that struck in early 2020 within this report or of the state of the health system in the aftermath of the public health crisis. However, in building up detailed evidence on goals, health policy developments, public expenditure trends, service provision and health outcomes during the five-year period running up to the public health crisis, we believe that the findings in the report are of critical importance in terms of understanding the overall state of the health system when COVID-19 struck. The pre-existing patterns of risks and vulnerabilities from the eve of the pandemic also help to explain the impact that COVID-19 has had on different groups, providing essential context for the further widening of mortality inequalities that occurred when the pandemic struck, as well as for understanding the nature and scale of the ongoing pressures on the health system in its aftermath. For these reasons, our analysis concludes with an overall assessment of the state of health on the eve of the COVID-19 pandemic. Looking across our findings on inheritance, goals, policies, expenditure, inputs and outputs, and outcomes, we highlight fifteen key findings which raise serious concerns about the limitations and weaknesses of the health system when the global pandemic struck.

1. On the eve of the COVID-19 pandemic, the NHS remained a universal health system, free at the point of delivery based on need not ability to pay - however, little or no progress had been made in 'future proofing' the NHS by addressing the fundamental challenge of how to deliver a sustainable NHS funding model for the 2020s.

2. The Coalition's health system reforms continued to be rolled out and to bed down after the May 2015 General Election - but had failed to deliver on the triple challenges of health inequalities, public and preventative health, and integrated and person-centred care, when the pandemic struck.
3. There were some important policy advances during the five-year period under examination - including some (albeit limited) progress towards integrated and person-centred care, increased policy focus on mental health, new fiscal and regulatory measures in preventative health, and high-level direction on health inequalities under Theresa May - but recommended policies on obesity were not followed through.
4. Public expenditure on health increased at a faster rate than had been the case under the Coalition Government but austerity and the resources squeeze continued after the 2015 General Election with spending increases remaining low historically and failing to keep pace with need and demand during the second decade of the 21st century.
5. 'Relative protection' of the NHS England budget was combined with cuts in other elements of Department of Health and Social Care spending - including cuts to public health - while projected spending under the financial plans put into place before the pandemic remained less than experts deemed necessary to meet need and demand going forward.
6. The supply side (healthcare capacity) continued to expand at substantially lower rate than had been the case during the first decade of the 21st century - but average annual increases in public services healthcare productivity remained high, indicating that the healthcare system continued to do 'more for less'.
7. Systemic pressures on the healthcare system continued to mount up - with waiting for medical treatment increasing substantially between the General Election in May 2015 and early 2020, and 4.43 million patients in England already on waiting lists for hospital treatment on the eve of the COVID-19.
8. There were additional signs of capacity pressures against multiple other indicators - with workforce shortages, primary care deficits, delayed discharges, bed occupancy pressures and blanket postponement of operations also being evident within the English healthcare system in the run up to COVID-19.
9. Trends in reported patient experience were mixed with many aspects of patient experiences remaining positive and improvements against some indicators - however, some areas of patient experience including experiences of community mental health services remained substantially worse, there were signs of deteriorating experiences against key indicators including in relation to person-centred and integrated care, inequalities in experiences of accessing general

practice and cancer care by socioeconomic deprivation and ethnicity persisted, and overall satisfaction with the NHS was at its lowest level for a decade in 2018.

10. The period running up to the pandemic was characterised by repeated warnings from experts relating to austerity effects, lack of financial sustainability and the weakening of the healthcare system – with major concerns regarding the erosion of healthcare resilience and the capacity of the healthcare system to cope with health shocks such as a severe outbreak of flu being highlighted in the years running up to COVID-19.
11. The extent of the extreme winter pressures on the healthcare system in winter 2017/18 provided an ‘early warning’ of the extent of capacity constraints and vulnerability of the older frail population to infectious disease, with high bed occupancy pressures, blanket cancellation of operations and a period of high excess deaths, following on from a similar episode of high excess deaths in 2014/15.
12. Access to healthcare remained highly equitable by international standards on the eve of COVID-19, but there were warnings that health insecurity and unmet need for healthcare due to long waiting times were on the rise and concerns that ‘hostile environment’ policies were undermining universal access to healthcare for some groups.
13. The proportion of the population reporting bad or very bad general health or conditions had been rising when the pandemic struck while mental ill-health prevalence was higher during the second decade of the 21st century than the first and obesity inequalities had been widening.
14. Adverse trends in mortality and mortality inequalities pre-dated the coronavirus pandemic, with improvements in mortality slowing down and stalling during the second decade of the 21st century and life expectancy inequalities widening.
15. The distribution of good physical and mental health, and of mortality and longevity, remained highly unequal when the pandemic struck – with sharp disparities by socio-economic deprivation and by other characteristics including ethnicity.

Overall, we conclude that by the end of the five-year period under examination, and on the eve of the COVID-19 pandemic, progress towards service transformation and integrated and person-centred health and care had been uneven and too slow; while the ‘bottom up’ drive on preventative and public health and health inequalities foreseen in Coalition’s reform programme had not been delivered; and no progress had been made in securing new long-term ring fenced and sustainable health and care funding streams for the 2020s. Moreover, when the pandemic hit, there

were multiple indications of a substantial gap between health needs and demand on the one hand and provision on the other, with mounting evidence of increasing waiting, workforce shortages, extreme winter pressures and eroded resilience to shocks, while health and mortality outcomes were deeply unequal, obesity and mental health prevalence rates had increased, improvements in multiple mortality indicators had stalled, and life expectancy inequalities had been widening. As a result, when the global coronavirus pandemic struck in early 2020, the challenges of dealing with the sudden seismic surge in health needs associated with COVID-19 mortality and morbidity were therefore superimposed on top of this formidable list of policy challenges from before the pandemic struck.

1.5 Limitations

We acknowledge that the analysis in the report is limited in its scope in several important respects. First, we report on trends in public expenditure and many outcomes for the UK as a whole, and there is some discussion of key policy developments and outcomes in Scotland and Wales. However, health is a devolved area of social policy and much of the analysis has a focus on England. Second, the analysis in the report uses the most recent data that was available when the analysis was undertaken and is not intended to overlap with the pandemic period. However, in some cases, the evidence we present does not cover the entire five-year period under observation, and in other cases, data coverage may overlap somewhat with the early pandemic period. Third, while our specific focus in this report is on building up a detailed evidence base on health policies, public expenditure and outcomes between May 2015 and early 2020, we recognise the critical importance of both the social care system and broader social and economic determinants and drivers of health including poverty to this analysis. Readers with a particular interest in the detailed evidence on adult social care between May 2015 and early 2020 are referred to a companion paper within the SPDO research programme (Burchardt et al., 2020b) while other stand-alone papers in the SPDO series provide detailed and comprehensive evidence on developments between May 2015 and early 2020 in eight further major social policy areas (social security, employment, education, early years, higher education, physical safety and security, homelessness and social mobility). Additionally, the SPDO overview paper (Vizard and Hills 2021) provides cross-cutting analysis looking across these major social policy areas and detailed separate SPDO programme papers are available on patterns and trends in economic inequalities and child poverty during the 2010s.

1.6 Organisation of this report

The organisation of this report reflects the SPDO analytical framework explained above. Following on from this introductory section, the report has seven further substantive sections and a conclusion.

- **Section 2 ('inheritance')** provides context for the later analysis in this report by examining the inheritance of the incoming majority Conservative Government led by Prime Minister David Cameron following the May 2015 General Election in terms of the major legacies of its immediate predecessor, the Conservative Liberal-Democrat Coalition Government that was in power between May 2010 and May 2015.
- **Section 3 ('goals')** examines the health-related high-level objectives and policy aims of the three Conservative majority Governments that were in power between May 2015 and early (pre-pandemic) 2020, as evidenced in political manifestos, high-level speeches and announcements and the Government's accountability mandates to the NHS.
- **Section 4 ('policies')** examines major health policy developments under the three Conservative majority Governments that were in power between May 2015 and early (pre-pandemic) 2020 including key healthcare policy developments; key developments in public and preventative health; Brexit related policy developments; and the health policy agenda on the eve of COVID-19.
- **Section 5 ('expenditure')** examines resources allocated to health between May 2015 and early (pre-pandemic) 2020, including overall trends in public expenditure on health in the UK; trends and breakdowns of the health budget in England; comparisons in public expenditure growth compared to growth in need and demand; trends in total (public and private) expenditure on healthcare; and international comparisons.
- **Section 6 (healthcare provision 'inputs and outputs')** examines trends in healthcare provision under the three Conservative majority Governments that were in power between May 2015 and early (pre-pandemic) 2020 including trends in ONS measured healthcare inputs and outputs; signs of mounting pressure on the healthcare system such as workforce shortages, growing waiting lists, bed occupancy pressures and cancelled operations; and trends in quality and patient experiences.
- **Section 7 ('outcomes')** examines trends in health outcomes and inequalities under the three Conservative majority Governments that were in power between May 2015 and early (pre-pandemic) 2020

including in relation to universal and equitable healthcare access; good physical and mental health; risk factors; and longevity and mortality.

Finally, the concluding section (section 8) provides an overall assessment of the state of health on the eve of the COVID-19, reflects on the formidable policy challenges for the 2020s that were already apparent before the pandemic struck and makes some final observations looking forward.

2. Inheritance

In this section, we provide context for the later analysis in this report by examining the inheritance of the incoming majority Conservative Government led by Prime Minister David Cameron following the May 2015 General Election in terms of the major legacies of its immediate predecessor, the Conservative Liberal-Democrat Coalition Government that was in power between May 2010 and May 2015. We begin by providing an overview of key policy developments under the Coalition between 2010 and 2015 (section 2.1). Next, we review the resources squeeze that occurred under the Coalition between 2010 and 2015 (section 2.3). We then briefly describe the break with the previous substantial supply side expansion that occurred during the first half of the 2010s and the signs of pressure on the health system that were already beginning to mount up before the 2015 General Election (section 2.3). Finally, we provide further context in relation to trends in health outcomes and inequalities (section 2.4).

Key findings (inheritance)

- The majority Conservative Government led by David Cameron that came to power after the General Election in May 2015 inherited a health landscape in England that had been transformed by a major programme of health reforms that had been undertaken by the Coalition.
- The adoption of an austerity based fiscal adjustment programme under the Coalition had been associated with a substantial resource squeeze in health between 2010 and 2015 with increases in public expenditure on health failing to keep pace with need and demand.
- There had also been a break with the previous period of rapid supply side expansion and signs of mounting pressure on the NHS such as increasing waiting were already evident prior to the 2015 General Election.
- Additionally, while social arrangements for universal healthcare access and equity remained strong internationally, and while there had improvements in some areas such as overall smoking prevalence, the UK's health outcomes across several indicators including in relation to life expectancy, infant mortality and some cancer outcomes lagged behind several comparator countries. Moreover, prior to the 2015 General Election, there were already indications of adverse trends against some key indicators of mortality outcomes and inequalities, including in relation to life expectancy.

2.1 The Coalition's key policy legacies

2.1.1 Health reforms: the Health and Care Act 2012

The majority Conservative Government led by David Cameron that came to power after the General Election in May 2010 inherited a health landscape in England that had been substantially transformed. A radical and at the time controversial health reform programme had been implemented under the Conservative Liberal-Democrat Coalition Government that had been in power between May 2010 and May 2015 (also led by David Cameron) and after the 2015 General Election, there was an essential policy continuity, as elements of this reform programme continued to be rolled out and to bed down. As documented in our previous paper (Vizard & Obolenskaya, 2015), the Health and Social Care Act (2012) reshaped the landscape for both healthcare and public health, with a myriad of new bodies and arrangements being introduced simultaneously. Key elements of the health reform programme included the operational independence (or 'autonomy') of the NHS and the creation of the arms-length independent body NHS England; radically new arrangements for health organisation, commissioning and management; a heavy emphasis on competition; and a new framework of statutory duties for improving health outcomes and reducing health inequalities. In parallel, there were major reforms to public and preventative health, with a major role for local government, new local health and wellbeing boards, and the creation of a new central public health agency (Public Health England). The seismic nature of the Coalition's health reform programme – and the strength of the opposition and political tensions and battles that surrounded the enactment of the 2012 Act, is documented in Timmins (2012). For further details, see **Figure 1**.

The health reforms were underpinned by the Coalition's 'new public services' model. This put central emphasis on competition and provider diversity, service decentralisation and a smaller central state. More specifically, this new public services model viewed the key role for the central state as being a guarantor of outcomes, quality and minimum standards with a mixed economy of service provision and delivery (public, private, and third sector), new rules around competition and anti-competitive behaviour, and within the context of a localism agenda and an emphasis on service de-centralisation and devolution. In addition, there was a shift away from performance management based on central 'top down' targets, which had been widely used to drive health improvement by the successive Labour administrations which had been in power prior to 2010. Coupled with the operational independence ('autonomy') of the NHS was viewed as ending "micromanagement" and politicisation of the NHS (Timmins, 2018).

Labour had also implemented a far-reaching programme of health reforms emphasising competition and the creation of autonomous trusts over the period 1997-2010 and there were important continuities between Labour's health reform programme and the health reforms implemented under the Coalition between 2010 and 2015. However, whereas Labour's health reform programme was introduced gradually against a backdrop of expenditure and supply side expansion, the major health reform programme implemented under the Coalition was unprecedented in terms of its magnitude and speed and had been implemented against a background of austerity and resource constraints.

Our previous paper (Vizard & Obolenskaya, 2015) highlighted the need for an evidence base to determine the overall impact of the Coalition's new health arrangements on quality, outcomes and the reduction of inequalities. In May 2015, when the Cameron Government came to power, a myriad of new arrangements and bodies brought about by reforms remained untested and in their infancy. The reforms themselves also remained highly controversial. In 2015, key concerns included the role of competition and potential expansion of the role of the private sector as well as the overall framework of political accountability and responsibility for improving health outcomes and reducing health inequalities, and whether adequate arrangements were now in place. Another key concern related to the localism agenda and the role of local government in spearheading and delivering improvements in preventative health and health inequalities. Here, reservations included a possible lack of co-ordination and alignment of central and local public action on preventative health and concerns relating to the decentralisation of public health responsibilities and whether local authorities had been given the range of powers and policy levers necessary to spearhead the delivery of preventative health and to reduce health inequalities. Additionally, when the Conservative majority Government came to power in 2015, concerns were being expressed that the Coalition's health reform programme - and the organisational changes and disruption it had brought about - was diverting attention away from major contemporary policy challenges including population ageing, the increasing longevity with multiple chronic and complex conditions including dementia, Alzheimer's and frailty, the need for integrated health and social care, and rising mental ill-health, obesity and diabetes (Glennerster, 2015; Vizard & Obolenskaya, 2015).

Figure 1 Key elements of the health reform programme implemented by the Coalition

- **Operational independence ('autonomy') of the NHS and overall framework of political responsibility and accountability**
 - The Coalition's reform programme introduced radical changes to the overall framework of political responsibility and accountability for health. Under the Health and Social Care Act (2012), the Secretary of State retained overall ministerial responsibility to Parliament for the provision of the health service in England.
 - However, under the Act, rather than having direct responsibilities for the provision of health services, the Secretary of State commissions outcomes from NHS England, which is an operationally autonomous body with an independent Board.
 - Annual mandates for NHS England specified by the Secretary of State for Health set the objectives that NHS England is required to achieve and is a further mechanism for promoting democratic accountability.
- **Focus on outcomes and a new framework of statutory duties for improving health outcomes and reducing health inequalities**
 - The Health and Social Care Act (2012) established 'outcomes' as the primary focus of the NHS.
 - New outcome-orientated monitoring frameworks such as the NHS Outcomes Framework, the Public Health Outcomes Framework, and the Clinical Commissioning Group Outcomes Framework were introduced in the years following the Act (although these were notably not associated with a system of targets).
 - The Act also established a framework of statutory duties on the Secretary of State to promote a comprehensive NHS designed to secure improvement in physical and mental health; to uphold the NHS Constitution; to improve the quality of services; and to improve health outcomes and reduce health inequalities.
 - This framework of statutory duties cascades down from the Secretary of State to 'autonomous' health bodies such as NHS England, PHE, CCGs and HWBs, which also have statutory duties to promote health outcomes and reduce health inequalities.
 - However, arrangements for accountability and legal enforcement of these duties remained vague.
- **New arrangements for health commissioning, organisation management**
 - Key changes to the policy landscape for the commissioning management and organisation of health services in England included:
 - Abolition of strategic health authorities;
 - Compulsory and time-bound replacement of Primary Care Trusts (PCTs) with autonomous Foundation Trusts, including a new failure regime for providers that are financially unsustainable;
 - the creation of 211 GP-led clinical commissioning groups (CCGs) to replace PCTs, with responsibilities to plan and commission hospital and community services for local populations.

- **The role of competition**
 - The Health and Social Care Act (2012) put heavy emphasis on competition and applied a “any qualified provider” rule to commissioning, intended to promote competitive tendering between public, private and third sector providers.
 - Monitor was given new responsibilities as an economic regulator and to combat anti-competitive behaviour.
- **Quality** The role of the quality regulator (the Care Quality Commission) in enforcing minimum standards was strengthened, while HealthWatch England and local bodies were given additional responsibilities for consumer protection and patient involvement.
- **New arrangements for public health, with a major role for local government** New arrangements for public health included the creation of a new autonomous national executive agency for promoting public health (Public Health England). The Health and Care Act (2012) also established a major new role for local authorities in relation to public health. Health and Wellbeing Boards were created as parts of local authorities with statutory responsibilities to improve public health, plan for local needs and tackle health inequalities. The public health budget was devolved and a new public health premium was announced. New arrangements for health devolution were also introduced, including flagship devolved health and care arrangements in Greater Manchester (c.f. 4.2.5; Lupton et al. 2018).

Source: Vizard and Obolenskaya (2015)

2.1.2 Giving equal priority to mental health

The importance of giving equal priority to mental health in terms of both resource allocations and equality of access to and quality of care, had moved up the political and policy agenda during the Coalition years. The aim of achieving ‘parity of esteem’ for physical and mental health had been recognised in the Coalition’s Mental Health Strategy in 2011 (HM Government, 2011). The Health and Social Care Act 2012 had introduced a duty of the Secretary of State for Health to promote both physical and mental health and the revised NHS Constitution included a commitment by the NHS to address both mental and physical health. In 2014, the NHS Five Year Forward View had set out a far-reaching agenda to achieve “genuine” parity of esteem by 2020:

“Over the next five years the NHS must drive towards an equal response to mental and physical health, and towards the two being treated together... We have a much wider ambition to achieve genuine parity of esteem between physical and mental health by 2020. Provided new funding can be made available, by then we want the new waiting time standards to have improved so that 95 rather than 75 per cent of people referred for psychological therapies start treatment within six weeks and those experiencing a first episode of psychosis do so within a fortnight. We also want to expand access standards to cover a comprehensive range of mental health services, including children’s services, eating disorders, and those with bipolar conditions. We need new commissioning approaches to help ensure that happens, and extra staff to coordinate such care. Getting there will require further investment (NHS, 2014: Box 3.2)”.

However, despite these advances, mental health services were adversely affected by public expenditure cuts over the period 2010/11-2014/2015. Evidence gathered for the Chief Medical Officers Annual Report on Mental Health points towards a substantial resource squeeze in the early Coalition years coupled with a fall in the number of recipients in community based services (Docherty & Thornicroft, 2015). Media reports further suggested that mental health trusts in England saw their budgets fall by more than 8% in real terms over the course of the Parliament, while community mental health team referrals increased by 20% (Buchanan, 2015). Kings Fund analysis showed that around 40 per cent of mental health trusts experienced reductions in income in 2013/14 and 2014/15 and found evidence of widespread poor quality care, including very limited access to crisis support, over-occupancy of inpatient facilities and high rates of out-of-area placements (Gilburt, 2015). A subsequent update to the analysis concluded that between 2012/13 and 2015/16, the increase in mental health funding was lower than that for acute trusts, and the proportion of mental health trusts that saw a reduction in budgets was growing despite the parity commitment (Gilburt, 2018a). In addition, there was also a statistically significant decline in the overall patient experience score for NHS community mental health services between 2012/13 to 2013/14 (Vizard & Obolenskaya, 2015).

2.1.3 New minimum standards in the wake of the Frances Inquiry

In the wake of the Mid-Staffordshire Foundation NHS Trust scandal, the previous Coalition Government had established a public inquiry into the role of commissioning, supervisory and regulatory bodies in monitoring healthcare at Mid-Staffordshire (the 'Francis Inquiry') which had reported in 2013. This concluded that there had been a widespread failure of the healthcare system, including regulatory as well as management failure, and put forward two hundred and ninety recommendations. Measures introduced during Coalition's period in power in response to these findings included: new fundamental standards of care; a new "duty of candour"; new forms of monitoring including an increased emphasis on patient experience data; strategies to promote safety, dignity and respect; revisions to the NHS Constitution; and a strengthened inspection system (including a new inspection model and system of ratings). The strengthening of the health and social care inspection system was another key recommendation highlighted in the Francis Review and a consultation exercise on a new quality ratings system was undertaken in 2014. The National Institute for Health and Care Excellence (NICE) issued guidelines on "safe" nursing levels in hospitals, while a review of hospitals with higher than expected mortality ratios, led by Sir Bruce Keogh, resulted in 11 trusts

being put into special measures. (c.f. Vizard & Burchardt, 2015a for further details).

2.1.4 Access to healthcare and the 'hostile environment'

New policies introduced under the Coalition between May 2010 and May 2015 had the official stated aim of creating a 'hostile environment' for immigrants who are not legally entitled to be in the UK. In 2012, the then Home Secretary Theresa May flagged up in an interview with the Daily Telegraph the intention "to create here in Britain a really hostile environment for illegal migration" by restricting access of non-EU nations to benefits and public services (Kirkup, 2012; Vizard & Obolenskaya, 2015). Following a further period of consultation, the Immigration Act (2014) was enacted as a cross-departmental measure which limits access to health, justice, tenancy agreements, marriages and bank accounts based on immigration status. The Act also introduced a substantially more restrictive test for those who are 'ordinarily resident' based on the immigration status of having 'leave to remain' (Race Equality Foundation, 2014)

In examining the evolution of 'hostile environment' policies under the Coalition as they relate to health, it is important to note that immigration status related restrictions on free access to NHS care pre-dated the Coalition. There has been a statutory obligation on the NHS to make and recover charges from overseas visitors since 1982 and powers to charge overseas visitors for healthcare in the UK based on an 'ordinary residency' test - together with provisions for cost recovery - were included in the NHS Act (2006). However, policy developments under the Coalition Government after 2010 substantially extended and deepened the system of immigration-based restrictions and exclusions. While the Health and Care Act (2012) included a requirement that services provided as part of the health service in England are free of charge except for where specific enactments specify otherwise, the list of exemptions to free access to healthcare multiplied between 2010 and 2015; a substantially more stringent test of 'ordinary residency' was introduced; and a new system of enforcement was introduced. In addition, the requirement NHS providers process immigration status assessments to establish whether individuals were 'ordinarily resident' in the UK, coupled with the introduction of punitive immigration sanctions for those with an unpaid NHS debt, fundamentally changed the relationship between the health system on the one hand, and the system of immigration control on the other.

Key policy developments under Coalition between 2010 and 2015 included:

- **Extension of charging and cost recovery requirements.** The National Health Service (Charges to Overseas Visitors) Regulations

were introduced in 2011. NHS providers were legally required to make and recover charges for non-exempt services. Further explanation set out by the Department of Health noted that where charges applied, payment should be made in advance in all cases where treatment is 'clinically non-urgent', but that treatment that was clinically 'immediately necessary' or 'urgent' should be provided whether or not charges were paid in advance. However, in such cases, debt would be incurred and recovery processes would be applied¹.

- **NHS debt as a ground of immigration sanctions.** Following a public consultation in 2010, the Home Office amended the immigration rules to include an unpaid debt of £1,000 or more by a person subject to immigration control as a ground to refuse an application for a new visa or extension of stay. These rules came into force in 2011 and applied to invoices raised for treatment provided by NHS hospitals from 1 November 2011 onwards (Department of Health, 2016a).
- **Cross-departmental data sharing.** Evidence provided by the NHS Debtors team suggests that the practice of reporting non-EEA nationals with a debt to the Home Office began in the wake of the 2011 regulations (Independent Chief Inspector of Borders and Immigration, 2019, para. 6.149).
- **Immigration health surcharge, updated cost recovery regulations and new plans to further extend charging.** In 2015, new charges for overseas visitors regulations were introduced, replacing the 2011 regulations.

¹The 'immediately necessary' or 'urgent' rules were not referred to in the 2011 regulations, but were referred to in equality impact assessment of these rules. In addition, a cost recovery implementation plan published in 2014 stated that non-urgent treatment should not be provided unless the estimated full charge is received in advance of treatment. It was specified that treatment considered by clinicians to be 'immediately necessary' (including all maternity treatment) should not be withheld from chargeable patients, even if they have not paid in advance (and that failure to provide immediately necessary treatment may be unlawful under the Human Rights Act 1998). In addition, it was specified that treatment which is not 'immediately necessary', but is nevertheless classed as urgent by clinicians, since it cannot wait until an overseas visitor can return home, should also be provided, even if payment or a deposit has not been secured (Department of Health and Care 2014).

- The new regulations include arrangements for a Immigration Health Charge (the Immigrant Health Surcharge or IHS) requiring non-EU nationals coming to the UK for more than six months or applying for temporary permission to stay from the UK to contribute to healthcare costs. This was introduced prior to the General Election in 2015 and was initially set at £200 per year of leave to remain to access the NHS.
- Updated NHS cost recovery regulations were also introduced just prior to the 2015 General Election (Department of Health, 2016c). The new more aggressive cost recovery arrangements that resulted from these changes meant that NHS trusts were required to share information about people with debt with the DHSC who then shared this data with the Home Office (Miller, 2021).

(Department of Health, 2015a; Race Equality Foundation, 2014)

The myriad of new administrative categories of chargeable patients and chargeable services that resulted from these new arrangements are summarised in Figure 2. In broad terms, charging under the 2015 regulations applied to hospital services and some public health services, with exempt groups including those who are ordinary resident, EU citizens and those who fulfil the official criteria for recognised asylum seeking or refugee status, and exempt services including primary services (e.g. GP services) and the treatment of certain diseases including measles and pandemic flu. Multiple charging rules introduced for different non-exempt groups resulting a complex list of charging categories by immigration status (visa holders, EEA visitors, non-EEA overseas visitors, temporary migrants, former residents, and undocumented and irregular migrants). In addition, plans for a further phased extension of healthcare charging – including charging of those not 'ordinarily resident' to access community healthcare services – were set out prior to the May 2015 General Election.

Serious concerns were expressed that the new measures would not only constitute a legal barrier to access to healthcare for the chargeable categories but also that they would have a substantial broader adverse impact on healthcare that should be accessed for free for some migrant groups. Some medical experts argued that the new charging regime constituted a substantial public health risk and could render communicable diseases more prevalent in the community, as well as adversely affecting maternity care and increasing unmet need for psychiatric treatment. The British Medical Association argued that the cost of the new bureaucracy required to enforce the new system would be greater than the savings achieved (Bowsher et al., 2015). An equality impact analysis published

under the Coalition recognised that the potential for immigration sanctions in the context of unpaid NHS debt might amount to indirect discrimination against those with protected characteristics such as disability, by pregnancy/maternity status and income. However, it was argued the measures adopted were proportionate given the 'legitimate aim' of cost recovery, deterrence and the affordability of the NHS for the tax payer, and were therefore justified under equality law (Department of Health, n.d.b). Further equality analysis undertaken in 2015 repeated these broad conclusions (Department of Health, 2015a).

Figure 2 Charging arrangements under the National Health Service (Charges to Overseas Visitors) Regulations 2015

- **Charging requirements.** NHS bodies including NHS foundation trusts, NHS trusts and local authorities exercising public health functions would be required to make charges for services for those 'not ordinarily resident' except where there is an exemption. Following the Immigration Act (2014), the test of 'ordinary residency' was based on the more restrictive test 'leave to remain'. Individuals would be required to show documentation to establish immigration status. Provision was made for debt recovery.
- **Exemptions – services.** Legal exemptions from charges included accident and emergency services; primary services (including GP services); family planning and diagnostics / treatment of communicable and sexually transmitted diseases; the treatment of specific diseases including cholera, measles and pandemic influenza; and services provided for the treatment of a condition caused by torture, female genital mutilation, domestic violence or sexual violence.
- **Exemptions – groups.** Certain migrant groups were made exempt from charging. This included:
 - Those with EU rights.
 - EEA overseas visitors as a result of reciprocal healthcare cross-border arrangements and the European Health Card.
 - Non-EEA overseas visitors with the immigration status of indefinite leave to remain.
 - Temporary migrants and students subject to immigration controls but who have paid the Immigration Health Charge when applying to come to the UK.
 - Those who had paid the Immigration Health Surcharge.
 - Some vulnerable groups: refugees, asylum seekers, supported individuals and looked after children, and victims of human trafficking.
- **Chargeable groups.** Charges were introduced for non-exempt groups (other EEA and non-EEA overseas visitors, temporary migrants, former residents and short term migrants) as well as 'illegal migrants' (including failed asylum seekers liable to removal, illegal migrants and people who have overstayed their visas).
- **Amount of charges.** Charging would be in accordance with the national tariff and rules, with the price charged multiplied by 150 per cent for non-EEA residents.

Source: National Health Service (2015)

2.1.5 The NHS Five Year Forward View plan and the Barker Commission

The NHS Five Year Forward View Plan

Following on from the establishment of NHS England as part of the health reform programme, the NHS Five Year Forward View was published in 2014. This set out NHS England's vision to create a sustainable NHS in the upcoming period to 2020 and in turn provided the fundamental framework for policy development for most of the five-year period under examination (with a new plan published in 2019 in the run up to the COVID-19 pandemic). As noted in Figure 1, under the new arrangements for healthcare brought about by the NHS reforms, NHS England is in terms of the governance an arms-length and operationally autonomous body, with the Secretary of State for Health commissioning outcomes from NHS England, rather than having direct responsibilities for provision. However, to ensure democratic responsibility, the reforms put into place a system of annual mandates for NHS England specified by the Secretary of State for Health which set the objectives that NHS England is required to achieve, and the NHS Year Forward View plan was a critical element of the mandating process during the five-year period under examination.

Specifically, the NHS Five Year Forward View plan included three high level objectives which provided strategic direction for healthcare policy development after the 2015 General Election. These were:

- Delivery of integrated health and care services across England by 2020, by developing and implementing new integrated care models and strengthening of out-of-hospital care (including the delivery of integrated out-of-hospital community, primary care and mental health services);
- 'Control of the demand side', through a major shift towards a more activist prevention and public health agenda, with intensified efforts to address obesity, smoking and alcohol consumption and health inequalities;
- and parity of esteem for mental health.

The delivery of these high level strategic objectives was presented in the of the NHS Five Year Forward View plan as being essential first and foremost for addressing the challenge of establishing a high-quality healthcare system that meets the rising and more complex health needs that were already evident in 2014 and that were forecast to further intensify in the 2020s. The strategy was intended to provide a framework for service transformation that would meet the challenges of delivering health and

wellbeing in the context of rising needs, including rising and more complex needs associated with population ageing and longer survival with chronic and multiple conditions such as Alzheimer's disease and dementia, and rising needs associated with mental ill-health, obesity, diabetes and ongoing technological and medical advances. The plan was intended to address existing service fragmentation and 'siloed' and 'unresponsive' delivery models by overcoming the traditional divides between primary care, community care and hospitals, physical and mental health, and health and social care, with an emphasis on improvements in out-of-hospital provision.

Internationally, the goal of transforming existing health and care systems in order to deliver services which are co-ordinated and integrated around individual needs is one of ten global priorities that WHO aims to deliver by 2030. WHO note that most current health systems are designed to treat individual acute health conditions rather than to address complex and chronic health needs and disabilities including those associated with an ageing population; and that health and social care systems often operate independently leading to poorer outcomes, inefficient usage of services and cost shifting. Rather than focussing on the treatment of single diseases, high quality integrated and person-centred health and care systems that are co-ordinated around and responsive to individual needs are required to support older people and those with multiple health conditions (World Health Organization, n.d.b, n.d.a, 2015a, 2016; Vizard & Burchardt, forthcoming).

As well as being presented as necessary in terms of the delivery of high quality care, the three central tenets of NHS Five Year Forward View plan were presented as potentially resulting in a substantial stream of efficiency savings in the period up to 2020. The potential for savings included potential savings from the prevention of hospital admissions and earlier hospital discharges through integrated health and care (on which, c.f. Burchardt (2020b)), as well as the delivery of a range of diagnostics and treatment services throughout primary and community care. In addition, the Five Year Forward View suggested that substantial efficiency savings could be delivered through 'control of the demand side', which was in turn to be achieved through a major drive on preventative health. Further potential for further additional potential efficiency savings related to technological innovations such as digital records. However, further reliance on public sector wage freezes to achieve substantial efficiency savings in the upcoming period was characterised as non-sustainable (NHS, 2014; c.f. National Audit Office, 2014a).

This emphasis on efficiency savings as part of the Five Year Forward View was underpinned by modelling which suggested that a substantial

mismatch between public spending on health and patient needs would emerge by the second decade of the 21st century, resulting in a funding gap of £30 billion by 2020/21 if real funding remained flat over the period 2015/16-2020/21. The modelling further suggested that if real funding remained flat but the NHS were to deliver its historical annual efficiency increases of 0.8% per annum, the funding gap could be reduced to £21 billion; and if additional annual efficiency gains of 1.5% were to result from the new measures discussed above, the funding gap could be halved to £16 billion. In a third scenario, there would be additional operational and infrastructural investment resulting in extensive service transformation and the delivery of additional preventative measures and new technology. This scenario was modelled as resulting in demand and efficiency gains of 2-3% each year. Combined with funding increases close to 'flat real per person', this scenario was modelling as resulting in the elimination of the entire £30 billion funding gap by 2020/21 (NHS, 2014, 2016) (c.f. section 2.1 and section 5).

Critically, as well as delivering high quality care and efficiency savings, the NHS Five Year Forward View plan was intended to create the conditions for a sustainable NHS free at the point of delivery in the future. The plan identified that in the absence of the delivery of the three strategic objectives set out above a fundamental mismatch between healthcare need and demand would arise and that this would threaten the future sustainability of the NHS. For this reason, investment in preventative measures - alongside supply side measures and service transformation including the delivery of integrated care - would be a necessary condition for sustaining a comprehensive NHS, free at the point of delivery and funded by tax in the future. However, with measures of this type in place, there was nothing that suggested that "continuing with a comprehensive tax-funded NHS is intrinsically undoable" (NHS, 2014: 37).

The Barker Commission

Also in 2014, the final report of the Commission on the Future of Health and Care in England (the Barker Commission) was published. The Commission was set up to consider options for future proofing health and care funding in the face of the changing demographics, rising health needs and demands and changed circumstances of the 21st century. While recognising the advantages of a hypothecated tax model, the Commission concluded that this option was probably politically infeasible and called for a shift towards a single health and social care ring-fenced funding model funded through increased general taxation (including new forms of asset-based taxation) coupled with increased revenue raising such as patient charging and restrictions on free prescriptions (Barker 2014).

2.2 The resources squeeze

The extent of the resources squeeze under the Coalition was documented in our previous paper (Vizard & Obolenskaya, 2015). While health had been 'relatively protected' from austerity driven cuts during the Coalition years compared to other areas of public expenditure such as social care, local government expenditure and the welfare budget, each of which was very substantially cut, rates of growth in public expenditure on health were nevertheless extremely low by historic standards and our previous paper concluded that the health budget was not protected relative to demand and need. The incoming Cameron Government also inherited an NHS which was showing increased signs of pressure, with increasing workforce constraints and adverse movements across a number of indicators of access to healthcare and quality, including patient access to GPs and waiting times for accident and emergency services and cancer care. Some aspects of patient experience were under strain and public satisfaction with the NHS was considerably lower than in 2010.

Prior to the General Election in May 2015, the outlook for the upcoming Parliament in terms of continued resource constraints and prospects for the further mounting up of pressures on the NHS remained extremely bleak, with projected health expenditure inadequate to address the major health challenges of the day and less than the amounts estimated to keep pace with growth in need and demand. Before the Election, a modelling exercise by NHS England had highlighted that a substantial £30 billion funding gap would emerge by 2020/21 without substantial increases in the resources allocated to the NHS and / or efficiency gains. This analysis provided the backdrop for the health resourcing commitments of the main political parties during the 2015 General Election campaign. The plan for addressing the funding gap set out in the Conservative Party manifesto involved increasing resource allocation by £8 billion a year in real terms by 2020/21. This (limited) commitment suggested that increases in public expenditure on health would remain low in historic terms and would fail to keep pace with growth in need and demand in the upcoming period. The strategy for eliminating the funding gap highlighted in the NHS England modelling involved combining this commitment of an additional £8 billion in real resource funding with the optimistic working assumption that it would be possible to deliver £22 billion efficiency savings by 2020/21 (c.f. 2.1.4).

The Coalition Government had responded to the substantial increase in the deficit and debt that had accumulated during the financial crisis of 2007/8 and the subsequent recession and economic downturn prior to the 2010 General Election by adopting an overarching framework for public finances that focussed on public expenditure cuts rather than increased taxation as

a means of achieving fiscal adjustment. We have argued in previous outputs that the Coalition's approach to public expenditure can be characterised in terms of 'selective austerity' - with 'relative protection' in certain priority social policy areas coupled with real public expenditure cuts in de-prioritised areas (Lupton et al., 2015). Health fared well compared to other budgetary areas in terms of its relative prioritisation and was 'relatively protected' from austerity driven cuts in other areas of public expenditure such as social care, local government expenditure and the welfare budget, each of which was very substantially cut.

Nevertheless, the growth of public expenditure on health under the Coalition was exceptionally low both compared to the rates achieved under the previous Labour administration and by longer term historical standards. The average real growth rate of public expenditure on health between 2009/10 and 2014/15 was 1.1% per annum - very substantially lower than the average of 6 per cent under Labour between 1997/98 and 2009/10. Moreover, expenditure increases under the Coalition over this period failed to keep pace with the increases in the population aged 65 and above, and the population aged 85 and above, as well as the extremely modest rates of growth in real GDP and real disposable income over this period. Real and volume expenditure per head both *fell* between 2009/10 and 2012/13, with only a 1 percentage point average annual increase in volume expenditure recorded between 2009/10 and 2014/15. Our previous paper concluded that while the health budget was protected in *real* terms under the Coalition, it had *not* been protected relative to need and demand (Vizard & Obolenskaya, 2015).

2.3 The break with the rapid and sustained supply side expansion of the 2010s

Our previous paper on health developments under the three Labour administrations that were in power between 1997 and 2010 (Vizard & Obolenskaya, 2013) identified that there was a substantial and sustained supply side expansion in healthcare during the first decade of the 21st century. Vizard and Obolenskaya (2015) identified that in contrast, under the Coalition, there was a break in this trend, with growth in health inputs (which includes the healthcare workforce) slowing down radically and that the growth of healthcare outcomes (volume of health-related activities and procedures) also slowing. ONS estimates show that in England healthcare inputs growth averaged 1.7% per year under the Coalition (between 2010 and 2014) compared to 4.8% under Labour (between 1997 and 2009). Volume growth in public service healthcare outputs slowed but was less impacted, with increases averaging 3.2% per annum under the Coalition compared with 4.9% during the sustained period of supply side expansion under Labour.

Against this background, in May 2015, the incoming majority Conservative Government inherited an NHS which was already showing increased signs of pressure, with increasing workforce constraints and adverse movements across a number of indicators of access to healthcare and quality, including patient access to GPs and waiting times for accident and emergency services and cancer care. There were falls in the HCHS workforce under the Coalition, with a fall of almost 1% in the total HCHS workforce between May 2010 to May 2015, and only a 2.9% increase in the number of professionally qualified clinical staff. The total number of FTE GP practitioners increased by 1.6% between 2009 to 2014, and the health secretary Jeremy Hunt had pledged to train 5000 more GPs by 2020, although this commitment was not included in the 2015 Conservative Party Manifesto. Some aspects of patient experience were under strain and public satisfaction with the NHS was considerably lower than in 2010.

2.4 Health outcomes and inequalities

Our previous paper found that while smoking prevalence fell during the Coalition years, rates of adult obesity continued to rise, while the proportion of life spent in poor health and disability increased. The incidence of suicide and poor mental health increased during the period coinciding with the economic crisis and downturn and rates of poor mental health at a historic high in 2015 when the Cameron Government came into power. The UK's ranking on OECD "international league tables" also remained disappointing for a number of health outcomes at the end of the Coalition's period in power - including female life expectancy and infant mortality and some five-year survival rates and cancers. We further identified that there had been a notable lack of progress in reducing health inequalities over the period 2010-2015, with systematic social gradients persisting across a range of health outcomes, and substantial gaps between the top and bottom deciles in life expectancy, healthy life expectancy and mortality from the major killers (Vizard & Obolenskaya, 2015).

Our earlier paper covering developments in health under Labour between 1997 and 2010 (Vizard and Obolenskaya, 2013) concluded that there had also been a disappointing lack of progress in reducing health inequalities during previous Labour administrations. While a notable reduction in inequality in the infant mortality rate during the Labour years represented striking progress, we highlighted a failure to meet a range of official health inequalities targets, with *increasing* relative gaps in life expectancy and cancer / circulatory mortality between areas with the highest income and health deprivation and the English average (Vizard and Obolenskaya 2013).

In retrospect, our previous assessment may have been too harsh and itself influenced by the specification of ambitious official health inequalities

targets in terms of reducing *relative* as well as *absolute* gaps under Labour. Our previous analysis also showed, for example, that while Labour failed to achieve those official health inequalities targets that were specified in terms of *relative* gaps, other targets specified in terms of reductions in *absolute* gaps were on course to be met with one year of data outstanding. This was the case, for example, in relation to the narrowing of absolute gaps in cancer and circulatory mortality (Vizard & Obolenskaya, 2013).

Other studies have concluded that there was substantial progress under Labour on health inequalities. For example, Barr et al. (2017) examine the impact of the English cross-government health inequalities strategy implemented between 1997 and 2010. This study focusses on absolute gaps and concludes that the strategy was associated with a decline in geographical health inequalities in life expectancy. The experience of this period is contrasted with the post-austerity period, with no public health strategy and limited progress on health inequalities. Robinson et al. (2019) focus on reductions in inequalities in infant mortality, showing that before the strategy was implemented (1983–1998), absolute inequalities in the IMR increased between the most deprived local authorities and the rest of England at a rate of 0.034 annually, while they decreased at a rate of –0.116 during the strategy (1999–2010), before increasing again at a rate of 0.042 annually after the strategy period ended (2011–2017). Kings Fund analysis also shows the ‘Marmot curve’ flattened between 1999–2003 and 2006–10, implying that the relationship between life expectancy and income deprivation weakened between these periods (Buck & Maguire, 2015).

Our analysis in Vizard and Obolenskaya (2015) identified that prior to the General Election in May 2015, there were already signs that this previous progress in relation to health outcomes and inequalities had begun to slip. Improvements in life expectancy had slowed down and life expectancy inequalities had begun to widen. Additionally, there was no improvement in the infant mortality rate in the UK in 2014, which was an unusual development, and there was an episode of high excess deaths during winter of 2014/15, largely impacting on older people, especially older women living in care homes.

3. Goals

In this section, we provide an overview of the high-level health-related goals of the three Conservative majority governments that were in power over the five-year period between May 2015 and early 2020, when the COVID-19 pandemic struck. We begin by examining the high-level political commitments set out in the three Conservative Party manifestos prior to the 2015, 2017 and 2019 General Elections (section 3.1). Next, we examine high level policy and resource commitments set out in manifestos and in key political and strategic speeches (sections 3.2 and 3.3). Finally, we examine the policy aims specified in the Government's annual mandates to the NHS. These annual mandates are a key political and democratic accountability mechanism established in the reformed health arrangements discussed in section 2.1.1 and provide a record of the high-level objectives that NHS England was required to achieve during the five-year period under examination (section 3.5).

Key findings (goals)

- Unlike the period under the Coalition between May 2010 and May 2015, the period between May 2015 and May 2020 was *not* a period of radical health reform and the 2015, 2017 and 2019 Conservative Manifestos were characterised by a notable *absence* of proposals for further systemic reorganisation.
- All three of the majority Conservative Governments that were in power between May 2015 and early 2020 - like their predecessor the Conservative-Liberal Democrat Coalition led by Cameron – made high level commitments to a tax funded NHS, free at the point of delivery, based on need not ability to pay.
- There were high-level political commitments to increasing the workforce and training; to integrated care and pooled budgets; to implementing the recommendations of the Frances Review; to a cancer strategy, a national diabetes plan and measures to address dementia and obesity; to parity of esteem for mental health; and to a programme of infrastructural improvements.
- The Government's annual mandates to the NHS put central emphasis on implementation and delivery of the NHS Five Year Forward View plan. As discussed in section 2.2.1, this had set out three high level strategic objectives: delivery of integrated health and care services across England by 2020, by developing and implementing new integrated care models and strengthening of out-of-hospital care; and 'control of the demand side', through a major shift towards a more activist prevention and public health agenda, with intensified efforts to address obesity, smoking and alcohol consumption and health inequalities and parity of esteem for mental health.

- Theresa May's 'burning injustice' agenda identified health and mortality inequalities and increased social recognition of mental ill-health. Theresa May's speech in July 2018, the 70th anniversary of the NHS, also signalled an acceleration of resource allocation going forward to 2023/24.
- However, little or no progress was made in addressing or resolving the fundamental challenge of how to generate long-term sustainable funding for health and care to meet the challenges of population ageing and rising need and demand in the 2020s, of the type envisaged in the Barker Commission in 2014.

3.1 High level commitments to the NHS

All three of the majority Conservative Governments that were in power between May 2015 and early 2020 - like their predecessor the Conservative-Liberal Democrat Coalition led by Cameron - made high level commitments to a tax funded NHS, free at the point of delivery, based on need not ability to pay. This key and overarching high level commitment reflected the continued importance of the NHS as an electoral issue during this period. Alternative policy options that might have been pursued included, for example, a shift to a private insurance financed healthcare system; a shift to a social insurance-based system; the mainstreaming of charging (for example, by charging for so-called 'hotel costs' or GP appointments or the introduction of further restrictions on free prescriptions or particular procedures or treatments); and / or the means testing of access to healthcare.

Details of the 2015 Conservative Party Manifesto are summarised in Figure 3. Trust in Government in relation to the NHS was a key issue during the 2015 General Election and the Conservative Party manifesto included an explicit high-level commitment to the NHS, tax funded and free at the point of delivery, referring to the NHS as a "profound expression of our values as a nation". The 2017 Conservative Party Manifesto was launched against a backdrop of increasing pressures on the NHS, with the Labour Party campaign announcing that there were "24 hours to save the NHS" on the eve of the General Election. The Conservative Party aimed to build up trust on this issue and the manifesto referred to the NHS itself as the "essence of solidarity... and our commitment to one another" (Conservative Party, 2017 and **Figure 4**). Events to celebrate the launch of the NHS were held across the country on July 5th 2018. A key statement by the then Prime Minister Theresa May to mark this event stated that the vision at the heart

of the NHS – of a tax-funded service that is available to all, free at the point of use, with care based on clinical need and not the ability to pay – retains near-universal acceptance. She credited the creation of the NHS to William Beveridge, Nye Bevan and the health minister in Churchill’s wartime government (Henry Willink) (Siddique & Campbell, 2018). During the December 2019 General Election, trust in Government in relation to the NHS was once again at the top of the political agenda. The Conservative Party 2019 Manifesto repeated the earlier statements made in 2015 and 2017 with a high level commitment to an NHS free at the point of use based on need not ability to pay (Conservatives, 2019 and **Figure 5**).

3.2 High level policy commitments

Unlike the period under the Coalition between May 2010 and May 2015, the period between May 2015 and May 2020 was *not* a period of radical health reform and the 2015, 2017 and 2019 Conservative Manifestos were characterised by a notable *absence* of proposals for further systemic reorganisation. This in part reflected a lack of appetite for further change in the wake of the far-reaching and controversial programme of health reform undertaken by the Coalition as well as the fact that Cameron himself had been Prime Minister when the reform programme was implemented. In addition, the Coalition’s reform programme emphasised the independent status of the NHS and the importance of a departure from previous ‘top down’ political management of the NHS and targets, and the period was characterised by high level political statements that articulated the importance of backing NHS England’s ‘own plan’. Moreover, political attention was overwhelmingly focussed on Brexit until the COVID-19 pandemic struck in early 2020, with little bandwidth for the domestic social policy agenda including health. These factors resulted in an essential continuity in health policy between May 2010-May 2015 and May 2015-early 2020, with a focus policy roll out and implementation after 2015, rather than new policy directions or further radical change. The focus was on policy roll out and implementation after 2015, rather than new policy directions, although the 2017 Manifesto highlighted the possibility of a roll back of the competition and procurement regime.

On workforce, staffing and training, in 2015, there was a commitment to continue to “ensure we have enough doctors, nurses and other staff to meet patients’ needs” and to ensure that hospitals are properly staffed and that quality of hospital care is maintained seven days a week. An additional pledge to train 5000 extra GPs by 2020 was announced during the 2015 General Election campaign and was confirmed by the then Secretary of State Jeremy Hunt following the election, but was not included in the Manifesto (Ewbank, 2017). The quality and safety agenda was also prominent within the 2015 Conservative Party Manifesto. Commitments

included the implementation of the Francis Review recommendations, the implementation of a ratings system by the Care Quality Commission and improvements to accountability and transparency in relation to patient safety. In addition, the 2015 Manifesto included a pledge to continue to eliminate mixed sex wards and to integrate the health and social care systems including through piloting new approaches such as pooled health and social care funding in Greater Manchester and the Better Care Fund.

The 2017 Conservative Party Manifesto announced a new GP contract and changes to hospital consultant contract, and pledged to increase the number of UK medical students in training. There was no mention of the pledge to train 5000 extra GPs by 2020 announced by the then Secretary of State Jeremy Hunt during the 2015 General Election campaign (on which, see section 3.1 above), although the media reported that this commitment would be retained (Roberts, 2017).

As we discuss in section 6, by the time of the 2019 General Election, NHS waiting lists and workforce shortages as well as post-Brexit recruitment issues in both health and social care had moved to the top of the health policy agenda. In responding to these pressures, the 2019 Conservative Party Manifesto pledged 50,000 nurses, 6000 more GPs and 6000 more primary care professionals such as physiotherapists and pharmacists. Clarifications reported in the media suggested that the pledge of 50,000 nurses related to the number of extra nurses by 2024/25 and included a projected 18,500 nurses being retained within the NHS rather than quitting. The Manifesto further pledged to “solve” the GP pension issue and to restore the nurses bursary (which was abolished by the Conservative Government in 2017). In addition, the 2019 Manifesto pledged to restore maintenance grants of £5000-£8000 per annum to help recruitment; referred to plans for ‘20 hospital upgrades and new hospitals’ and having ‘begun work on building 40 new hospitals’; and committed to investment in new equipment such as cancer diagnostic machines.

In 2017, there was no commitment to recruit EU doctors and nurses post-Brexit. However, there was a commitment to safeguard the status of 140,000 EU NHS staff. In 2019, amidst concerns that existing workforce shortages in health and social care would be exacerbated by post-Brexit immigration arrangements, a joint report by the health think-tanks argued that overseas recruitment would be necessary to address staffing shortfalls in years to come (The King’s Fund, 2019b). The 2019 Conservative Party Manifesto announced the introduction of a new post-Brexit NHS VISA to support international recruitment, whereby qualified health professionals with a job offer from the NHS will be offered “fast-track entry, reduced visa fees and dedicated support to come to the UK”. A consultation response by the NHS Employers Federation highlighted knock-on effects of the failure

to include social care workers within this scheme (Pym, 2019; Lintern, 2019; Conservatives, 2019).

More broadly, there was no mention of the immigration health surcharge in the 2015 Manifesto, but increases in the level of the surcharge were included 2017 and 2019 manifestos. In contrast, the 2019 Manifesto pledged to end “unfair” car parking charges – an issue which had been attracting considerable media attention.

On safety and quality, commitments were made in 2017 to reduce variations in outcomes and quality, and to extend CQC regulatory functions to cover health-related services commissioned by local authorities. There were commitments in 2015 and 2017 to the delivery of the NHS England Five Year Forward View plan. On service integration, the 2017 Manifesto repeated earlier commitments to support the NHS Forward View plan and pledged to hold NHS leaders to account for its implementation. Support was expressed for Sustainability and Transformation plans, which NHS organisations and local councils were required to publish in 2016 (c.f. 0.1). The 2019 Manifesto included a commitment to improve joined up and integrated care for those with multiple conditions.

As noted above, in 2017, there was a notable commitment to review the internal market and to make non-legislative and legislative changes where there were barriers to integrated care. The background here was growing concerns expressed by NHS England that the reforms introduced by the 2012 Health and Social Care Act – especially measures that aimed to promote competition and bodies such as Monitor with responsibilities to prevent anti-competitive behaviour constituted a barrier to health and care integration. Further details of these concerns and subsequent proposals for eliminating legislative and non-legislative barriers to integration identified by NHS England and the Health Select Committee are discussed below in section 4. The manifesto commitment on this issue signalled an important move away from the 2012 Health and Social Care regime, particularly as it related to competition:

“If the current legislative landscape is either slowing implementation or preventing clear national or local accountability, we will consult and make the necessary legislative changes. This includes the NHS’s own internal market, which can fail to act in the interests of patients and creates costly bureaucracy. So we will review the operation of the internal market and, in time for the start of the 2018 financial year, we will make non-legislative changes to remove barriers to the integration of care” (Conservative Party, 2017: 67).

In relation to healthcare outcomes and inequalities, in 2015, there were commitments to deliver the cancer strategy recommended by NHS England cancer taskforce; to introduce a national diabetes programme; to deliver a dementia strategy and to provide support for individuals who experience

addictions. Parity of esteem for mental and physical health has been an important issue given prominence within all three Conservative Party Manifestos published during this period. The 2015 Manifesto committed the Cameron Government to “continue to take mental health as seriously as to physical health”, including by increasing funding for mental health care; enforcing new access and waiting standards; and improving access to therapists. In addition, there were commitments to take action to address childhood obesity, to support clear food information and to introduce plain-packaging for cigarettes². No specific resource commitments were made in relation to public health.

Theresa May’s ‘burning injustices’ speech delivered on the steps of Downing Street on 13th July 2016 set out an agenda for social change that highlighted the importance of overcoming social divisions and creating “a Britain in which burning injustices are tackled and overcome”. The speech identified two key health related injustices: “the life expectancy gap of nine years for those born poor” and “insufficient support for those who experience mental health problems”. Addressing these and other “burning injustices” - and delivering a Britain that works for all not a few – were identified as the central mission of the May Government moving forward in the wake of the Brexit vote (May, 2016).

Building on May’s ‘burning injustices’ agenda, there was a particular emphasis on mental health and health inequalities in the 2017 Conservative Party Manifesto. The 2017 Conservative Party Manifesto is renowned for its length and detail, and a considerable proportion of its content related to mental health. The Manifesto noted: “it was Conservatives in government that gave parity of esteem to the treatment of mental health in the National Health Service. We have backed this with a significant increase in funding: since 2010 we have increased spending on mental health each year to a record £11.4 billion in 2016/17, with a further investment of £1 billion by 20/21, so that we can deliver the mental health services people deserve”. (Conservative Party, 2017: 56-57). Additional commitments referred to “rectifying injustices experienced by those with mental health problems”, including improvements to mental health services, legislative changes that addressed human rights concerns around detention, discharge and sanctioning, and further measures that aimed to address workforce protection and broader discrimination and stigma (Figure 4).

On the prevention and public health, the 2017 Manifesto pledged to take action to reduce obesity; to support the national diabetes prevention

² The House of Commons voted in favour of plain cigarette packaging in March 2015.

programme; and to expand cancer screening. Proposals in the 2017 Manifesto to end school lunches to all children free of charge regardless of family income for the first three years of primary school - and to offer a free school breakfast to every child in every year of primary school - are discussed in Lupton and Obolenskaya (2020) and plans on social care (especially the highly controversial so-called 'dementia tax', whereby care costs would have been capped at £72,000 but the value of an elderly person's property would be included in the means test for in home care) are discussed in Burchardt et al. (2020b).

In 2019, there were commitments in 2019 to promoting uptake of vaccines and to tackle obesity and diabetes. More broadly, the 2019 Manifesto included a general commitment to improve joined up and integrated care for those with multiple conditions, and to treat mental health with same urgency as physical health, with few further details. However, in the 2019 manifesto, there was little or no recognition of the need for a comprehensive and focussed drive to address the deterioration in mortality trends and health inequalities that had occurred in the second decade of the 21st century.

3.3 High level objectives specified in annual mandates to NHS England

Following the Coalition's reforms, the Governments annual mandates to the NHS provided the key accountability mechanism for the newly independent NHS England. As highlighted in Figure 1 and discussed in sections 2.1, under the new arrangements for healthcare brought about by the NHS reforms, NHS England is in terms of the governance an arms-length and operationally autonomous body, with the Secretary of State for Health commissioning outcomes from NHS England, rather than having direct responsibilities for provision. However, to ensure democratic responsibility, the reforms put into place a system of annual mandates for NHS England specified by the Secretary of State for Health which set the objectives that NHS England is required to achieve.

During the five-year period under examination, the NHS Year Forward View plan summarised in section 2.1.5 was a critical element of the Government's mandating process to NHS England. As noted in section 2.1.5, following on from the establishment of NHS England as part of the health reform programme, the NHS Five Year Forward View was published in 2014 and set out NHS England's vision to create a sustainable NHS in the upcoming period to 2020. The plan set out three high level strategic objectives: delivery of integrated health and care services across England by 2020, by developing and implementing new integrated care models and strengthening of out-of-hospital care; and 'control of the demand side',

through a major shift towards a more activist prevention and public health agenda, with intensified efforts to address obesity, smoking and alcohol consumption and health inequalities and parity of esteem for mental health. As noted in section 2.1.5, these were viewed as necessary for the delivery of a high-quality health system that would address the challenge of rising and complex needs in the 2020s, as well as being necessary for the future sustainability of the NHS as a tax funded healthcare system, free at the point of delivery.

The Government's annual mandates to NHS England during the period under examination put central emphasis on the delivery of the Five Year Forward view plan. In 2015-16, the Government's mandate to the NHS underlined the importance of delivering the 2014/15 Five Year Forward View and requested progress in relation to mental health and integrated care. These objectives as well as the importance of 24/7 NHS care and out-of-hospital services were repeated annually in subsequent mandates. The Government's annual mandates to the NHS also provided the key accountability mechanism for NHS England to deliver on improving health outcomes and inequalities, with demonstrable progress against the five domains of the NHS Outcomes Framework being pivotal to each mandate and annual progress assessments being undertaken by the Department for Health and Social Care. The Government's 2016/17 mandate included a further statement of the importance of the Five Year Forward View plan together with multi-year objectives to 2020 underpinned by specific annual deliverables and specified goals, including measurable progress towards reductions in stillbirths, neonatal and maternal deaths. Additionally, the mandate included an overarching high level commitment to access to health care based on need and not the ability to pay, with services that are comprehensive and available to all (Department of Health, 2015b, 2018a; Department of Health and Social Care, 2019b).

Figure 3 Conservative Party 2015 Manifesto Commitments

Commitment to the NHS, free at the point of use

- Founded on the principle that no one should ever have to worry about their ability to pay for their healthcare
- "NHS is a profound expression of our values as a nation"

Public expenditure

- Increase NHS spending by a minimum of £8bn in real terms over the next five years (to 2020)

Workforce and staffing

- We will continue to ensure we have enough doctors, nurses and other staff to meet patients' need
- Hospitals to be properly staffed to maintain quality of care seven days a week

Access

- Provide seven-day-a-week access to hospitals and GP services by 2020, with quality of care the same seven days a week
- Restore right to a specific named GP
- Same-day GP's appointments for over 75s
- Online appointments and repeat prescriptions
- Access to electronic health records (including opt out)

Healthcare reform, quality and safety

- Implement and fund the Five NHS Forward View plan
- Integrate health and social care (piloting GM £6b, Better Care Fund)
- CQC Inspection rating system and accountability and transparency in relation to safety records
- We will continue to eliminate mixed sex wards

Parity of esteem for mental health

- Will continue to take mental health as seriously as to physical health;
- We are increasing funding for mental health care
- We will enforce new access and waiting standards
- Will improve access to therapists

Prevention agenda

- We will take action to address childhood obesity
- We will continue to support clear food information
- We are introducing plain-packaging for cigarettes

Health outcomes and inequalities

- Deliver the cancer strategy recommended by NHS England cancer taskforce
- National diabetes programme
- Deliver dementia strategy
- Support for those with addictions

Source: (Conservatives, 2015)

Figure 4 Conservative Party 2017 Manifesto Commitments

Commitment to NHS, free at the point of use.

"Our National Health Service is the essence of solidarity in our United Kingdom – our commitment to each other, between young and old, those who have and those who do not, and the healthy and the sick. The Conservative Party believes in the founding principles of the NHS:

- First, that the service should meet the needs of everyone, no matter who they are or where they live.
- Second, that care should be based on clinical need, not the ability to pay.
- Third, that care should be free at the point of use.

As the NHS enters its eighth decade, the next Conservative government will hold fast to these principles by providing the NHS with the resources it needs and holding it accountable for delivering exceptional care to patients wherever and whenever they need it".

Public expenditure

- Increase NHS spending by £8bn extra a year in real terms by 2022/23

Staffing

- New GP contract and changes to hospital consultant contract
- Safeguard the status of 140,000 EU NHS staff (no commitment to recruit EU doctors and nurses post-Brexit)
- Increase number of UK medical students in training

Buildings and IT

- The government will continue its programme of closing antiquated NHS surgeries and hospitals. (claimed: ambitious modernisation programme)
- Digital NHS / apps – 7 day a week health service

Immigration and health surcharge

- Increase immigration health surcharge to £600 for migrant workers and £450 for international students

Integrated health and care

- Support and accountability for the NHS Forward View plan
- Support for Sustainability and Transformation plans
- Hold NHS leaders to account for delivery
- Review internal market and make non-legislative and legislative changes where there are barriers to integrated care
- This includes the internal market "which can fail to act in the interests of patients and creates costly bureaucracy"

Access

- Improved access to GPs / sustainable longterm solution / new GP contract
- Retain the 95% four hour A&E target and 18 week elective care standard
- New dentistry contract
- Seven day a week healthcare service (GPs, hospital services including diagnostic tests)
- Digital appointments and prescriptions and control over personal data

Quality and safety

- Reduce variations in outcomes and quality
- Extend CQC to cover health-related services commissioned by local authorities
- New standards
- Improve standards for those with autism and learning difficulties

Healthcare, health outcomes, inequalities and prevention

- Require NHS to continue to reduce infant and maternal deaths, which are too high
- Take action to reduce obesity
- Support national diabetes prevention programme
- Cancer definitive diagnosis within 29 days by 2020 and expanded screening and radiotherapy equipment upgrade
- Improve end of life care

Parity of esteem for mental health

- Rectify injustices experienced by those with mental health problems
- Better treatment services
- Introduce the “first new Mental Health Bill for thirty years to put parity of esteem at the heart of treatment and end the stigma of mental illness once and for all”
- Recruit up to 10,000 more mental health professionals
- Implement the Transforming Care Programme
- Reduce stigma and discrimination
- Improve coordination with police, drug, alcohol and rehabilitation services
- Transformation of workplace perceptions and support

Source: Conservative Party (2017)

Figure 5 Conservative Party 2019 Manifesto Commitments

Commitment to NHS free at the point of use and there for you on the basis of need, not ability to pay

- We “fundamentally believe it’s there for everyone in the country to rely on free at the point of use”
- Conservative Party has been “steward and guardian” of the NHS for 44 out of 71 years

“Giving the NHS its biggest cash boost in history”

- Annual 3.4 % real terms increase to 2023/24 (£20.5b real cash increase by 2023/24, £33.9b in cash / nominal terms)

“Making sure the NHS has the staff it needs”

- Nursing bursary – restoring maintenance grants of £5000-£8000 p.a. to help recruitment
- 6000 more GPs and 6000 more primary care professionals (on top of 7500 extra nurse associates and 20,000 primary care professionals already announced)
- Solve GP pension issue
- 50m extra GP appointments a year

“Upgrading 20 hospitals and building 40 new ones”

- Investing in new machines to boost early cancer diagnosis across 78 hospital trusts

Healthcare quality and safety

- Improve joined up and integrated care for those with multiple conditions
- Improve NHS food
- End unfair car parking charges

Health outcomes and inequalities

- Commitment to reduce health inequality
- Invest in prevention
- Extend healthy life expectancy by five years by 2035
- Improve NHS performance by improving operating waiting times, improve A&E performance and increase cancer survival rates
- Improve early diagnosis of all conditions
- Improve maternity services
- Treat mental health with same urgency as physical health
- Make discharges for those with autism or learning difficulties easier and improve legal treatment
- Continue to take action on gambling addiction
- Extend cancer drugs fund
- Extend social prescribing
- Promote uptake of vaccines
- Tackle obesity, diabetes

Brexit

- When we are negotiating trade deals, the NHS will not be on the table.
- **NHS VISA** Overseas qualified doctors, nurses and allied health professionals with a job offer from the NHS, who have been trained to a recognised standard, and who have good working English, will be offered fast-track entry, reduced visa fees and dedicated support to come to the UK with their families.

Accountability

- Enshrine in law fully funded longterm NHS plan

Increase health surcharge

Source: Conservatives (2019)

3.4 High level resource commitments

Following the May 2015 General Election, resource allocations to health remained constrained, and the resource pledges included in both the 2015 and 2017 manifestos were notably limited, with implied growth rates that continued to be substantially below the amounts deemed by experts to keep up with need and demand.

In 2015, the Conservative Party Manifesto committed the incoming Cameron Government to increase NHS spending by £8 billion a year in real terms by 2020. This funding commitment was presented as an “absolute commitment” to deliver the resources needed by the NHS. The background here was a modelling exercise published in the 2014 NHS England Five Year Forward View plan. This forecast that a substantial £30 billion funding gap between health funding and need / demand would emerge by 2020/21 without substantial increases in the real resources allocated to the NHS and or efficiency gains or a combination of the two (NHS England 2014; c.f. 2.1.55). This modelling exercise was an important backdrop to the 2015 General Election and a reference point for the health resourcing commitments of the main political parties during the 2015 General Election campaign. The Conservatives 2015 Manifesto pledge of £8 billion by 2020/21 was presented as backing the NHS’s own plan and providing the funding to implement this plan in full (see, for example, Watt, 2015). It assumed that the £30 billion funding gap could be met by an additional £8 billion a year in real terms funding coupled with the delivery of £22 billion efficiency savings by 2020/21.

The 2017 Manifesto committed Theresa May’s Government to increase spending by a minimum of £8bn extra a year in real terms for the NHS. This was a similar commitment to the 2015 Manifesto; but was interpreted as implying £8 billion extra in real terms per year by 2022-23 with 2017/18 as the baseline year (whereas the 2015 manifesto commitment had 2014/15 as the baseline). This implied a small increase on previously announced funding, enabling the Conservatives to argue that real funding per capita would not decline in the immediate years following the 2017 General Election, as had been anticipated based on previous plans (Pym, 2017). The Prime Minister Theresa May declared the ‘end of austerity’ in 2018 and amidst growing concerns about capacity constraints, increasing waiting lists and winter pressures, a new £20b financial settlement was announced at the time of the NHS 70th birthday. This was a considerable uplift and was repeated in the 2019 Conservative Party Manifesto, so that even prior to COVID-19. As a result, the plans that had been put into place indicated a faster expenditure growth in the period 2019/20-2023/24 than had occurred during most of the 2010s.

May's NHS Anniversary speech was delivered against a backdrop of Brexit turmoil and mounting resource and workforce pressures on the NHS, with record July waiting times for A&E coinciding with anniversary events. The Prime Minister used the anniversary to announce a new financial settlement for NHS which committed the Government to an extra £20.5 billion of expenditure on the NHS by 2023/24. The settlement represented a substantial expansion of the resource commitments included within the 2015 and 2017 General Election Manifesto, amounting to real terms funding increases of 3.4% per cent per annual over a five year period to 2023/24. These growth rates nevertheless remained lower than the historical average annual increase and less than is necessary to keep pace with need and demand (Siddique & Campbell, 2018). Of the £20.5 billion the Prime Minister pledged for the NHS, £2 billion was earmarked to be spent on mental health (Schraer, 2019).

May suggested that the new financial settlement would be funded by a Brexit dividend while also hinting at tax rises and stated that the financial settlement "means it [spending] will be £394 million a week higher in real terms" (*PM Speech on the NHS*, 2018). The figure stated was an implicit reference to the 'Brexit Bus' pledge – the infamous commitment on NHS funding articulated by the Vote Leave campaign, led by the future Prime Minister Boris Johnson and future Chancellor of the Duchy of Lancaster Michael Gove, which promised an extra £350 million a week for the NHS as a result of a vote leave outcome of the Brexit referendum in June 2016. The notion of a Brexit dividend was both controversial and contested and was emphatically rejected in IFS analysis (Pope, 2018; Levell & Stoye, 2018).

The 2019 manifesto commitment on resources reflected the NHS 70th birthday present announcement detailed above. The 2019 resource commitment was announced as the "biggest cash boost in history" and was reported in the media as constituting the highest annual cash or nominal uplift in history. However, as we discuss in section 5 below, when expressed in real terms, the plans for annual funding increases of 3.4 percent to 2023/24 represented a per annum growth rate that was less than the historical average and lower than the amount that experts estimate is necessary to keep pace with need and demand.

Overall, however, the high-level resource commitments set out in Conservative Party manifestos and other key statements between May 2015 and early 2020 failed to tackle the fundamental challenge of how to generate a sustainable funding stream that would increase the share of national resources devoted to health and care, in the wake of population ageing and rising need and demand. In 2014, the Barker Commission had

recommended the establishment of a new single ring-fenced funding model for health and care designed to align with patterns of need and demand in the 21st century. However, there were no proposals in the 2015, 2017 or 2019 manifestos that addressed the fundamental challenge of establishing a long-run, sustainable solution to health and care resourcing for the 2020s. Indeed, the 2019 manifesto ruled out rises in national insurance, income tax and VAT. This high-level commitment appeared to rule out general taxation and national insurance as vehicles for raising additional revenue to fund health going forward. In combination with the continued failure of successive governments to deliver a sustainable funding model for social care (c.f. Burchardt et 2021), this left the fundamental challenge of delivering a sustainable health and social care funding model for the 2020s unresolved when the pandemic struck.

4. Policies

In this section, we examine health policy developments in England under the three Conservative majority Governments that were in power between the May 2015 General Election and early 2020 when the COVID-19 pandemic struck. We begin by reviewing key healthcare policy developments during the five-year period under examination (section 4.1). We then examine key developments relating to preventative and public health (section 4.2). Next, we consider some of the health issues raised by Brexit (section 4.3). Finally, we address the health agenda on the eve of COVID-19 (section 4.4).

Key findings (policies)

- There was an essential continuity in health policy before and after the 2015 General Election, with the radical health reform programme that had been put into place under the Coalition between 2010 and 2015 continuing to be rolled out and to bed down after the General Election in May 2015.
- Health policy advances during the five-year period under examination included progress towards the delivery of integrated and person-centred care; new devolved arrangements for health; increased policy focus on mental health; and several new policy, fiscal and regulatory measures in public and preventative health relating to obesity, smoking and clean air.
- However, policy developments relating to the 'hostile environment' intensified, raising key concerns around access to healthcare and health protection gaps for some groups, and key recommendations on obesity were not followed through.
- By early 2020, the eve of the COVID-19 pandemic, there were multiple warnings that progress towards key goals set out in the NHS Five Year Forward View plan, such as progress towards integrated health and care systems and the upscaling of out-of-hospital care and prevention, had been too slow.

- Additionally, the efficacy of some key aspects of the Coalition's reform programme were being questioned on the eve of COVID-19, including some elements of the rules relating to competition and procurement, which were increasingly viewed as a barrier to integrated care; the 'bottom up' major drive on preventative and public health and health inequalities which had been foreseen in the Coalition's reform programme but which had not materialised; and arrangements for overall responsibility and accountability for improving health outcomes and reducing health inequalities, which were increasingly viewed as too weak.
- New strategic plans for the 2020s were published by NHS England and Public Health England before the pandemic struck. However, while the Government's delayed infrastructural plan was published in late September 2019, the full NHS workforce plan was not, and a major and comprehensive cross-governmental health inequalities strategy of the kind called for by many health experts

4.1 Key healthcare policy developments

As noted under goals (section 2), the period between May 2015 and May 2020 was not a period of radical health reform. This reflected in part an essential continuity in terms of policy approaches before and after the 2015 General Election, with Cameron leading both the majority Conservative Government after May 2015 and its predecessor the Conservative-Liberal Democratic Government between May 2010 and May 2015, and other key Conservative members of Coalition continuing in power as part the new Conservative majority Government. In addition, following on from the Coalition's radical reform programme, there was a sense of 'reform fatigue' and a consensus that further major systemic health reforms were off the agenda. Moreover, until the COVID-19 pandemic struck, the focus of the three Conservative Governments that were in power between May 2015 and early 2020 was overwhelmingly on the politics of Brexit. As in other areas of social policy such as education and social care, Brexit bandwidth effects limited substantive social policy developments in health during the Cameron and May administrations and absorbed the Johnson Government until the public health crisis hit in early 2020 (c.f. Stewart et al., 2019). As a result, there was an essential continuity in health policy between May 2010-May 2015 and May 2015-early 2020, with a focus on policy roll out, bedding down and implementation after 2015, rather than new policy directions or further radical change. Many elements of the new health landscape - including the expanded number of Foundation Trusts, NHS England, Clinical Commissioning Groups, Public Health England and the

new inspection ratings system - had become familiar and embedded aspects of the healthcare landscape by early 2020 when the COVID-19 pandemic struck.

4.1.1 Integrated health and care

The NHS Five Year Forward View plan highlighted the importance of integrated and person-centred care, and this was a major focus for NHS England after 2015. An initial target of delivering integrated care across England was set for 2020. Fifty sites were selected by NHS England to be 'vanguard' models of integrated care in 2015 and to take the first steps in implementing the NHS Five Year Forward View. These were different types of collaborative provider partnerships including hospitals, community and mental health services, primary care services (GPs) and social care providers. These were listed in NHS (2016) as falling into five broad categories:

- Primary and Acute Care Systems (PACS): population-based care models based on GP lists, which bring together hospitals with providers of primary, community, mental health and social care.
- Multispecialty Community Providers (MCPs): population-based care models on GP lists. These bring together primary, community, mental health and social care (but *not* hospital) services. They aim to provide specialist care outside of hospitals, for example, groups of GPs working together and providing services such x-rays and minor surgery.
- Urgent and emergency care vanguards: integrated providers adopting new approaches to improve the coordination of services with the aim of reducing pressure on accident and emergency departments.
- Acute care collaborations – linking local hospitals together to improve their clinical and financial viability;
- Enhanced health services in care homes, offering older people better, joined up health, care and rehabilitation services (sometimes known as Primary Care Homes).

In 2016, NHS organisations (especially CCGs) and local councils were required to come together to set out Sustainability and Transformation Plans. These plans were each of five years duration, based on forty four geographical footprints. Whereas the partnerships referred to above are different types of partnerships between health and care *providers*, Sustainability and Transformation Plans were essentially plans for place-based *commissioning*, with new partnerships between the various bodies with responsibilities to commission health and care for local populations. The myriad of different integration models that emerged in the subsequent period are summarised in Figure 6. Building on the analysis in House of

Commons Health and Social Care Select Committee (2018), The King's Fund (2018a), NHS (n.d.-c), NHS England and NHS Improvement (2019) and Baird (2019), these can be broadly categorised in terms of place-based *provider* arrangements and place-based *commissioning* arrangements. In practice, however, the differentiation between provider based integrated models, and commissioning-based integration models, became increasingly blurred. In addition, the proposals for elimination of statutory barriers to integration discussed below made space for the possibility of *joint* place-based provision and commissioning arrangements.

In the years running up to the pandemic, several high-level bodies had key identified that progress towards integrated care had been too slow. Six key barriers to integration can be identified from the analysis in (National Audit Office, 2017; House of Commons Committee of Public Accounts, 2018; House of Commons Health and Social Care Select Committee, 2018; Care Quality Commission, 2019).

- First, Brexit bandwidth effects, which meant that political focus was on Brexit, and social policy objectives, including health and social care integration, were neglected.
- Second, integration was affected by resource and workforce constraints, which meant that the NHS was operating in 'survival mode'.
- Third, there was some political opposition to the integration process – with integrated care associated with efficiency savings, cuts and privatisation. This was partly due to the widespread association of the Sustainability and Transformation Plans put into place in 2016 with efficiency savings. In addition, the Accountable Care Organisation model (subsequently known as Integrated Care Providers) was opposed by campaigning organisations such as 'Keep Our NHS Public', resulting in a (failed) judicial review into ACO contracts in 2018.
- Fourth, separate funding systems (with tax funded healthcare free at the point of delivery and social care subject to means testing) militated against health and care integration.
- Fifth, data sharing arrangements were problematic.
- Sixth, Sustainability and Transformation Partnerships were constrained by the existing legislative framework which was identified as a barrier to collaboration and service integration (c.f. section 4.4.1).

Figure 6 Evolution of arrangements for integrated care

Provider-based integration models

- A variety of collaborative place-based provider partnership arrangements have evolved from the original fifty 'vanguard' models referred to above, and are currently at different stages of development. These are generally known as *Integrated Care Partnerships (ICPs)*. *Accountable Care Organisations (ACOs)* are established when commissioners award a long-term contract to a single organisation to provide a range of services to a defined population. These are under discussion and NHS England has developed a new ACO contract. To date, judicial reviews of these arrangements have failed.
- In 2019, the NHS Longterm Plan established the goal of rolling out primary care networks (PCN) as a vehicle for delivering its commitments, evolving from the Primary Care Home vanguards model. PCNs are formed when GP practices work together and with other providers of community, mental health, social care, pharmacy and other services to provide integrated, person-centred and co-ordinated care.
- As of October 2019, 1,250 primary care networks had been established covering all but a few GPs covering populations of approximately 30–50,000 patients. In the future, these will be the geographical footprint around which integrated community-based teams will develop, feeding into broader integrated care systems (ICSs). They will be responsible for the delivery of some of the commitments in The NHS Long Term Plan through the introduction of seven service specifications (structured medications review and optimisation; enhanced health in care homes; anticipatory care; personalised care; supporting early cancer diagnosis; cardiovascular disease prevention and diagnosis; and tackling neighbourhood inequalities). The first five service specifications will be introduced in full or partially in 2020-21, with the remaining specifications coming into force in 2021-22.

Commissioner-based integration models

- A variety of integrated place-based commissioning arrangements evolved from the Sustainability and Transformation Plans that were put into place in 2016. These are known as *Sustainability and Transformation Partnerships (or STPs)*. As of June 2019, there were 42 STPs.
- The most evolved STPs are recognised as *Integrated Care Systems (ICSs)* - previously known as *Accountable Care Systems or ACSs*. These are arrangements where local government and health organisations take a collective responsibility for planning and commissioning health and social care, including managing resources, delivering NHS standards, and improving the health of the population they serve.
- As of June 2019, there were fourteen ICSs covering more than a third of the country's population. The most evolved ICSs include Greater Manchester and Surrey Heartlands, both of which are also part of the Government's new city-region devolution arrangements.
- In 2019, the NHS Longterm Plan established the goal of rolling out the ICS model across England by 2021.

Source: House of Commons Health and Social Care Select Committee (2018), King's Fund (2018a), NHS (n.d.-c), NHS England & NHS Improvement (2019) and Baird (2019)

Analysis by the House of Commons Health and Social Care Committee concluded that there was no hard evidence that integrated care, at least in the short term, saved money, since it may help to identify unmet need. In

addition, the Health and Social Care Select Committee suggested that while NHS England's definition of integrated care focuses on the delivery of co-ordinated and person-centred care that is organised around individual needs, there has often been a tendency to focus on organisational or service level definitions and / or on indicators such as number of avoidable emergency admissions and / or delayed discharges. The Committee highlighted the importance of focussing first and foremost on the outcomes that integrated care seeks to achieve from the patient's perspective, and for developing criteria that will be used to measure whether those objectives have been achieved in practice. Data from the NHS patient experience survey data provides one source of information, with the latest round of data indicating declines in patient experience of integrated care (House of Commons Health and Social Care Select Committee, 2018) (c.f. 6.5.4).

Progress towards integrated health and care was also assessed in a series of reports published by the National Audit Office. Two early reports focussed on the outcomes of the Better Care Fund, which had been introduced under the Coalition in the June 2013 Spending Round. This aimed to reduce pressure on the healthcare system by using funds allocated to the NHS to invest in integrated health and social care services, with NHS organisations (CCGs) and local authorities pooling budgets and jointly planning, allocating resources and delivering local services. The June 2013 spending round announced the reallocation of £5.3 billion, with a view to saving £1 billion by keeping patients out of hospitals and ensuring timely discharges. However, plans to deliver substantial cost savings by keeping individuals out of hospitals were challenged by NAO, which highlighted a lack of evidence that integrated care reduces unplanned hospital admissions (National Audit Office, 2014a). In 2017, the NAO concluded that the £5.3 billion spent in 2015/16 had not delivered value for money. Emergency hospital admissions had increased by 87,000 between 2014/15 and 2015/16, rather than the planned reduction of 106,000, which had cost an additional £311 million. Delayed transfers of care increased by 185,000 days, rather than the planned reduction of 293,000, which had cost £146 million more (National Audit Office, 2017).

Subsequent NAO assessments focused on the service transformation plan introduced in the Five Year Forward View plan. In 2018, the NAO found that while there were signs that some new care models had a positive impact on reducing demand for urgent care, the transformation programme had not provided the evidence needed at a system level on what worked and what did not work, and that new place-based care models only covered 9% of the population in 2018 when the vanguard programme ended (National Audit Office, 2018). In 2020, the NAO noted that NHS England's original intention to expand the vanguard programme, with a further five waves of

vanguards, was not realised because funding was reallocated to reducing the financial deficits of trusts. Moreover, Sustainability and Transformation Partnerships faced significant challenges, with 64% with deficits in 2018-19 when all their constituent trusts' and CCGs' finances were added together and with their ability to deliver The NHS Long Term Plan compromised in some cases (National Audit Office, 2020a).

NAO's overall assessment in early 2020 was that the NHS had *not* fully achieved the vision set out in the Five Year Forward View. In relation to the service transformation programme, NAO concluded that integrated health and care models were found to have been taken forward but not fully implemented. In relation to the ambition of strengthening care out of hospitals, NAO concluded that whilst out-of-hospital (primary and community) care had become more integrated and a larger part of what the NHS does, total spending on primary medical and community health services *declined* as a proportion of the NHS expenditure decreased between 2015-16 and 2018-19. In relation to the key theme 'reducing demand for services through a greater focus on public health and prevention', this ambition was not matched by dedicated funding. Indeed, NAO concluded that "the health and social care sector has not been able to focus as much on prevention and public health as expected, because of financial constraints in the NHS and local government, with the public health grant to local authorities decreasing by £0.5 billion (12%) in real terms over the period" (National Audit Office, 2020a) (c.f. section 0).

4.1.1 New devolved arrangements for healthcare

Devolution is an increasingly important element of the context for social policy making in Britain. Health has been a devolved function since the devolution settlement in the late 1990s when responsibilities for the NHS was devolved to the administrations in Scotland and Wales. Important healthcare divergences opened up in the wake of the 1997 devolution settlement, particularly in relation to organisation, management and healthcare reform, with the devolved administrations explicitly rejecting the purchaser-provider split and policy emphasis on competition, choice and quality ratings as drivers of healthcare quality improvement. Policy emphasis on integrated care in Scotland is frequently contrasted with the purchaser provider split and policy emphasis on competition in England. Prior to 2014, health commissioning and provision in Scotland was integrated under the management of NHS Boards which established community health partnerships as a means of achieving greater integration within the NHS and between health and social care. New legislation passed in 2014 requires local authorities and NHS Boards to delegate a wide range of functions to integration authorities which provide a single system for the joint commissioning of health and social care services (Parkin 2019). Other

important differences related to prescription charges, personal care and NHS dental check-ups, all of which are free in Scotland and the first of which is free in Wales. In relation to public health, Scotland was the first of the three nations to introduce a smoking ban in public places, and more recently the first to introduce a Minimum Unit Pricing system for alcohol (c.f. section 4.2.2).

Several studies including Connolly et al. (2011: 16), Propper et al (2008) and Bevan and Fasolo (2013), Bevan et al (2014), Bevan and Wilson (2013) and Bevan et al (2018) have suggested that the introduction of devolution in health services provides a “natural experiment” for evaluating the impact of different policy instruments (particularly around competition and choice, the purchaser/provider split and the use of quality ratings) on the achievement of common policy goals such as reducing waiting times and improving quality across the countries of the UK. One early study concluded that the performance of the NHS in England was better than in the other countries of the UK across a range of outcome indicators, and interpreted this finding as providing evidence of the positive impact of policy measures such as competition and institutional ratings in England (e.g. see (Connolly et al., 2011)). However, a later report found that differences in crude productivity were accounted for by definitional differences supplied by each country and published by ONS. Furthermore, outcome gaps were found to have narrowed, with Scotland in particular improving its performance on waiting times. The authors conclude that different policies adopted in the devolved countries appear to have made little difference to long-term national trends on most of the indicators evaluated. This lack of clear-cut differences in performance, the authors contend, “may be surprising given the extent of debate about differences in structure, provider competition, patient choice and use of non-NHS providers across the four countries” (Bevan et al., 2014)³.

In general, in the years running up to the pandemic, there was a growing overlap between policy discussions around the provision of integrated health and care services, and the devolution agenda - with devolution increasingly viewed by NHS England as a key enabler of integration by supporting arrangements for local shared accountability that can underpin the integrated commissioning and provision of health and care services

³In other studies, Bevan and Wilson (2013) that the introduction of the hospital ratings system improved performance in England relative to Wales. Bevan et al (2018) examine natural experiment difference in difference evidence, concluding that benchmarking healthcare performance results in reputational effects which in turn are a driver of quality.

(NHS, n.d.c.). During the five-year period under examination, the Cities and Local Government Devolution Act 2016 enabled the devolution of functions from national public authorities to local government. The Devolution Act also included changes to the NHS Act 2006 which enabled better joint working or the delegation of health functions across health bodies and local government (NHS England, n.d.a). Greater Manchester devolution arrangements were examined as part of the SPDO research programme in Lupton et al (2018). The Greater Manchester Partnership was introduced a landmark agreement bringing together NHS organisations, councils, primary care, NHS England, community and voluntary social enterprise organisations, Healthwatch as well as Greater Manchester Police and Fire and Rescue Service. The Partnership became responsible for the devolved £6 billion health and social care budget and for commissioning health and care services for the local population of 2.8 million (NHS, n.d.a.). Devolution pilots were also taken forward in several other regions, including a London Health and Care Collaboration agreement, and additional health devolution arrangements agreed between NHS England and CCGs in Surrey Heartlands (Parkin, 2019).

4.1.2 Giving equality priority to mental health

The Autumn 2015 Comprehensive Spending Review included a commitment to prioritise mental health spending and NHS guidance for 2016/17-2020/21 required CCGs to increase investment in mental health services each year at a level which at least matches their overall expenditure. The 'Mental Health Investment Standard' (MHIS) was introduced in 2015/16. This required CCGs to increase their funding for mental health services in line with their overall increase in funding each year and provides NHS England with a baseline for assessing the implementation of parity of esteem in terms of resource allocation.

In December 2015, the Government's mandate to NHS England for 2015/2016 stated that "NHS England's objective is to put mental health on a par with physical health" and NHS England and the Department of Health introduced the first mental health access and waiting time standards (Department of Health, 2015b). In the wake of the Brexit referendum, Theresa May's "burning injustices" speech in 2016 highlighted mental health as a key concern to be addressed in the upcoming period. Later the same year, the findings of an Independent Task Force, the Five Year Forward View for Mental Health, were published. This highlighted the need for the allocation of additional resources to mental health services and set out a series of ambitions for mental health to be met by 2020/2021, including ending the practice of sending people out of their local area for inpatient care, expanding 24/7 crisis support and improving access to psychological therapies (IAPT). The recommendations were accepted by

the May Government and NHS England (Independent Mental Health Taskforce to the NHS in England, 2016; Parkin & Powell, 2020).

As noted above, the 2017 Conservative Manifesto committed the May Government to a broadly scoped agenda on mental health addressing the need to tackle stigma, transform services, to provide support in the workplace and schools, and to reform laws and detention practices. Findings from a review on mental health support in the workplace were published in October 2017. This suggested that 300,000 people with longterm mental health problems lose their jobs each year and estimated that the economic cost of mental health conditions is between £74 and £99 billion a year, including lost productivity output, the cost of benefits and healthcare costs (Stevenson & Farmer, 2017; McKnight & Cooper, forthcoming). Finally in December 2017, a Green paper aimed at transforming children and young peoples' mental health was published. This highlighted three key measures: introducing senior designated mental health leaders in schools and colleges; funding of new Mental Health Support Teams, to be jointly managed by schools, colleges and the NHS; and roll out of four week waiting times to specialist NHS children and young people's mental health services. The Green paper was subsequently criticised for not having a sufficient focus on key vulnerable groups and adding to the pressures on the teaching workforce without adequate resources. In addition, the Green Paper was criticized for being too narrow in scope, paying insufficient attention to early years and neglecting broader aspects of the prevention agenda, such as educational pressures and exam stress (Education and Health and Social & Care Committees, 2018).

There were five key developments in 2018:

- The findings of a body established to review the 1983 Mental Health Act were published. This had been commissioned in response to growing concerns relating to the increasing number of detentions under the Mental Health Act and disproportionate use of the Act to detain individuals from Black and ethnic minority groups. Equality and human rights concerns had been raised by bodies such as the Equality and Human Rights Commission, the Race Disparity Unit and the UN Committee on the Rights of Peoples with Disabilities. This included concerns relating to both mental health detention (specifically, the use of sanctioning to detain rather than treat; length of detention; procedures for challenging detention; the operation of tribunals; discharge procedures; and difficulties with discharge for those on community treatment orders) and conditions of detention (including seclusion, restraint, use of force and enforced treatment and limited family information). The Review concluded that the 1983 Act does not adequately protect individual rights and called for more

protections for individual preferences and rights, including new rights to legally challenge detention and treatment; mental health legislation and practice that upholds the principles of least restriction, dignity and respect; an end to the use of police cells as a place of safety; and measures to address racial inequalities (Department of Health and Social Care, 2018b; Parkin & Powell, 2020).

- A Private Members Bill resulted in new legislation that makes provision for enhanced oversight and management of the appropriate use of force in relation to people in mental health units, and the use of body cameras by police officers in the course of duties in relation to people in mental health units (Mental Health Units (Use of Force) Act, 2018).
- On finances, the then Chancellor Philip Hammond announced that mental health spend would increase at a rate greater than resources for the NHS as a whole in the 2018 budget. The July 2018 NHS birthday present – the new financial settlement for the NHS highlighted above – included £2 billion funds allocated to mental health by 2023/4 on top of other funding, to be spent on a new children and young peoples’ crisis service, community services, support in A&E, specialist ambulances and school based support teams (Sparrow, 2018) (Gilburt, 2018b).
- The new role of Minister for Mental Health, Inequalities and Suicide Prevention was created and a new system of annual review of children’s mental health was introduced.
- The Government’s 2018/2019 mandate to the NHS required “measurable progress towards the parity of esteem for mental health enshrined in the NHS Constitution, particularly for those in vulnerable situations”. The mandate included a system-wide transformation in children and young people’s mental health with a greater focus on prevention and early intervention, as well as improvements to perinatal mental health (Department of Health and Social Care, 2019b). In January 2019, the NHS Long Term Plan (NHS England & NHS Improvement, 2019) repeated commitments to increase spending on mental health services at a faster than the NHS budget overall for the next five years. The plan also committed to a further expansion of the Improving Access to Psychological Therapies (IAPT) programme which are accessed through primary care services, as well as the introduction of new waiting time standards for community mental health services and the development of new integrated and place-based care models for individuals with severe mental health conditions. Further commitments were made to improve crisis

provision, including access for adults to a 24/7 community crisis response by 2020/21; universal mental health crisis support via NHS 111 ten years; alternative crisis provision; training of ambulance staff; ending acute out-of-area placements by 2021. The need for capital investment to fund the upgrading of the physical environment for inpatient psychiatric care and a programme of suicide reduction were also highlighted (NHS, 2019n; NHS England & NHS Improvement, 2019: 68).

In late 2019, the Conservative Manifesto included a general commitment to improve mental health. Both the October and December 2019 Queens Speeches stated that the Government would work to reform the 1983 Mental Health Act and prior to the pandemic, the Johnson Government had indicated that it would produce a White Paper in early 2020 (Parkin & Powell, 2020).

4.1.3 Minimum standards

Follow up to the Frances Review

The Frances Inquiry and its recommendations remained at the top of the health agenda when the Cameron Government was elected in 2015. As we discussed in section 2, new fundamental standards of care were introduced in the wake of the Frances Review just prior to the May 2015 General Election (in April 2015) and these were key new elements of the regulatory framework adopted by the Care Quality Commission between May 2015 and early 2020. Health Secretary Jeremy Hunt had also begun to articulate the notion of the right of older people to dignity and respect in health and social care prior to the 2015 General Election (BBC, 2014).

As discussed in Vizard and Burchardt (2021), the new fundamental standards of care raised the profile of dignity and respect, and meeting individual nutritional needs, as key markers of good quality and person centred care. There was also regulatory recognition that failures of responsiveness and meeting older people's needs are more likely to occur when needs for support are not recognised, for example, in the context of dementia patients (Care Quality Commission, 2018:19-32; Vizard & Burchardt, 2021). While the number of nurses increased following the Frances Review, workforce and staffing challenges were a key concern during the five year period under examination. Patient experience data relating to dignity and respect and support with eating showed some improvement after the Frances Review to 2015, but subsequently deteriorated (c.f. 6.5.4).

The Care Quality Commission undertook an evaluation of how local organisations work together to meet the needs of older people in different

local areas in England in 2018. This identified uneven developments with some instances of good practice but also cases of poor practice and ineffective coordination of health and care services. Austerity driven funding pressures were identified as one of the factors that had negatively impacted on progress (CQC 2018 2019).

Safer maternity and childbirth ambitions

In March 2015, the report of investigation into maternity services at Morecambe Bay NHS Foundation Trust hospitals revealed “serious and shocking” concerns including evidence of care failures and failures in regulation and monitoring (Kirkup 2015). Safer maternity was a particular focus following the 2015 General Election under the then Secretary of State for Health Jeremy Hunt. A safer maternity strategy was published and set out the Government’s commitments relating to the safety of maternity care including key outcome orientated national ambitions relating to reductions in stillbirths, neonatal mortality and maternal deaths. Following on from the NHS Five Year Forward View, a review of maternity care was undertaken, and a Five Year Forward View for Maternity Care was published in 2017. This included a series of recommendations on meeting the changing needs of mothers and babies. A Maternity Transformation Programme was subsequently created to implement these recommendations while the Government’s high level maternity safety ambitions were updated, with revised ambitions to half the rates of stillbirths, neonatal mortality, maternal deaths and brain injuries that occur during or soon after birth by 2025; to achieve a 20% reduction in these rates by 2020; and to reduce the preterm birth rate from 8% to 6% in 2025. Maternity and perinatal health were also given high profile in the NHS Longterm Plan published in 2020. In addition, there were commitments to train more midwives and to expansion of perinatal mental health support services (Department of Health and Social Care, 2020). However, an inquiry into a cluster of baby deaths at the Shrewsbury and Telford Hospital Trust was announced by Jeremy Hunt in 2017 and the number of suspect cases had increased to 900 on the eve of the pandemic (c.f. section 6.5.1) while a growing evidence base identified socioeconomic and ethnic disparities in infant mortality, maternity mortality, neonatal mortality and stillbirths (c.f. 7.4.7).

4.1.4 Access to healthcare and the ‘hostile environment’

The ‘hostile environment’ for immigration introduced by the Coalition (on which, see section 2.3) was further extended and entrenched after the May 2015 General Election, with the enactment of the Immigration Act (2016). The aim of the Act was to make it more difficult for migrants to live and work in the UK and included specific measures to limit the access of illegal

immigrants to services. In 2016, the amount of unpaid debt that the Home Office could include as a ground for refusing a visa application or extension of stay was reduced from £1000 to £500 and was applied to unpaid debts that were outstanding for two (rather than three) months. New guidance on administration and data sharing in the context of overseas chargeable patients stated:

“If you fail to pay for NHS treatment for which charges have been applied, it may result in a future immigration application to enter or remain in the UK being denied. Necessary nonclinical personal information may be passed via the Department of Health (DH) to the Home Office for this purpose (Department of Health, 2016a).

In 2017, new NHS charging regulations further extended the scope of charging for those without permanent UK residency. The new regulations required NHS providers to secure advance payment for chargeable healthcare services and extended the scope of charging to cover community health services such as midwifery, district nursing, drug and alcohol treatment and mental health services (but not GP services) (The National Health Service, 2017; Miller, 2021). Data sharing arrangements between the NHS and Home Office also became more embedded. In 2017, NHS Digital, Department of Health and the Home Office signed a Memorandum of Understanding that allowed the Home Office to request the disclosure and sharing of nonclinical data information on the NHS data spine (including home address, gender and date of birth). This broadened the scope of data sharing arrangements, which had previously been restricted to data sharing in relation to outstanding debt (Miller, 2021).

Specific concerns were expressed in relation to this inter-departmental data sharing and the use of NHS data as a tool for immigration enforcement by the Home Office (Doctors of the World, 2017a), with media reports suggesting that data sharing between the NHS and the Home Office was resulting in thousands being traced by immigration enforcement agencies (Travis, 2017). There was also evidence that while the original justification of data sharing related to NHS debt, shared data was being used more generally (Miller, 2021; Independent Chief Inspector of Borders and Immigration, 2019 from paragraph 6.17). In early 2018, the Health and Care Select Committee wrote to NHS Digital requesting that it withdraw from the Memorandum of Understanding and stop sharing information with the Home Office for immigration tracing purposes pending a review. In April 2018, a report on data sharing between NHS Digital and the Home Office by the Select Committee on Health and Social Care repeated that recommendation and endorsed the view expressed by Public Health England that:

“[T]he perceived or actual sharing of identifiable information from confidential health records in order to trace individuals in relation to possible immigration offences [...] could present a serious risk to public health and has the potential to adversely impact on

the discharge by PHE of the Secretary of State's statutory health protection duty" (UK Parliament, 2018a)

While the Government's initial reaction was to justify existing data sharing arrangements (Home Office & DHSC, 2019), an amendment to data sharing between the NHS and Home Office was introduced in May 2018 during the second reading of the Data Protection Bill. This aimed to narrow the scope of the MoU so that it facilitates data sharing in instances of serious criminality only. The broader context of this amendment was the suspension of several bulk data sharing agreements for the purposes ceasing employment or benefits in wake of the Windrush scandal (Independent Chief Inspector of Borders and Immigration, 2019). Media reports suggested that the Home Office had committed to a new agreement that would only make data requests about migrants facing deportation action because they had committed serious crimes (Gray, 2018) and that a u-turn in a key element in 'hostile environment' immigration policy had occurred (Campbell, 2018). A Memorandum of Understanding revision plan was published (Department of Health, 2016a) and the Memorandum of Understanding was withdrawn in November 2018. Following a review, the then Minister for Health Stephen Hammond stated in December 2018 that there was no significant evidence that the 2017 Amendment Regulations had led to overseas visitors being deterred from treatment of that the changes had had an impact on public health (UK Parliament, 2018b). New guidance published in 2019 confirmed that unpaid debt for NHS services would continue to be a ground to refuse an application for a new visa, or extension of stay for a person subject to immigration control" (Department of Health and Social Care, 2019a).

Serious concerns were raised in relation to the adverse impact of the charging regime on access to healthcare and on health and mortality outcomes.

- In 2016, the UN Committee on Economic, Social and Cultural Rights issued its concluding observations on the sixth periodic report of the UK under the International Convention on Economic, Social and Cultural Rights. This raised concerns that that refugees, asylum seekers and refused asylums seekers, were facing discrimination in accessing health-care services, and that the Immigration Act 2014 had further restricted access to health services by temporary migrants and undocumented migrants (UN Committee on Economic and Social Council, 2016). There were also calls for an independent review (Royal College of Physicians, 2018).
- While lifesaving and urgent care should have been exempt from charging, concerns were expressed in relation to access to healthcare that is urgent or life-saving being denied or delayed to non-UK

citizens – including documented cases relating to cancer care, cardiac care, heart transplants and palliative care - and in relation to charges for communicable diseases such as TB care (Doctors of the World, 2020; Gentleman, 2018; Nellums et al., 2018a, 2018b).

- Similarly, under the rules being applied, primary care (GP services) should have been exempt. However, analysis of GP registrations between 2014 and 2017 by Glennerster and Hodson (2020) shows that the well-publicised hostile environment in NHS hospitals coincided with an increase in the number of asylum seekers, refugees and unlicensed immigrants being refused GP registration (particularly for reasons based on immigration status and gatekeeping behaviour). Moreover, some GP practices were mistakenly denying registration to people without specific documents and declaring this policy on their websites (Glennerster & Hodson, 2020).
- In the context of maternity care, NGOs argued that charging for maternity care should be not required up-front under the 'immediately necessary or urgent' rules. Maternity Action (2018) and Doctors of the World (2017c) argued that charging was having a significant deterrent effect on pregnant undocumented migrants seeking to access antenatal care. Pregnant women were incorrectly charged for services in some instances and aggressive cost recovery measures constituted a barrier to accessing maternity care.
- The findings of the Confidential Inquiry into Maternal Mortality 2015-2017 highlighted three maternal deaths where the women involved may have been reluctant to access care because of concerns over charging and the impact of immigration status (Knight et al 2019). The effect of these policies were identified as being at odds with the Safer Maternity Care Action Plan (Department of Health, 2016b), which sought to halve stillbirths, neonatal deaths and maternal deaths by 2030, including by improving access to antenatal care.
- The hostile environment policy was a major factor behind the Windrush generation scandal that was revealed in 2018. Denial of access to healthcare, such as the denial of cancer care, occurred as part of the scandal (Gentleman, 2018; Siddique, 2018) and lack of access to free healthcare ultimately became an official ground for compensation under the Windrush compensation scheme. Reporting in 2020, the Independent Inquiry into the Windrush Scandal concluded that warning signs and messages about the hostile environment policy had not been heeded; that policy embedded the incorrect assumption that there was no settled but undocumented

generation; and that monitoring of racial impact of policies by the Home Office was poor (Williams, 2020)⁴.

- In late 2019, a judicial review of the policy of charging migrant women in receipt of local authority Section 17 support – which requires families to show that a child is at risk and they are destitute – for NHS maternity care was launched by Maternity Action in late 2019. However, the application for review was refused by the courts on the grounds that matters of resource allocation are within a state’s margin of discretion (Bragg, 2019; Luh, 2019; Taylor, 2020).

More broadly, the sum paid by overseas visitors to cover the health surcharge was also on an increasing trajectory between the General Election in May 2015 and early 2020, the eve of the pandemic. The health surcharge was doubled to £400 in January 2019 and a further increase was included as a commitment in the Conservative Party 2019 Manifesto (on which, see section 3.5). The March 2020 Budget confirmed a further planned increase to £624 per year in October 2020. Further announcements in early 2020 suggested that EEA nationals moving to the UK after the Brexit transition period would be required to pay the surcharge (Department of Health & Social Care, 2019; Department of Health, 2014; Doctors of the World, 2017b; Gower & Wilkins, 2020; Public Health England, 2014; RMCC, 2018).

4.2 Key developments in public and preventative health

The strategic importance of healthcare prevention activities within the health system was recognised in the NHS England Five Year Forward View plan. As noted in section 2.1.5, this addressed the need for a major shift towards a more activist prevention and public health agenda, with intensified efforts to address obesity, smoking and alcohol consumption and health inequalities. During the five-year period under examination, non-medical social prescribing was increasingly viewed as a key component of personalised care and the NHS Longterm Plan (2019) committed the NHS to building the infrastructure for social prescribing in primary care and mainstreaming the social prescribing approach across the NHS. The government’s 2019 prevention green paper also recognised the importance of technological and medical advances such as artificial intelligence and genomics in transforming the healthcare prevention agenda in the 2020s.

⁴ Doctors of the World (2020)

Internationally, there is a growing trend to use legal and fiscal measures to promote good health. The objectives of these tools are to reduce or eliminate harmful behavior or to incentivize behaviors that protect and promote good health. There is a growing international evidence base on the efficacy of these measures, including a substantial body of evidence on the association between legislative bans on improving cardiovascular health outcomes, and reducing mortality for associated smoking-related illnesses (Frazer et al., 2016). An international evidence review published in September 2019 suggested that 50 jurisdictions now levy taxes on soft drinks, many of which have been implemented in the past couple of years. Examples include Mexico, France, Norway and several US cities and states including Philadelphia and Washington. All follow up studies found that the imposition of a sugar levy increased the price of taxed drinks and most studies found that the imposition of a sugar levy reduced purchases of taxed drinks (Griffith, 2019).

A series of fiscal and regulatory measures designed to promote public health were introduced or came into force during the five-year period under examination. These were criticized for being too limited given the scale of need in areas such as obesity and have been a necessary response to EU Directives and / or a means of implementing pre-existing commitments in some cases. Nevertheless, it is notable that both the Cameron and May administrations showed some willingness to make use of fiscal and regulatory tools to promote public health. Moreover, the Government actively defended some of its public health measures against legal challenges by private corporations in the Courts. However, the “nanny state” narrative made a return during the heat of the Conservative Party leadership election and on the eve of the transition of the premiership from May to Johnson in summer 2019.

4.2.1 Obesity

A childhood obesity plan was published in 2016. This announced the introduction of a ‘sugar tax’ on high added sugar content soft drinks as part of a sugar reduction programme, which aims to reduce sugar content across a range of products that contribute to childhood obesity by at least 20% by 2020. In addition, a voluntary scheme aiming to reduce sugar in a range of food products such as biscuits, cakes and cereals was introduced and the plan indicated the further use of the tax system to reduce sugar, should the voluntary scheme fail in its objectives (HM Government, 2016).

The Government’s childhood obesity plan was widely criticised as being limited and watered down. The failure to restrict TV advertising of junk food to children and to curb supermarket promotions, together with the voluntary nature of the reformulation scheme, were singled out for particular criticism (The King’s Fund, 2017). In 2018, the Select Committee

on Health and Social Care set out a series of recommendations relating to advertising and marketing, discounting and price promotions and labelling. Further recommendations were made in relation to the extension of fiscal measures to reduce consumption of sugar, salt and fat; and relation to early years nutrition and breastfeeding services; and treatment for those who are obese. The Committee also highlighted the need for co-ordinated local and central public action in addressing childhood obesity, including an extension of local regulatory powers to reduce health inequalities (Health and Social Care Committee, 2018).

The Government's updated childhood obesity plan was published in 2018 in response to recommendations published in the Health and Care Select Committee report. This signalled an intention to move forward and to legislate in a number of the areas highlighted by the Committee following a consultative process. The plan included a target to halve childhood obesity by 2030 and to reduce inequalities (HM Government, 2018b; The King's Fund, 2018b).

The sugar levy came into effect in April 2018 with drink manufacturers tax based on the volume of added sugar they produce or import, with tax rates of 24p per litre for drinks containing 8 grams of sugar per 100 millilitres, or 18p per litre of drink if it contains between 5-8 grams of sugar per 100 millilitres. Exemptions include pure fruit juices (with no added sugar) and milks with a high milk (calcium) content. Drink manufacturers moved to reduce the sugar content of soft drinks in the run up to the implementation of the levy, and Treasury forecasts of tax receipts had already fallen from £500 million to £240 million a year at the time the levy came into force. Manufacturers such as Suntory and AG Barr cut the sugar content of a range of soft drinks such as Ribena, Lucozade and Irn Bru. Coca Cola did not change the recipe for its classic drink but reduced bottle size, while reducing sugar content and / or expanding zero sugar substitutes for another products such as Fanta (HM Treasury, 2018; Triggle, 2018; Wood, 2018).

In the UK context, a recent study of the consumer response to calls to reduce sugar consumption including the sugar tax on soft drinks found that between 2015 and 2018, the volume of sugars sold per capita per day from soft drinks declined by 30%, equivalent to a reduction of 4.6 g per capita per day. The sales-weighted mean sugar content of soft drinks fell from 4.4 g/100 ml in 2015 to 2.9 g/100 ml in 2018. The total volume sales of soft drinks that are subject to the SDIL (i.e. contain more than 5 g/100 ml of sugar) fell by 50%, while volume sales of low- and zero-sugar (< 5 g/100 ml) drinks rose by 40% (Bandy et al., 2020).

In January, 2019, the publication of the NHS Long Term Plan included increased focus on obesity, building on the plans set out in the 2014 Five Year Forward View. In July 2019 – the month in which Cancer Research UK confirmed that obesity is now the leading cause of cancer in the UK, and during the final stages of the Conservative Party leadership race - Boris Johnson pledged to undertake a comprehensive review as to whether “stealth sin taxes” - taxes on sugar, salt and fat - were successful in changing behaviour and whether they disproportionately affected poorer consumers, should he become Prime Minister (Stewart, 2019).

This announcement was made days before the publication of a green paper on the prevention of ill-health which recommended forcing tobacco firms to pay a levy towards treating people who develop smoking-related diseases, banning the sale of energy drinks to under-16s and widening the scope of the sugar tax from soft drinks to other highly sweetened products such as milkshakes. Health Secretary Matt Hancock had previously stated that the sugar tax had been successful in “proving that population-wide measures work and are necessary, alongside promoting healthier behaviours and empowering individuals to make better choices”. However, he strongly opposed the publication of the green paper in the last hours of the May administration. Publication ultimately proceeded hours before May handed over the premiership to Boris Johnson (Campbell & Stewart, 2019; HM Government, 2019c).

In October 2019, an independent report by the Chief Medical Officer concluded that progress under the voluntary reformulation scheme, which had been overseen by Public Health England, had been disappointing. The report highlighted the importance of innovative approaches being taken forward by local authorities, which need to be evaluated and scaled, including the creation of super-zones to limit the sale of fast food and restrict unhealthy food advertising. In addition, the report recommended extending the soft drinks levy to cover high sugar content milky drinks, accelerating progress of the reformulation scheme through fiscal or other regulatory measures such as standard packaging if necessary, introducing a calorie ceiling and using fiscal measures to rebalance the cost of food and drink following exit from the EU, limiting marketing and advertising and banning eating and drinking on urban public transport (CMO, 2019).

The prevention of obesity was key to the NHS Five Year Forward View plan, including the projected savings that could be delivered as a result of making progress on reducing demand for healthcare through preventative health measures (NHS, 2014). A series of further measures were set out in the NHS Long Term Plan (NHS England & NHS Improvement, 2019).

4.2.2 Alcohol

There are two key policy options for regulating alcohol through pricing: the first is a prohibition on below cost alcohol pricing; and the second is to introduce a system of minimum unit pricing. In general, the second of these policy options is regarded as the more effective measure.

A ban on below cost alcohol pricing was introduced in England under the Coalition in 2014 (Vizard & Obolenskaya, 2015). The Scottish Parliament went further by passing the Alcohol (Minimum Pricing) (Scotland) Act in 2012. This empowered Scottish Ministers to introduce a system of Minimum Unit Pricing for alcohol. The minimum unit price follows a broad suite of policy measures aimed at reducing alcohol consumption in Scotland, initiated by the Scottish Government's 2009 Alcohol Framework (Scottish Government, 2018).

The implementation of this legislation was substantially delayed by legal challenges by the Whiskey Association in European, Scottish Courts and UK Courts. The UK Supreme Court ruled that the system of minimum unit pricing was proportionate in the sense required by European Union law and elaborated by the Court of Justice and confirmed that the Scottish legislation is lawful in 2017⁵. A minimum unit price for alcohol of 50 pence per unit was subsequently implemented in Scotland 2018, with a similar introduced in Wales in March 2020 (Scottish Government, n.d.-a; BBC, 2019b; UK Supreme Court, 2017).

4.2.3 Smoking

A ban on smoking in cars with children present came into force in England and Wales in October 2015 and in Scotland 2018. Two key new tobacco product regulations were also introduced in response to a major new European Union Directive focussing on the harmonisation of tobacco regulation. The EU Directive was in turn introduced in order to implement the World Health Organisation Framework Convention on Tobacco Control, agreed in 2003, to which the EU (and Member States) are party. The Tobacco Products Directive (European Commission, 2014) became

⁵The ruling concluded: "As to the general advantages and values of minimum pricing for health in relation to the benefits of free EU trade and competition, the Scottish Parliament and Government have as a matter of general policy decided to put very great weight on combatting alcohol-related mortality and hospitalisation and other forms of alcohol-related harm. That was a judgment which it was for them to make, and their right to make it militates strongly against intrusive review by a domestic court" (UK Supreme Court, 2017, para. 63).

applicable in the 28 EU Member States in 2016. It introduced new regulations relating to tobacco products and e-cigarettes, especially regarding textual and pictorial health warnings, labelling, packaging and flavouring.

In the UK, a requirement to issue graphic health warnings on cigarette packets, hand rolled tobacco and related tobacco products was incorporated through the Tobacco and Related Products Regulations (2016). In addition, a plain packaging requirement was established in the Standardised Packaging of Tobacco Products Regulations (2015) which came into force in April 2017.

The major tobacco companies launched a series of legal challenges to the implementation of the European Tobacco Products Directive and related legislation in EU Member States and other countries where similar measures have been introduced, including Uruguay. A key challenge by Philip Morris, British American Tobacco and Imperial Tobacco was considered by the High Court for England and Wales (2016) and the European Court (2016). In rejecting these challenges, the Courts ruled that the trading rights of the tobacco industry under EU law requires balancing with a high level of protection for human health.

Three key principles were established in these judgements. First, the Courts highlighted the importance of a high level of health protection in EU law. This is supported, for example, by the recognition of the right to health care Article 35 of the EU Charter on Fundamental Rights and the responsibilities of Member States in relation to consumer protection under Article 38⁶. Second, the Courts reasoned that the EU can legitimately adopt a precautionary principle in relation to the protection of public health, including in relation to trading rights and the internal market. Third, the European Court judgement recognises the legitimacy of public health exceptions to international trade rules and the importance and relevance of the DOHA Declaration 2001 on TRIPS and public health. The High Court of England and Wales further reasoned that the tobacco regulations are compatible with minimum standards of trade related intellectual property

⁶Article 35 states: "Health care - Everyone has the right of access to preventive health care and the right to benefit from medical treatment under the conditions established by national laws and practices. A high level of human health protection shall be ensured in the definition and implementation of all Union policies and activities". Article 38 states: "Consumer protection - Union policies shall ensure a high level of consumer protection".

rights (TRIPS) established by the World Trade Organisation (WTO) since these standard are not absolute and must be balanced with other competing public interests and can be derogated from on the grounds of public health (European Court of Human Rights, 2016, paras 86 and 157; High Court of England and Wales, 2016, paras 180–183, 256, 438–439, 915–916).

4.2.4 Public health approach to violence

Other key issues on the public agenda in the current period include the adoption of a public health approach to violence; the issue of compulsory vaccinations; and measures relating to the environment and pollution. A companion paper in this series examined increasing homicide and knife crime in the current period together with recent developments in relation to the adoption of a public health approach to violence based on the Scottish model (Cooper & Lacey, 2019). This is an approach which aims to improve health and safety through preventative measures aimed at the reduction of violence involving a range of different public and social services. In October 2018, the Home Secretary announced that he would adopt a public health approach to violent crime. However, the efficacy of this new approach and of new public health duties to address violence in the context of ongoing resource constraints affecting a range of the services involved – such as police, local government, schools, hospital services, youth offending teams and children’s services was widely questioned (Cooper & Lacey, 2019; Siddique, 2019).

4.2.5 Vaccinations

The issue of compulsory vaccination has also been moving up the public health agenda in the current period. The UK eliminated measles in 2017 but its measles free status was withdrawn by WHO in 2019 following outbreaks of measles. The National Audit Office reported in 2019 that there has been a general fall in uptake of pre-school vaccinations in England since 2012-13 and, in many cases, uptake of these vaccinations is below the Department’s performance standard (National Audit Office, 2019b). Outbreaks of measles have also been occurring in the US, and in April 2019 New York City declared a public health emergency and made vaccinations against measles mandatory in some areas. Health Secretary Matt Hancock said at the Conservative Party Conference in September 2019 that the Government could introduce a law to address declining vaccination rates and that there is a “strong argument” for making vaccinations such as measles mandatory for school children in England (Walker, 2019). There has also been recognition of the power and influence of social media in relation to anti-vaccine campaigns and vaccine denial. In September 2019, Facebook and Instagram announced that it would direct individuals

searching for information or using vaccine hashtags to information from international public health bodies such as WHO (Boseley, 2019).

4.2.6 Clean air

Several key assessments of the relationship between health and air pollution were published during the five-year period under examination. One study pointed to 40,000 deaths a year being attributable to exposure to outdoor air pollution and which links air pollution to cancer, asthma, stroke and heart disease, diabetes, obesity and dementia (Royal College of Physicians, 2016; c.f. Committee on the Medical Effects of Air Pollutants, 2018). A review by Public Health England estimated that the mortality burden of long-term exposure to air pollution is broadly equivalent to 28,000-36,000 deaths a year and concluded that there is strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory diseases and lung cancers and exacerbates asthma (Public Health England, 2019e). The need for public action to improve air quality is central to Public Health England's strategy for 2020-2025 (Public Health England, 2019h).

Until Brexit, the UK was required to meet EU clean air and pollution standards (Stewart et al., 2019). The implementation of the EU 2007 Air Quality Directive was monitored and enforced by the European Commission and in 2018 the UK was referred to the European Court of Justice for failing to meet nitrogen oxide limits. International targets to reduce emissions of five of the most damaging air pollutants (fine particulate matter, ammonia, nitrogen oxides, sulphur dioxide, non-methane volatile organic compounds) by 2020 and 2030 were set out in a 2016 EU Directive. These standards were recognised in the UK wide National Air Pollution Control Programme in 2019. The Government also adopted a clean air strategy for England (HM Government, 2019b) which set out the case for new goals to cut public exposure to particulate matter pollution and for new legislation and which made reference to the more ambitious WHO limits on fine particulate matter. Following the 2019 General Election, the Environment Bill was re-introduced in Parliament in January 2020 and includes a commitment to introduce a legally binding air pollution target on fine particulate matter and to strengthen local authority enforcement powers in relation to air quality. However, the Bill was criticised by campaigning groups for its continued ambiguity as to whether a legally binding commitment to meet the WHO particulate limit by 2030 would be included.

Judicial scrutiny of the adequacy of government action in relation to air quality also intensified. In addition to the referral to the European Court of Justice, there were several Court cases and judicial reviews. In December 2019, an Article 2 inquest to examine the circumstances of the death of teenage Ella Kissi-Debrah was allowed. The coroners ruling recognised that

there are grounds for arguing that the failure of the state to prevent loss of life through air pollution breached Ella's human right to life. The full hearing took place in 2020 (BBC, 2019a).

City-region devolution deals in new forms of local action on air quality, with Ultra Low Emission Zones introduced in London in 2019 and planned for Manchester in 2021.

4.3 Brexit

Politics was overwhelmingly focussed on Brexit until the pandemic struck in early 2020. The 'Brexit Bus' pledge of an extra £350 million a week for the NHS as a result of a leave vote in the 2016 referendum was of the most highly controversial political claims of the five year period under examination, with the idea of a Brexit dividend emphatically rejected by the Institute of Fiscal Studies (Pope, 2018; Levell & Stoye, 2018).

Debates about the impact of immigration, especially EU immigration, on public services had been an important dimension of the politics of Brexit during the five year period under examination, and were ongoing when the pandemic struck. Our companion paper on Brexit and social policy found no evidence of immigration putting pressure on health services including waiting lists, because on average migrants are younger and more healthy than the UK born population (Stewart et al., 2019). Evidence published in the 2017 Migration Advisory Committee report suggested that migrants were around half as likely to have a hospital admission as the general population, although maternity services provide an exception (reported in (Stewart et al., 2019; Steventon & Bardsley, 2011; Migration Advisory Committee, 2018)).

Modelling in a subsequent Migration Advisory Committee report examined the effects of introducing an Australian style points based immigration system, at different salary thresholds, including the effects on wages, welfare budget and public services. The modelling scenarios are retrospective and relate to fiscal year 2017/18 and examined what would have happened to pressures on public service if a points-based scheme had been in place at that time, taking account of demand side and workforce pressures. In relation to health, the Committee concluded that downward reduction in demand pressures would have outweighed upward increases in workforce pressures, resulting in an overall reduction in pressure on health services under a points based system. However, the assessment suggested that overall pressure on social care would have increased (Migration Advisory Committee, 2020; Burchardt et al., 2020b).

The UK left the European Union on 31st January 2020 with the transition period and negotiations for a UK-EU trade deal commencing, and a series of key issues about potential Brexit effects in health were being debated in the weeks running up to COVID-19. Holmes et al. (2019) noted that Government Yellow Hammer documents, which set out the 'reasonable worst case scenario' impact of a no-deal Brexit, included a risk of significant disruption to the supply of medicines as well as increased instability in the adult social care market.

Uncertainty in relation to EU citizens access to healthcare post Brexit was also an important concern on the eve of COVID-19 – with arrangements put into place whereby any EU citizen that was living in the United Kingdom, including the 165,000 EEA staff already working in health and social care, were able to apply for the EU settlement scheme. The 2019 Conservative Party Manifesto included plans for a new NHS VISA and this was confirmed in a Government statement on a post-Brexit points-based immigration system in February 2020. However, the social care sector (together with most other low skilled jobs) were excluded from the official occupation shortage list published at that time and concerns were expressed about the knock on effects of this decision for health as well as the direct adverse implications for social care. Home Secretary Priti Patel and others highlighted that UK inactive workers might fill this gap and identified that a radical upgrade in social care arrangements would be important, including in relation to working conditions, pay and productivity (c.f. Burchardt et al., 2020b).

More broadly, the decision to leave the EU without incorporating the EU Charter of Fundamental Rights meant that the protection of Article 35 and Article 8 of this instrument are no longer available in the UK (Roderick & Pollock, 2017; Stewart et al., 2019). During the five-year period under examination, this protection had played an important role in the context of legal challenges to tobacco regulation discussed above. Additionally, on the eve of the COVID_19 pandemic, a US trade deal seemed to be firmly on the agenda and while 2019 Conservative Party Manifesto guaranteed that the NHS would be off the table, concerns were being expressed that this would open up the NHS to US private sector competition and would adversely change NHS arrangements for pharmaceuticals. Concerns about the impact of opening up the NHS to international competition law had previously articulated during the TTIP negotiations (e.g. Coote (2014)) and the British Medical Association had proposed that competition and procurement provisions of the 2012 Health and Social Care Act should be repealed in advance of the negotiation of a US trade deal to prevent

requirements for competitive tendering to be extended to US companies (British Medical Association, 2017, 2018; Stewart et al., 2019).

4.4 The health policy agenda on the eve of COVID-19

4.4.1 Key issues raised by the Coalition's health reforms on the eve of the pandemic

The efficacy of three key aspects of the Coalition's reform programme were being questioned and debate at the end of the period under observation, prior to the onset of the COVID-19 pandemic. These were: rules around competition, commissioning and procurement (including the future role of Monitor) and the future of the autonomous / independent status of the NHS; arrangements for public and preventative health and the failure to deliver on the major 'bottom up' drive on preventative health and health inequalities health that had been foreseen in the Coalition's reform programme; and the overall framework for accountability and responsibility for improving health outcomes and reducing health inequalities, which were increasingly viewed as too weak.

Legislative barriers to integrated care and operational independence of the NHS

One aspect of the Coalition's health reform programme that came under increasing scrutiny between the General Election in May 2015 and the eve of the COVID-19 pandemic in early 2020 related to the role of competition within the NHS. The question of whether some of the competition provisions established by the Health and Care Act (2012) were functioning as a barrier to the collaborative partnerships and practices that underpin health and care integration moved up the health and political agendas during the five-year period under examination. A consensus emerged amongst bodies such as the Health and Social Care Select Committee, NHS England and the National Audit Office that the operation of some aspects of these rules had been a barrier to the rolling out of integrated health and care models; and when COVID-19 struck in early 2020, the Johnson Government had signalled its intention to introduce legislative reform in this area.

As noted in section 3.2, the 2017 Conservative Manifesto committed the May administration to addressing legislative barriers to integration. A key report supported the case for integrated, collaborative, place-based care over the current 'siloed, autonomous and competition arrangements imposed by the Health and Social Care Act 2012" and made the case for legislative change including in relation to the development of system wide partnerships, procurement and competition (House of Commons Health and Social Care Select Committee, 2018). The NHS Long-Term Plan also

expressed opposition to future top-down healthcare reform while highlighting the need to eliminate legislative barriers to integration. Against a background of a growing number of formal and informal partnerships and mergers (such as mergers of CCGs, new integrated care models, and proposals for integrating NHS England and NHS Improvement), the role of Monitor and anti-merger measures were identified as particular obstacles to the place-based commissioning and provision envisaged in the NHS Long Term Plan. The importance of reviewing competitive procurement requirements in order to enable more discretion was also highlighted (NHS England & NHS Improvement, 2019).

In September 2019, NHS England and NHS Improvement published joint proposals to eliminate legislative barriers to integration. The proposals involved major changes to the operation of competition, commissioning and procurement and were also intended to put the new integrated care systems onto a legal footing. Recommendations to Government and Parliament for an NHS Bill were published in September 2019 (NHS England and NHS Improvement, 2019). These underlined the importance of a 'targeted Bill' as opposed to a 'wholesale administrative' re-organisation'.

"An NHS Bill should be introduced in the next session of Parliament. Its purpose should be to free up different parts of the NHS to work together and with partners more easily. Once enacted, it would speed implementation of the 10- year NHS Long Term Plan...We now have a clear and strong consensus about what this Bill should and should not contain...The Competition and Markets Authority's (CMA) roles in the NHS, as provided for by the Health and Social Care Act 2012 (2012 Act), should be repealed. There is strong public and NHS staff support for scrapping section 75 of the 2012 Act and for removing the commissioning of NHS healthcare services from the jurisdiction of the Public Contracts Regulations 2015. Taken together, these changes would remove the presumption of automatic tendering of NHS healthcare services over £615k. Monitor's specific focus and functions in relation to enforcing competition law should also be abolished" (NHS England and NHS Improvement, 2019, p. 3).

On the eve of the pandemic, these developments were prompting media speculation that key elements of the Coalition's health reform package relating to competition and the role of Monitor, the role of local Government and the future of Health and Wellbeing Boards were likely to be reformed. The proposals set out in the 2019 NHS Longterm plan prompted the Chief Executive of the Nuffield Trust think tank to suggest that a "significant unpicking" the Lansley reforms was on the cards (Triggle, 2019a). The future of the autonomous status of NHS bodies under the reformed arrangements was similarly already subject to speculation on the eve of the pandemic, with the future of arms-length bodies and their flexibility and efficacy in times of crisis emerging as a key issue when COVID-19 struck.

“Bottom up” arrangements for driving public and preventive health and health inequalities

The effectiveness of the new “bottom up” arrangements for driving public and preventative health and reducing inequalities that had been brought about by the Coalition’s health reform programme also continued to come under scrutiny after the May 2015 General Election.

While the Coalition’s reforms had envisaged a new role of local government in spearheading the promotion of good health and reducing health inequalities in their areas, early evaluations had questioned the effectiveness of the new Health and Wellbeing Boards in driving forward this agenda. Vizard and Obolenskaya (2015) reviewed some of the early assessments. Humphries and Galea (2013) concluded that the new bodies were successfully set up but in danger of becoming a side show. On the question of localism, National Audit Office (2014b) concluded that while local autonomy has certain advantages, it also has risks. The Coalition’s public health reforms reflected the idea that local authorities are best placed to make decisions about the best way to promote public health for their local populations, while the health premium aimed to incentivise local public health action. However, the National Audit Office raised concerns that local authority spending would not be fully aligned to areas of public health concern identified by Public Health England, while the autonomy of local authorities provided no guarantee that Public Health England could secure improvements in specific outcomes (National Audit Office, 2014b: 5). As noted above in section 2.1.1, other reservations included a possible lack of co-ordination and alignment of central and local public action and whether local authorities had been given the range of powers and policy levers necessary to spearhead the delivery of preventative health and to reduce health inequalities (c.f. Vizard and Obolenskaya 2015).

Following on from the 2015 General Election, in 2017, an assessment of Public Health England was positive while highlighting the impact of budgetary cuts and raising concerns relating to the integration with local partners (IANPHI, 2017). Katikireddi et al (2017) identified that in principle the devolution of power could result in improvements in public health and better health outcomes by encouraging innovation and mutual learning. In principle, the new arrangements brought about by the Health and Care Act 2012 meant that local authorities and the new Health and Wellbeing Boards control resources and have responsibilities and powers to adopt innovative and appropriate measures at the local level to promote public health and tackle health inequalities. However, while an assessment identified some instances of good practice, the study concluded that the new Boards had failed to spearhead and deliver a new bottom-up process of health care improvement or reduced health inequalities.

Other assessments cast further doubt on the role and capacity of Health and Wellbeing Boards in driving the preventative and health inequalities agenda. In 2018, an evaluation of the leadership role of Health and Wellbeing Boards concluded that many of these bodies had yet to position themselves as a key strategic forum for driving the health and wellbeing agenda and remained a case of 'work in progress'. While still having the potential to become the "beating heart" of the health system, they were at a cross-roads with two future scenarios ahead: the first, being revisited and re-constituted to deliver place-based population health in local areas, and the second, being superseded by Sustainability and Transformation Partnerships and Accountable Care Systems (Hunter et al., 2018) (c.f. 0.1). Humphries (2019) concluded that it was not clear how Health and Wellbeing Boards and the statutory duty to produce joint needs assessment for areas related to the proposals for legislative reform of the NHS that had been set out in the NHS Longterm Plan in early 2019 (NHS England and NHS Improvement, 2019). In early 2020, on the eve of the pandemic, the future relationship between the existing health and wellbeing boards and the broader bodies envisaged as a basis for the geographic footprints for integrated care remained unresolved (c.f. 0).

In early 2020, the Marmot Ten-Years-On Review (2020) identified some areas of progress relating to local government, public health and the reduction of health inequalities. The Review identified local areas where there had been innovation with increased emphasis on the preventative agenda and increased awareness and prioritization of health inequalities and social determinants of health (2020: 6). Exemplars of local good practice models for implementing the social determinants approach to public health identified in the Review included Coventry and Greater Manchester, where innovative policies were taken forward in the context of new city-region devolution deals (c.f. 4.2.5).

Overall accountability and responsibilities for health inequalities

Another key area where the Coalition's reforms were being questioned prior to the pandemic relates to the overall arrangements that were put into place for responsibility and accountability for improving health outcomes and reducing inequalities. As discussed in section 2.2, the Health and Care Act (2012) Act put into place an overall system of statutory duties which aimed to ensure overall political accountability and responsibility for improving health outcomes and reducing health inequalities. The cascading nature of these statutory duties - which applied to the Secretary of State as well as to bodies such as NHS England, Public Health England, CCGs and Health and Wellbeing Boards - was intended to ensure that these goals are both at the top of the political agenda and provide the framework for the operation of autonomous health bodies with the central objectives of

improving health and reducing health inequalities mainstreamed into all aspects of their work.

Following on from the 2015 General Election, the strategic direction of NHS England was shaped by the Five Year Forward View plan which had been published by NHS England in 2014. This identified the importance of addressing key health challenges such as obesity and reducing health inequalities as key objectives for the period. Indeed, delivering on these objectives was identified as of strategic importance for the broader sustainability of the NHS – in terms of controlling health need and the demand side and driving the efficiency savings that were central to the five year forward view plan. Additionally, during the five-year period under examination, inequalities were mainstreamed in the work of Public Health England. Outcomes-orientated health monitoring frameworks such as the NHS Outcomes Framework, the Public Health Outcomes Framework and the CCG Outcomes Framework were developed and embedded and these were increasingly disaggregated by deprivation indicators and protected characteristics, with Public Health England also monitoring wider social determinants of health through the public health outcomes system.

However, during the five-year period under examination, there were growing concerns that the arrangements that had been put into place to drive system wide accountability and responsibility for improving health outcomes and eliminating health inequalities were inadequate. In early 2020, the Marmot Ten-Years-On Review (2020) concluded that health inequalities had not been prioritised and that the drivers of change - including data driven systems for monitoring health inequalities and delivering policy measures to ensure their elimination – were too weak. The Review called for the strengthening of overall arrangements for responsibility and accountability for health inequalities and the specification of time-bound targets.

4.4.1 Key strategic plans in place on the eve of COVID-19

Two key strategic plans setting out plans for NHS England and Public Health England for the 2020s were published towards the end of the five-year period under examination and prior to COVID-19. A new NHS Longterm Plan was jointly published by NHS England and NHS Improvement in January 2019 (NHS England and NHS Improvement, 2019). This set out ambitions for the upcoming period relating to integrated care, to expand primary care and preventative health, to parity of esteem for mental health and to better address dementia and Alzheimer’s disease. Some of these ambitions (such as integrated care) reflected the failure to make greater

progress and to meet the ambitions set out in the Five Year Forward View plan that was published in 2014 but were not fully implemented by early 2019 (including, for example, ambitions related to integrated care). In 2019, Public Health England published its strategy for 2020-2025. This set out an ambitious national agenda for the period 2020-25 relating to preventative health (obesity, smoking, diet, clean air, vaccination rates) as well as mental health and infectious diseases (Public Health England, 2019h). However, while an interim workforce plan was published in 2019 a more detailed full workforce plan had been due in late 2019, after the Comprehensive Spending Review, but had not been published on the eve of the pandemic (c.f. section 6.2). Moreover, on the eve of COVID-19, a major and comprehensive cross-governmental health inequalities strategy of the kind called for by many health experts had not been put into place.

5. Expenditure

In this section we examine trends in expenditure on health under the three Conservative majority governments that were in power between May 2015 and early 2020, when the COVID-19 pandemic struck. We begin by examining trends in real public expenditure on health in the UK (section 5.1). We then look at trends by devolved country (section 5.2) and in more detail at the breakdowns of the health budget in England (section 5.3). Next, we compared trends in expenditure with simple indicators of need and demand (section 5.4). Finally, we examine trends in total (public and private) expenditure on health (5.5) and compare trends in the share of national wealth and spending per capita on health in the UK with that in other comparator countries on the eve of the pandemic (section 5.6).

Key findings (expenditure)

- Real public sector expenditure on health in the UK increased at a somewhat faster rate during the five-year period between the May 2015 General Election and early 2020 (the eve of the COVID-19 pandemic) than under the Coalition between 2010 and 2015.
- Nevertheless, austerity and the resources squeeze nevertheless continued after the 2015 General Election.
- Following on from the exceptionally low rates of public real public expenditure on health under the Coalition between 2010 and 2015, this meant that there was exceptionally low spending during the second decade of the 21st century as a whole, with annual average rates of increases that were substantially below the historical average and with average annual increases in real and volume public expenditure failing to keep pace with increases in simple indicators of need and demand.
- In England, following on from the 2015 'relative protection' of the NHS budget was combined with cuts in other elements of spending, including cuts to public health. While expenditure on mental health increased relative to other areas of the NHS England budget, the proportion spent on out-of-hospital care failed to increase.
- Public expenditure on health continued to be mainly financed through general taxation and national insurance, and charging in general remained low, although revenue from car parking and charges raised through the immigration health surcharge increased.

- Government financed expenditure as a share of total (public and private) health expenditure remained relatively high on the eve of the pandemic, and spending on private health insurance relatively low, although out-of-pocket spending did increase during the 2010s.
- Total (public and private) expenditure on health as a share of GDP was just above the EU-14 average at about 10% on the eve of the pandemic (in 2019). However, looking at per capita spend in 2019 (in \$PPPs), the UK was second lowest in the G7 and lagged behind several comparator countries including France and Germany by a considerable margin, when the global COVID-19 pandemic struck.

5.1 Trends in real public expenditure on health

5.1.1 Trends in public expenditure on health in the UK

The broadest official measure of current public expenditure on health in the UK from the Public Expenditure Statistical Analysis (PESA) framework is published annually by HM Treasury (2019b) and covers the UK as a whole. The framework is based on National Accounts classifications and the definition of public sector expenditure on health in the UK includes spending by the devolved administrations and local government as well as public sector capital spending. Based on this definition, real public sector expenditure on health in the UK increased by 12% in real terms between 2014/15 and 2019/20⁷ from £143.6 billion to 160.9 billion (Table 6 online appendix, 2018/19 prices).

Note that the year-on-year increase in health spending in 2019/20 (5.2%) was substantially higher than in any other single year during the second decade of the 21st century. This large increase in 2019/20 primarily reflects the impact of the first year of the uplift in expenditure that resulted from the new financial settlement for NHS announced by Prime Minister Theresa May in July 2018 (on which, see sections 3.4 and 5.2.1) rather than the impact of emergency health funding associated with the COVID-19

⁷ In this paper, we take financial year 2014/15 to be the last year of Coalition government administration and we take it as the base year for estimating the changes in funding. Change in real terms spending for Conservative government is taken as from 2014/15; annual average growth rates of funding from 2014/15 to 2019/20 means averaging across growth rates in years starting with growth between the financial year 2014/15 and 2015/16 and growth between the financial years 2018/19 and 2019/20.

pandemic announced in March 2020.⁸ As a result of the uplift, spending under the Boris Johnson government (2018/19-2019/20) increased by 5.2% – a higher rate than was recorded under Cameron (2014/15 - 2016/17) and Theresa May (2016/17 - 2018/19) – both increasing at 1.6% per year (Table 1).

Nevertheless, real public sector expenditure on health in the UK only increased by an annual average of 1.6% each year over the period preceeding the new financial settlement (between 2014/15 and 2018/19) and by 2.3% over the entire five year period under examination (2014/15 and 2019/20). Therefore, whether we include 2019/20 – the year of the uplift – or not, average annual real terms increases in health spending were substantially lower during this period than the historical annual average rate of increase of 4.4% a year (1955/56 to 2009/10). Moreover, looking at the second decade of the 21st century as a whole, rates only increased by an annual average of 1.7 each year between 2009/10 and 2019/20, compared to annual average increases of 6.6 per cent during the first decade of the 21st century (1999/00-2009/10).

In per capita terms, the average increase in real public sector expenditure on health in the UK was 0.9 per cent per annum between 2014/15 to 2018/19 and 1.6 per cent per annum between 2014/15 and 2019/20 (taking account of the financial uplift in 2019/20). Both average rates of increase were substantially lower than the average of 5.5 per cent per annum recorded under the Labour administrations between 1996/97 and 2009/10, but greater than the rates recorded under the Coalition between 2009/10 and 2014/15, when health spending only increased at an average rate of 0.4 percent per year (see Table 6 online appendix).

⁸ We use figures from PESA publication released in July 2020, which covers the outturns to end of March 2020 (financial year 2019/20). While the COVID-19 pandemic would have affected expenditure across government departments in 2020, its impact on spending to end of March 2020 is likely to be relatively limited and the outturns for 2019/20 within that PESA publication were not significantly impacted by additional expenditure (for more details, see footnote 12 in Vizard et al (2021)). In this paper, we therefore consider PESA spending to 2019/20, inclusive, to represent public expenditure on the eve of the pandemic.

Table 1 Average real annual increases in public sector expenditure on health by political administration (United Kingdom), 1954/55 to 2019/20

		Average annual increases (%)	
Historical	1955/56 to 2009/10	4.4	
First decade of the 21st century	1999/00-2009/10	6.6	
Second decade of the 21st century	2009/10-2018/19	1.3	
Second decade of the 21st century	2009/10-2019/20	1.7	
Conservatives	1978/79-1996/97	3.1	
	Thatcher (1978/79 - 1982/83)		2.7
	Thatcher (1982/83 - 1986/87)		2.1
	Thatcher/Major (1986/87 - 1991/92)		3.3
	Major (1991/92 - 1996/97)		4.1
Labour	1996/97 - 2009/10	6.0	
	Blair (1996/97 - 2000/01)		4.9
	Blair (2000/01 - 2004/05)		9.0
	Blair / Brown (2004/05 - 2009/10)		4.6
Conservatives/Liberal Democrats Coalition	Cameron - Clegg (2009/10 to 2014/15)	1.1	
Conservatives	2014/15 - 2018/19 (before the effects of the new NHS financial settlement announced in July 2018)	1.6	
	2014-15 to 2019/20 (including the uplift brought about by the NHS financial settlement announced in July 2018)	2.3	
	Cameron (2014/15 - 2016/17)		1.6
	Theresa May (2016/17 - 2018/19)		1.6
	Johnson (2018/19 - 2019/20)		5.2

Source: Authors' calculations of real terms average growth in expenditure using nominal expenditure figures on NHS (Harker, 2012) for years up to and including 1996/97; and UK total expenditure to 2018-19, which includes spending on the NHS, but also medical research, devolved administrations and local government spending on health, excluding capital spending from HM Treasury (2019b), table 4.2. Nominal expenditure for 2019-20 is from HM Treasury (2020). Real terms figures are calculated using using (HM Treasury, 2019a).

Notes: Annual growth rate: authors' calculations using arithmetic mean and real terms expenditure figures

5.1.2 Expenditure, need and demand

In order to compare broad trends in public expenditure in health with broad trends in need and demand, in this section, we compare annual increases in real and volume public expenditure with several simple indicators of need and demand: population growth, growth in the older population aged 65 and above, growth in the 'oldest of the old' (the population over 85), growth in GDP and growth in real disposable income.

Overall, the average annual increase in real public expenditure on health in the UK, whether we look at the period preceeding the new financial settlement for NHS (to 2018/19) – 1.6% a year, or including it (to 2019/20) – 2.3% a year, was at the lower end of the spectrum of what is estimated as necessary to keep pace with need and demand pressures. On the eve of the pandemic, estimates of what would be necessary to keep up with increases in need and demand ranged from about 1.5 per cent per annum to keep pace with demographic pressures alone to 3-5 per cent taking into account technological and medical advances and broader need pressures (e.g. see Charlesworth et al., 2018; Stoye, 2017).

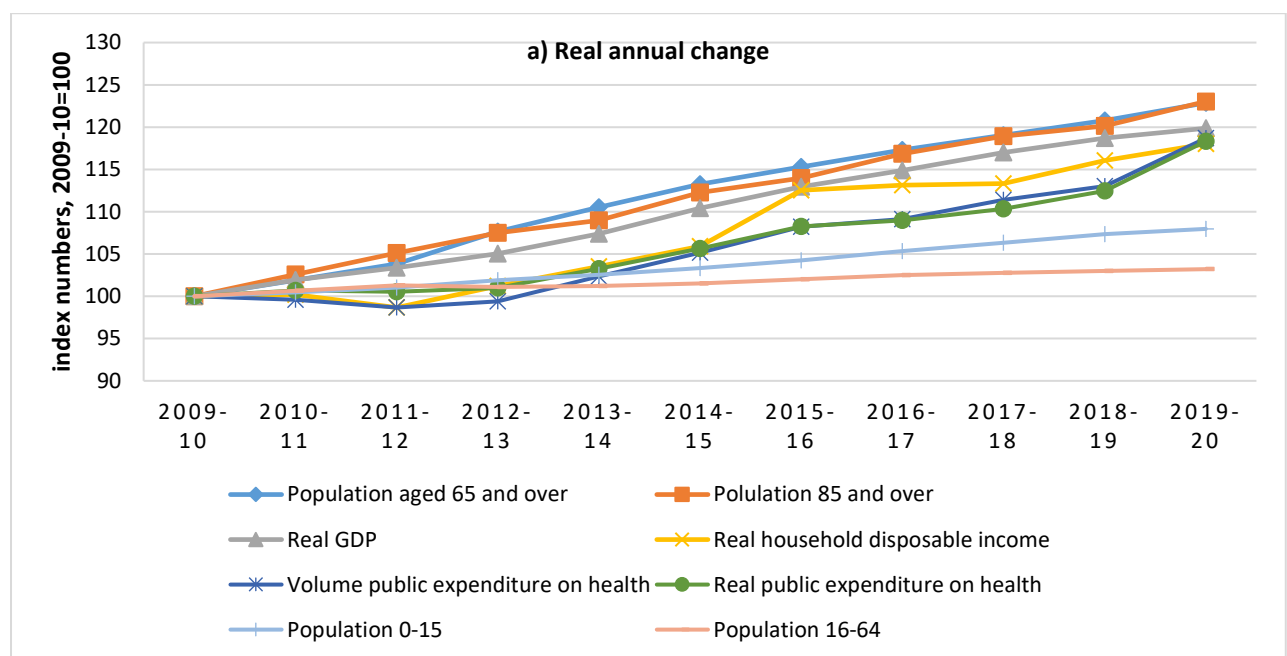
Looking back to the first decade of the 21st century, the growth in both real and volume public expenditure on health in the UK outstripped simple indicators of need and demand (for example, the increases in the general population, the over 65s and the over 85s, and the increases in GDP and household disposable income) by a considerable margin (Figure 69 online appendix). However, we reported in our previous paper that growth in volume expenditure under the Coalition (between 2009/10 and 2013/14) were below the extremely modest rates of growth in real GDP and real disposable income, as well as being below the increases in the population aged 65 and above, and the population aged 85 and above. Volume growth per capita during this period was also below real growth per head, real GDP growth per head and real growth in disposable income per head (Vizard and Obolenskaya 2015).

Trends during the five-year period under examination in this report were somewhat more positive in that the growth of real and, particularly, volume expenditure on health were just faster than growth in both real GDP and household disposable income between 2014/15 and 2019/20 when the data points for 2019/20 are taken into account. This trend was mirrored in the per capita equivalents of each indicator. Again taking account of the 2019/20 data point, growth in both volume and real terms spending on healthcare in the UK was also more rapid than growth in the general

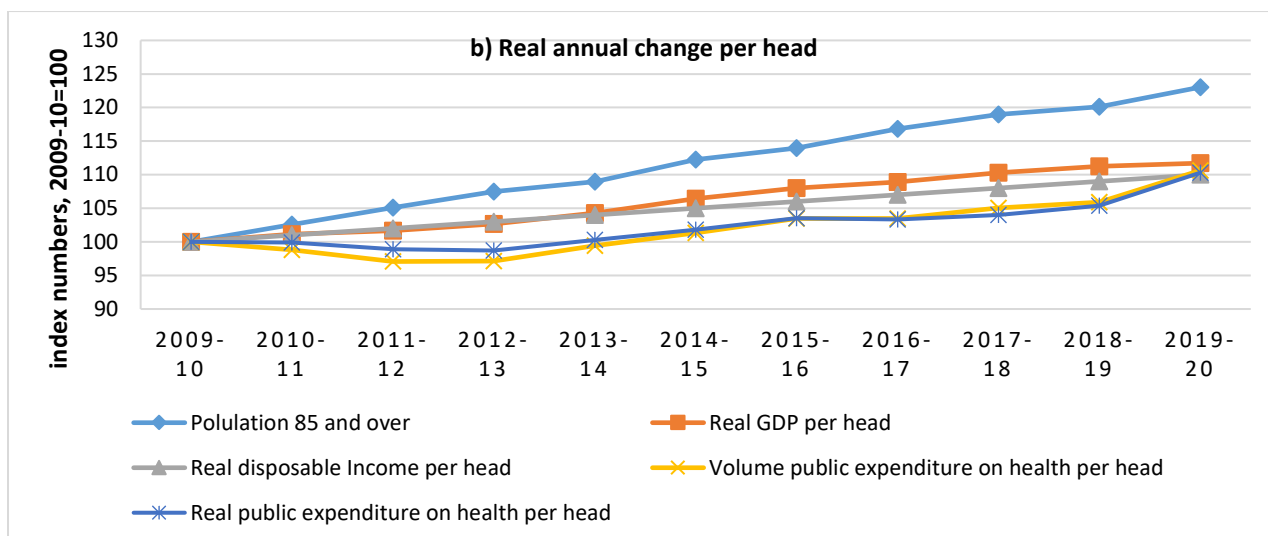
population and the older populations (65 and over, 85 and over) (Figure 70 online appendix)⁹.

Nevertheless, without taking into account the 2019/20 data point, the increases were considerably slower. Moreover, looking at trends during the second decade of the 21st century as a whole, the overall picture is that the increases in real public expenditure on health in the UK has failed to keep up with simple indicators of need and demand. Between 2009/10 and 2019/20, real public sector expenditure on health in the UK grew at a similar rate to real disposable income but slower than real GDP and the older populations aged 65 and above and 85 and above. Volume public sector expenditure on health grew slightly more over the period since 2009/10, but still slower than the growth in GDP and older population. The trends were similar on a per capita basis (Figure 7).

Figure 7 Annual change in real and volume public expenditure compared with simple indicators of demand and need (UK, 2009/10 - 2019/20)



⁹We have repeated this exercise using separate data for England, with expenditure figures from the budgeting framework measures of NHS England spending. Using outturn expenditure figures from the budgeting framework for years 2014/15 to 2018/19, Figure 68 (online appendix) shows that both real and volume expenditure growth (as well as associated per head spending growth) outstripped growth in the general and older populations.



Source: Authors' calculations using nominal figure from HM Treasury (2019b) and HM Treasury (2020). Real terms figures are calculated using deflators from HM Treasury (2019a). Household disposable income - total and per head - are chained volume measures and are from ONS (2020r, 2021g) and represent calendar years i.e. 2019-20 amount is for calendar year 2019. Population figures are from mid-year population estimates by ONS (2021f). Authors calculations of volume expenditure using two different indices: HCHS index for years 2009-10 to 2014-15 and the NHS cost inflation index (NHSCII) for years 2015/16 to 2019/20 from Curtis and Burns (2020).

5.1.3 Trends in public expenditure on health within the constituent countries of the UK

Figures for the total identifiable public expenditure on health within each of the constituent countries of the UK are reported within PESA on a consistent basis for 5-year periods. We therefore show spending by country for the period between 2015/16 and 2019/20 and, to include 2014/15 totals, for the period 2014/15 to 2018/19 in Table 2 below. For both periods, the growth rates in total expenditure and expenditure per capita were lower in England compared to Wales and Northern Ireland and higher than in Scotland, with an exception of per person spending between 2014/15 and 2018/19 when England's growth was similar to that in Scotland (see Table 2; see Table 7 in Online Appendix for previous years). This is in contrast to the patterns within the Coalition period, when annual growth in expenditure and expenditure per head in England was higher than in Scotland and Wales (but not Northern Ireland) (Vizard & Obolenskaya, 2015).

Table 2 Growth in real total and per capita public expenditure on health in England, Wales, Scotland and Northern Ireland, 2014/15 to 2018/19 and 2015/16 to 2019/20 (2018/19 prices)

a) 2015-16 to 2019-20

	Identifiable expenditure on health (£m)				Identifiable expenditure per head (£)			
	England	Scotland	Wales	Northern Ireland	England	Scotland	Wales	Northern Ireland
2015/16	122,683	12,890	7,003	4,286	2,239	2,399	2,260	2,315
2016/17	122,693	13,090	7,220	4,338	2,220	2,422	2,319	2,330
2017/18	124,378	12,958	7,349	4,390	2,236	2,389	2,351	2,346
2018/19	127,051	13,023	7,537	4,582	2,270	2,395	2,401	2,435
2019/20	133,950	13,428	7,870	4,856	2,379	2,458	2,496	2,565
	Annual growth in total identifiable expenditure on health (%)				Annual growth in identifiable expenditure on health per head (%)			
	England	Scotland	Wales	Northern Ireland	England	Scotland	Wales	Northern Ireland
2015/16								
2016/17	0.0	1.6	3.1	1.2	-0.8	0.9	2.6	0.6
2017/18	1.4	-1.0	1.8	1.2	0.7	-1.3	1.4	0.7
2018/19	2.1	0.5	2.6	4.4	1.5	0.2	2.1	3.8
2019/20	5.4	3.1	4.4	6.0	4.8	2.6	4.0	5.3
Average annual growth 2015/16 to 2019/20	2.2	1.0	3.0	3.2	1.6	0.6	2.5	2.6
Total growth 2015/16 to 2019/20	9.2	4.2	12.4	13.3	6.3	2.4	10.4	10.8

b) 2014/15 to 2018/19

	Identifiable expenditure on health (£m)				Identifiable expenditure per head (£)			
	England	Scotland	Wales	Northern Ireland	England	Scotland	Wales	Northern Ireland
2014/15	119,546	12,415	6,900	4,188	2,201	2,322	2,231	2,276
2015/16	122,683	12,890	7,003	4,286	2,239	2,399	2,260	2,315
2016/17	122,693	13,090	7,220	4,338	2,220	2,422	2,319	2,330
2017/18	124,351	12,984	7,353	4,392	2,235	2,393	2,353	2,347
2018/19	127,032	13,030	7,538	4,585	2,269	2,396	2,402	2,436
	Annual growth in total identifiable expenditure on health (%)				Annual growth in identifiable expenditure on health per head (%)			
	England	Scotland	Wales	Northern Ireland	England	Scotland	Wales	Northern Ireland
2014/15								
2015/16	2.6	3.8	1.5	2.4	1.7	3.3	1.3	1.7
2016/17	0.0	1.6	3.1	1.2	-0.8	0.9	2.6	0.6
2017/18	1.4	-0.8	1.8	1.2	0.7	-1.2	1.5	0.7
2018/19	2.2	0.4	2.5	4.4	1.5	0.1	2.1	3.8
Average annual growth 2014/15 to 2018/19	1.5	1.2	2.2	2.3	0.8	0.8	1.9	1.7
Total growth 2014/15 to 2018/19	6.3	4.9	9.3	9.5	3.1	3.2	7.7	7.0

Source: Authors' calculations using HM treasury figures. Nominal figures, including per capita, are from HM Treasury (2020) and HM Treasury (2021) Tables 9_11 and 9_15; Real terms figures are calculated by the authors using HM Treasury (2019a) GDP deflators, expressed in 2018/19 prices.

Notes: consistent time series of expenditure by country and function (health) is produced by HM Treasury for each 5-year period. Expenditure for years 2014/15 to 2018/19 is therefore presented on a comparable basis, and so is expenditure for 2015/16 to 2019/20.

5.2 Trends and breakdowns of public expenditure on health in England

5.2.1 The plans set out in the 2015 Spending Review

The 2015 Spending Review stated that NHS England would receive £10 billion per annum more in real terms by 2020/21 than in 2014/15. The £10b figure was presented in the November 2015 Spending Review as £2 billion uplift on 2015 Conservative Party Manifesto commitments and the figure necessary to fund the plans set out in the Five Year Forward View by NHS England. However, the plans implied an average growth rate of just 1.6% for the period 2014/15-2020/21, with rates of 1.8% for the period 2014/15-2018/19, declining to 1.1% between 2018/19 and 2020/21 (Table 8 and HM Treasury (2015))¹⁰. These plans relied on massive efficiency savings in order to avoid the opening up of a substantial funding gap by 2021, and there was a litany of warnings that the resources being allocated to health were insufficient to meet need and demand. Similar warnings were expressed in the run up to the 2017 Budget¹¹.

The 2015 Spending Review figures were controversial not only because of the low rates of growth they implied, but because they used the NHS England budget for the planned expenditure instead of DHSC total. A response to the 2015 Spending Review by Nuffield Trust, The Health Foundation and the King's Fund noted that "[t]he figures announced (in the 2015) Spending Review rely on a significant change in the interpretation of NHS spending. Previous governments have defined this as the totality of

¹⁰The figures here refer to real terms increase in 2015/16 prices.

¹¹In the lead up to the 2017 Autumn Budget, it was estimated that by 2018/19 there will be a £4bn funding gap. (The King's Fund et al., 2017). These estimates were calculated using the NHS long-term trends spending, using future spending by the OBR as well as OBR's projections of efficiency savings, capital investment and the costs of pay increases (ibid.). In the 2017 Budget extra £6.3bn was announced for NHS: £2.8bn revenue funding and £3.5bn – capital (The King's Fund et al., 2017). This was assessed as falling short of the minimum amount required to close the gap in funding by 2018/19 – and just over £2bn gap would still remain in 2018/19, with warnings that "NHS next year will not be able to maintain standards of care and meet rising demand for services" (The King's Fund et al., 2017, p. 3). IFS analysis in 2018 based on forecasts at the time suggested that in 2019-20 the spending of DH on English healthcare will be slightly below the amount needed just to maintain spending per person at 2009-10 levels when the growth and ageing population were taken into account (Stoye, 2017, fig. 5)

the Department of Health's budget, worth £116.4 billion in 2015/16. However, this Spending Review effectively redefines NHS spending to mean NHS England's budget only" (Nuffield Trust et al., 2015). As we examine below, while the NHS England budget has increased during the current period, other elements of the departmental budget, including public health, education and training, and the capital budget, were not protected in the same way. This practice of restricting protection of public expenditure on health to the NHS England budget, while other elements of health spending were declining and cut, resulted in an intervention by the UK Statistics Authority, highlighting public confusion over budgetary announcements for health and calling for greater clarity and transparency (Campbell, 2016).

The new financial settlement for the NHS announced by Theresa May in July 2018 at the time of the NHS 70th anniversary resulted in a new set of plans with substantially higher implied growth rates than those set out in 2015. May announced that the NHS budget would increase by £20.5bn in real terms by 2023/24 compared with 2018/19 budget, equivalent to a real terms increase of 3.4% between 2019/20 and 2023/24 (PM speech on the NHS, 2018). The settlement was subsequently confirmed in the October 2018 budget, which referred to a cash increase for the NHS of £33.9 billion a year by 2023/24 compared to 2018/19 budgets (HM Treasury, 2018) and implied a real terms average growth rate of 3.6% for the period of 2018/19 to 2020/21 and 3.4% for the period up to 2023/24. Including the additional £1.25 billion pension funding from 2019/20 further increases the average annual rates of expenditure on the NHS over the period 2018/19 to 2020/21 to 4.1% and for the period 2018/19 to 2023/24 to 3.6% (HM Treasury, 2018) (see Table 9 online appendix)¹². The planned profile of annual increases at that time implied real terms growth of 4.6% in 2019/20, 3.6% in 2020/21, 3.2% in 2021/22, 3.3% in 2022/23 and 3.4% in 2023/24 (Table 9 online appendix). Reconfirmations and restatements of the settlement were made in an Oral Statement by the Secretary of State in January 2019 (Secretary of State's Oral Statement on the NHS Long Term Plan, 2019); the September 2019 Spending Round (HM Treasury, 2019d)¹³ and the Conservative Party Manifesto 2019 (Conservative Party, 2019).

¹² Authors' calculations using nominal funding amounts with pensions funding from the Spending Review 2018 reported by the Department of Health and Social Care et al (2018) and GDP deflators by OBR (2018) – the deflators used in the Spending Review 2018

¹³ Additionally, in March 2019, the Department of Health and Social Care confirmed that the employer contribution rate for the NHS England Pensions scheme would rise to £2,851 billion (cash) a year (Department of Health and Social Care, 2019c).

In late 2019 (revised) plans were set out in 2019 Spending Round and at that time, the planned real terms NHS funding was set to increase by an average annual figure of 3.7% (or £36.9bn in nominal terms) between 2018/19 and 2023/24¹⁴. The real terms planned increase in spending for 2019/20 was specified as 6.1%, including pensions uplift (ibid.).

5.2.2 Total DHSC budget

Taking the Departmental budget as a whole¹⁵, including the NHS budget and the amounts which lie outside the NHS, such as capital and Public Health budgets, the total spending by DHSC¹⁶ grew steadily, albeit relatively slowly, between 2014/15 and 2018/19, before the effects of the new NHS financial settlement fed through. The 2019/20 departmental

The nominal NHS RDEL announced at the 2019 Spending Round were £123.7 billion for 2019/20 and £129.9 billion for 2020/21. These are almost identical to the amounts recorded two months earlier by the Department for Health and Social Care annual report with the difference of £0.1 billion for the 2019/20 figures.

¹⁴ Authors' calculations using nominal NHS RDEL figures from the Department for Health and Social Care (2019) and adjusting them to 2018-19 prices using GDP deflators from HM Treasury (2019b).

¹⁵ This section uses an alternative way of reporting trends in real expenditure on health within PESA to that adopted in the previous section, based on the budgeting framework (total Departmental Expenditure Limits, or TDEL). TDEL is the spending that is planned on a multi-year basis and is allocated at Spending Reviews. This expenditure can be thought of as central government spending by departments on the delivery and administration of public services. It is split into resource (RDEL) and capital (CDEL) budgets. This system of reporting corresponds to that used in the Department of Health and Care Annual Report and includes resources allocated to NHS England as well as to other areas of health spending in England (public health, health education and training, and capital expenditure) (for details, see Figure 66 online appendix). In 2018/19, the Department allocated revenue funding covering day to day expenditure stood at £125.9 billion, and capital funding (covering infrastructure including hospital building and IT) at £6.0 billion. Whilst DHSC is also responsible for securing funds for adult social care, funds for this are allocated directly to the Ministry of Housing, Communities and Local Government (MHCLG) who allocate resources to local authorities which are responsible for providing adult social care services.

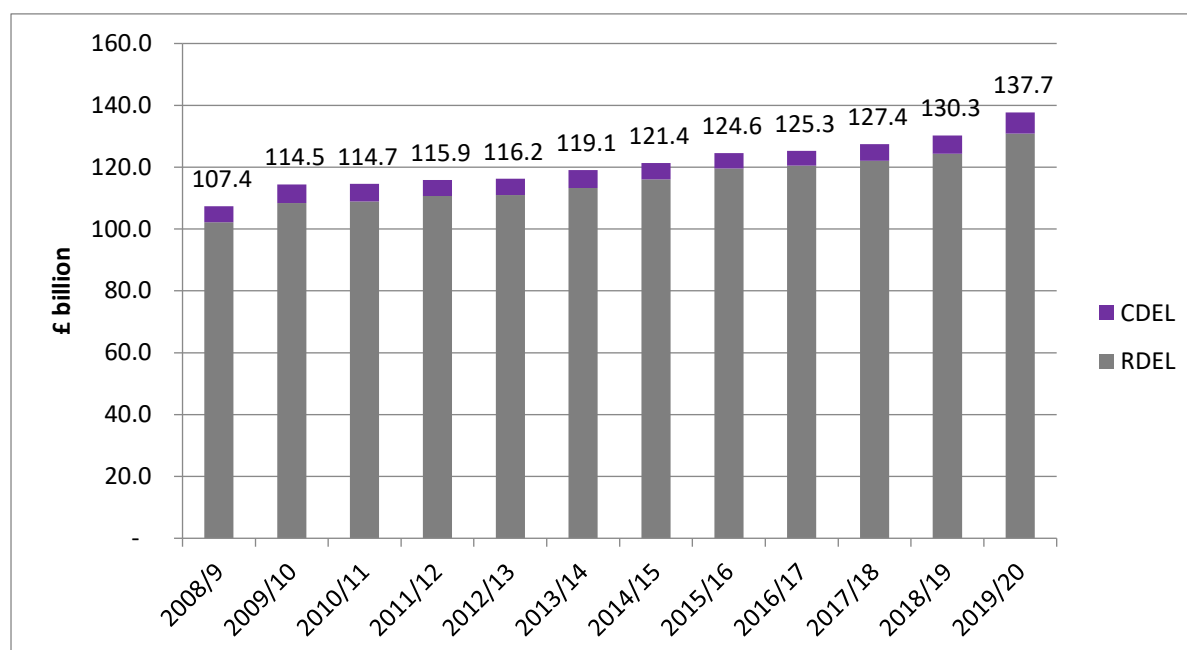
¹⁶ Note that here we use King's Fund nominal figures for the total DHCS budget (supplied by the King's Fund via personal communication with Siva Anandaciva (March 2020)), which exclude depreciation, resulting in a downward adjustment of around 0.6-0.9% to actual total spend each year compared to the figures which include depreciation. The underlying source for the King's Fund data is (Department of Health and Social Care, 2018a) for the years up to 2017/18 and (HM Treasury, 2019b) for 2018/19. We use Department for Health and Social Care (2019d) latest report for spending of different spending streams by the DHSC (e.g. NHS, Public health etc.). We adjust all the nominal figures using GDP deflators from HM Treasury (2019a).

budget was a substantial uplift¹⁷, resulting in an increase in total budget of 12.7% between 2014/15 to 2019/20 (see Figure 8). The average annual growth rates of the DHSC budgets were around 1.7% per annum in the period under Conservative government between 2014/15 and 2018/19, or 2.6% per annum including outturn for 2019/20 (authors' analysis using amounts in Figure 8) - a much slower increase than the historic average of 3.7% since the establishment of the NHS (The King's Fund, 2020).

The 7.3% increase in the total DHSC budget between 2014/15 and 2018/19 was lower than the 9.9% increase in the NHS England budget. With figures for 2019/20 included, the increase in the NHS budget still outpaced the increase in the total departmental budget by a considerable margin (with an increase in 16.7% in the NHS England budget, compared to an increase of 12.7% in the departmental total DEL budget).

¹⁷See footnote 8 for further discussion of the 2019/20 figures and COVID-related expenditure.

Figure 8 The Department of Health and Social Care total budget, 2008/09 to 2019/20, England (2018/19 prices)



Source: Authors' calculations using nominal figures for 2008/09 to 2018/19 supplied by the King's Fund via personal communication with Siva Anandaciva (March 2020); 2019/20 outturn are from HM Treasury (2020) and the GDP deflators from HM Treasury (2019a).

Notes:

1) RDEL 'Revenue' refers to day-to-day spending (eg staff salaries). CDEL 'Capital' refers to investment in, for example, buildings and equipment. TDEL is the total department of health and social care departmental expenditure limit reasury

2) King's Fund uses (Department of Health and Social Care, 2018a) RDEL excluding depreciation for the years up to 2017/18 and (HM Treasury, 2019b) for 2018/19. This means both RDEL and total DHSC funding is lower than that reported in the latest DHSC annual report. Report on outturn for 2019/20 and plans for 2020/21 inline with the Spring Budget 2020 and emergency funds for DHSC for COVID-19, taken from HM Treasury (2020).

5.2.3 NHS England budget

The NHS England budget comprises the largest share of the DHSC budget. Based on the figures published in late 2019 in the departmental report, spending increased during the period more than the extremely modest figures for growth had suggested in the November 2015 Spending Review. These figures show that there was an average 2.4% annual real terms increase in NHS Resource budget between 2014/15 and 2018/19. Outturn

figures for 2019/20 (published in PESA in July 2020)¹⁸ record an increase in spending of 6.1%, bringing the average annual change over the entire period 2014/15 to 2019/20 to 3.1% a year (Table 3).

Taking account of the plans for 2020/21 that were in place on the eve of the COVID-19 pandemic, the implied increase in the NHS England budget between 2014/15 and 2020/21 was planned to be greater than both the £8 billion commitment in the 2015 Conservative Party Manifesto, and the £10 billion figure announced in the 2015 Spending Review for this period – amounting to a £20.8 billion increase in real terms (Table 3). Some of this increase was the impact of the higher than expected employer contributions related to public service pension schemes, which came in from 2019/20. In addition, the earlier plans were expressed in 2015/16 prices using deflators available at the time, while the plans on the eve of the pandemic were based on 2018/19 prices and more recent deflators.

Table 3 NHS England RDEL, 2014/15 to 2018/19 (outturns) (£ m)

	Before new NHS financial settlement					After new NHS financial settlement	
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21 (plan)
Nominal	97,098	100,572	105,735	109,605	114,331	123,737	129,681
Real	103,996	106,862	109,846	111,615	114,331	121,312	124,839
Year on year real growth (%)		2.8	2.8	1.6	2.4	6.1	2.9
Cumulative growth from 2014-15 (%)		2.8	5.6	7.3	9.9	16.7	20.0
Average annual growth 2014-15 to 2018-19 (outturn) & separately 2018-19 to 2020-21 (planned)	2.4					4.5	
Average annual growth 2014-15 to							

¹⁸See footnote 8 for further discussion of the 2019/20 figures and COVID-related expenditure.

2020-21 (including plans)	3.1						
Cumulative growth from 2014-15 (£ bn, 2018/19 prices)		2.9	5.9	7.6	10.3	17.3	20.8

Source: Nominal figures for years 2014/15 to 2018/19 are from Department for Health and Social Care (2019d) annual report, Table 34 and represent final reported outturn figures. Outturn for 2019-20 is from HM Treasury (2020) and is in line with 2019 Spending Round. Planned nominal expenditure for 2019-20 and 2020-21 is from September 2019 Spending Round (HM Treasury, 2019c). Real-terms figures are the cash figures adjusted by the authors using GDP deflators from HM Treasury (2019a).

Notes: 1. Annual growth, average annual growth and cumulative growth are authors' calculations using real terms figures. 2. Years 2019/20 and 2020/21 include £2,851 million (cash terms) each to fund higher employer pension contributions.

5.2.4 Public health budget

The public health grant is a ring-fenced grant that goes directly to Local Authorities to provide public health services such as those for children between 5 and 19 years old (and since 2015, also for children under 5), some sexual health services, public mental health services, physical activity, anti-obesity provision, drug and alcohol misuse services and nutrition programmes. The public health budget is allocated to DCLG directly and is not included in funding total for NHS England. Between 2014/15 and 2018/19 the Public Health budget fell by 1.8% from £3.065bn to 3.01bn in 2018/19 (Figure 9). However, from 2015/16 public health budget also included spending on services for children aged 0 to 5, which had previously been included in the NHS budget and was therefore not included in 2014/15 figures. The public health budget was cut by 8.2% between 2015/16 and 2018/19, on a comparable basis, including funding for services for 0 to 5 year olds (Figure 9). Furthermore, looking at the current expenditure on public health by local authorities, the King's Fund estimated that on a comparable basis, excluding expenditure on services for children aged 0-5, there was 19% fall in public health spending for the period 2014/15 to 2018/19, and a further planned cut of 2.7% in 2019-20, bringing the estimated total planned change between 2014/15 and 2019/20 to 21% (King's Fund, 2018b; Kings Fund 2021).

The September 2019 Spending Review announced a real terms increase in the Public Health Grant allocated to local authorities for real terms increase for 2019/20 (HM Treasury, 2019c). However, the amount specified was assessed by experts as being significantly lower than the required £1billion to reverse the cuts to public health budget (Gershlick & Finch, 2020). The analysis by the Health Foundation shows that the reduction in health grant

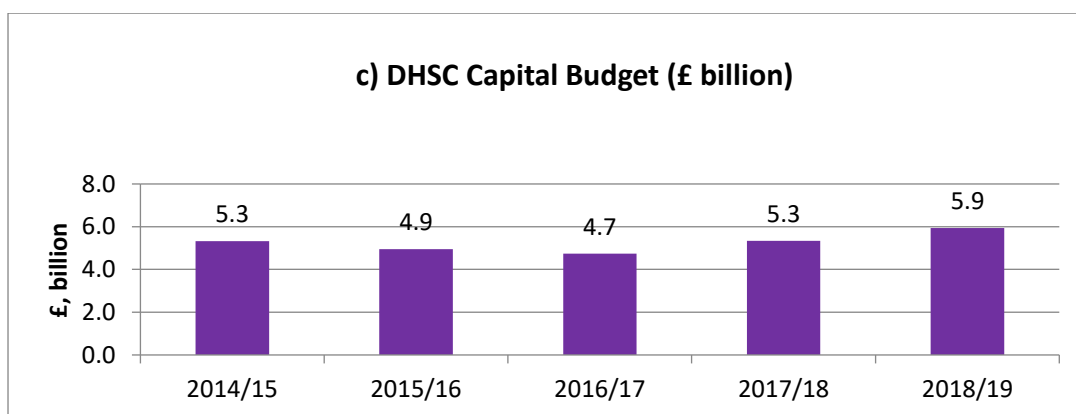
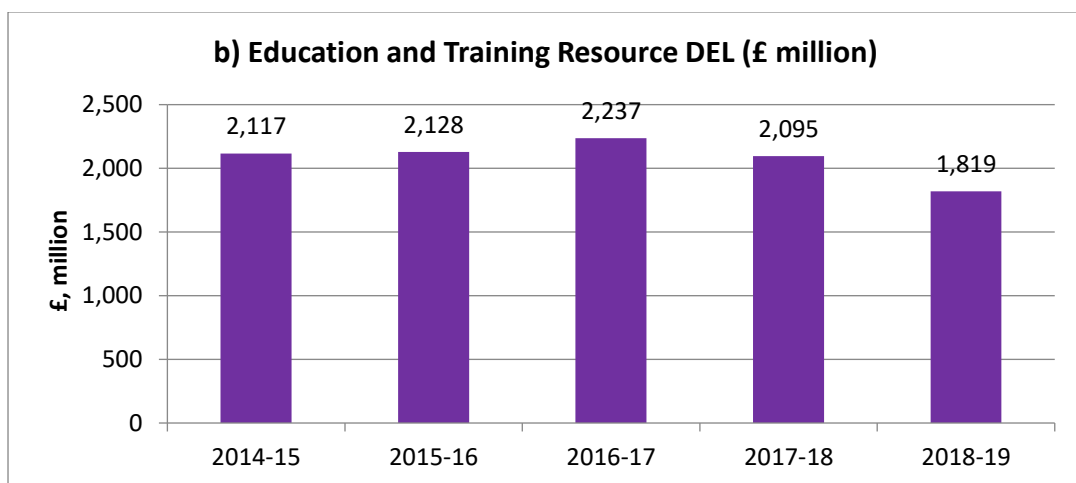
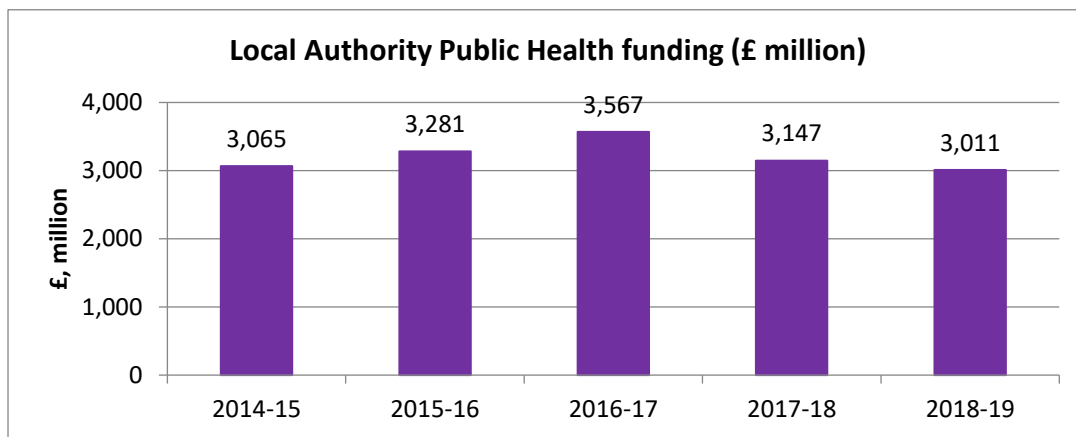
allocations to local authorities between 2015/16 and 2019/20 lead to the cuts in their spending on ten out of 12 elements of provision (see Figure 1 in Finch et al. (2021)). The highest cuts over the period were on spending on stop smoking services (33%), public health advice (28%), NHS health check programme (21%) and drug and alcohol services for adults (17%) and sexual health services (14%) with services affecting children and young (such as children's services and drug and alcohol services for youth) experiencing lower, but still significant, cuts. Moreover, Finch and colleagues (2021), show that the cuts to public health grant were greatest in more deprived areas, where people already had worse health outcomes, therefore exacerbating existing health inequalities by socio-economic deprivation.

5.2.5 Education and training budget

According to DHSC figures, there was also a real terms fall in funding in the DHSC education and training budget between 2014/15 and 2018/19, representing a 14% fall (Figure 9). The plans announced in the 2019 Spending Round included an increase to the Health Education England (HEE) budget by an additional £150 million for Continuing Professional Development for each nurse, midwife and allied health professional, as well as increased funding for wider education and training budgets in line with the vision of the NHS Long Term Plan (HM Treasury, 2019d). The overall net expenditure on Health Education England, which includes funding from the Department for Health and Social Care as well as other partners such as NHS England, fell even more than the DHSC education and training budget. Between 2014/15 and 2019/20, Health Education England total net expenditure fell from £5.3bn to £4bn, representing a 23% decline in real terms.¹⁹

¹⁹ Authors' calculations using Health Education England net total expenditure from the HEE annual reports and accounts (2016, 2017, 2018, 2019, 2020), adjusted to 2018/19 prices using GDP deflators in HM Treasury (2019a).

Figure 9 Funding of Public Health to Local Authorities, Education and Training budget and Capital budget (DHSC), 2014/15 to 2018/19 (2018/19 prices)



Source: Nominal figures are from Department for Health and Social Care (2019d) annual report, Table 34. Real terms figures are calculated by the authors using HM Treasury (2019a) GDP deflators.

5.2.6 Capital spending

Figure 9 shows that the DHSC capital budget rose in real terms from £5.3bn in 2014/15 to 5.9bn in 2018/19 (representing an 11.6% increase over this period) but with falls in 2015/16 and 2016/17. However, Kraindler and colleagues (2019) report a 7% real terms decline in capital spending by the DHSC between 2010/11 and 2017/18, noting that most of the declines over this period were explained DHSC transferring capital funds to the revenue budget to cover funding shortfalls in day-to-day running costs. These transfers contributed to the UK having a low level of capital investment in health by international standards (Kraindler et al., 2019).

The value of Private Finance Initiative projects (as at 31 March 2018), which use private finance to fund public capital projects such as hospitals, was £13bn (see Online Appendix Figure 66). This sum is *not* reflected in the figures for capital spending reported above. The end of both PFI contracts and their successor PF2 contracts was announced by the (then) Chancellor of Exchequer Philip Hammond in the Autumn 2018 Budget. However, the arrangements will affect the NHS for a long time, since many Trusts are required to pay high interest rates over a substantial period (NHS Support Federation, n.d.; Kraindler et al., 2019).

The National Audit Office repeatedly raised concerns over the period relating to the maintenance backlog and capital funding shortfall with a maintenance backlog as well as highlighting the need for IT upgrades (NAO 2019a, 2020a, c.f. section 6.1).

A short term injection of capital funding was announced in August 2019 (an extra £850m for 2019/20 to cover 20 hospital upgrades and a further £1bn for other capital infrastructure needs, including IT and building upgrades to be shared with Scotland, Wales and Northern Ireland (*PM Announces Extra £1.8 Billion for NHS Frontline Services*, 2019). Expert analysis suggested that this sum was inadequate in the light of the maintenance backlog and infrastructural challenges moving forward. Doubts were also expressed as to whether the sums allocated were “new money” or resources that had been initially allocated to trusts, which were initially requested to be saved but subsequently cleared for use (Gershlick, 2019). The September 2019 Spending Round confirmed the August announcement (HM Treasury, 2019d) but an expected review of capital funding (including a long-term plan for capital infrastructure improvements) was postponed. However, at the end of September 2019 it was announced that a £2.7 billion investment would be made covering six hospital trust upgrades (with delivery by 2020-

25) and 21 additional schemes receiving £100m of seed funding (to be delivered 2025-2030) (Department of Health and Social Care, 2019e).

5.2.7 Progress in relation to stated priorities: mental health, public and preventative health, and out of hospital care

NAO analysis setting out breakdowns of health spending in England in 2015/16 and 2018/19 is shown in Table 4 below. This confirms the real term reduction in the public health grant to local authorities discussed above, as well as a cut to the central Public Health England grant, and declines in real spending on combined primary and community health services between these dates. NAO conclude that in relation to a key theme set out in the NHS Five Year Forward View, reducing demand for services through a greater focus on public health and prevention, this aspiration was not matched by dedicated funding. In relation to the aspiration to increase out of hospital care, between 2015/16 and 2018/19, total spending on primary medical and community health services as a proportion of the NHS expenditure decreased from 20.0% to 19.4% while the share of hospital spending *increased* (National Audit Office, 2020a).

Table 4 Spending on public health, primary care, and community services, and hospital services in England, 2015/16 and 2018/19

	2015/16	2018/19
Public Health England’s budget 1 (£m)	962	1,002
Public health grant given to local authorities (£m)	3,676	3,219
Primary medical and community health services expenditure as a percentage of total NHS expenditure (excluding community services expenditure incurred by hospitals) (%)	20.0	19.4
Hospitals’ expenditure as a percentage of total NHS expenditure (%)	62.7	65.2

Source: National Audit Office (2020a)

Notes:

1 Public Health’s England budget excludes the public health grant given to local authorities that is shown separately in this table.

2 All budgets are in 2018/19 prices.

Other service areas in which the Government stated that expenditure would be prioritised in the current period include mental health services. In

England, the majority of public spending on mental health services is via Clinical Commissioning Groups (CCGs), which receive funding from the NHS England. CCGs use a substantial proportion of these funds to finance mental health trusts which provide services in local areas, with remaining funds allocated to specialised services directly by NHS England (C. Milne, 2019).

In 2015, the government introduced 'Mental Health Investment Standard' (MHIS), whereby CCGs were required to increase their funding for mental health services in line with their overall increase in funding each year. The proportion of CCGs meeting the standard increased from 81% in 2015/16 to 97% at the start of 2019/20 and the latest figures confirm that all CCGs are now meeting the standard (NHS England, n.d.b). Real spending of CCGs on mental health increased at a faster rate than overall NHS spending over this period (by 11.7% compared to 9.7%)²⁰ (see Table 10). When centrally funded mental health services are added to local spending, mental health funding (including learning disabilities and dementia) increased from £10,979 million in 2015/5 to £12,513 in 2018/19 (Parkin & Powell, 2020).

5.3 Trends in total (public and private) expenditure on health

In our previous analyses of health spending under the Coalition and during the three Labour administrations (Vizard & Obolenskaya, 2013, 2015), we used the ONS total expenditure on healthcare series to examine trends in public and private expenditure combined as well as breakdowns of private expenditure into, for example, expenditure on private insurance and out-of-pocket spending. ONS definitions have subsequently changed to be consistent with the definitions used in the System of Health Accounts (2011) and international definitions. The new definition of total expenditure on healthcare *excludes* capital expenditure but *includes* health related long-term care. As a result, elements of both public and private expenditure that we previously classified as social care expenditure are now incorporated into this series²¹. Based on the new definition:

²⁰ These increases are likely to be slightly higher due to the fact that not all the expenditure for 2019/20 was recorded in the plans for that years and additional resources are expected to be added throughout the year (NHS England, 2020b)

²¹ In understanding which elements of long-term care spending are included within this definition, note that long-term care (health) spending, which *is* included in the new healthcare expenditure definition, includes spending on support with basic activities of daily living (ADLs), which include activities such as bathing, dressing and walking. As a

- Government expenditure includes spending on curative and rehabilitative care, longterm care and medical goods²².
- Non-government financing of healthcare includes “out of pocket expenditure”, voluntary health insurance, financing by charitable organisations and enterprise financing²³.

The change in definition resulted in £30 billion extra expenditure being classified as falling within the scope of total healthcare expenditure in 2018²⁴ and increased the share of healthcare expenditure as a proportion of GDP. The 2018 health accounts reported that under the old definition ‘total public and private healthcare expenditure in the UK accounted for 8.9% of GDP, while expenditure using the new definition accounted for 10% of GDP (see Annex A in ONS (2020n)).

Based on the new definition, **Figure 10** shows that total current (government and non-government) health expenditure more than doubled, in real terms, between 1997 and 2019, increasing by an average of 3.8%

result, the new health expenditure definition includes expenditure on local authority provided adult social care (nursing or personal care) and a small amount of children’s social care, as well as long-term care (health). These amounts include local authority-funded social care, spending on the carer’s allowance and long-term care financed through households, as well as some other less costly items, but exclude capital spending. Long-term care (health) expenditure also includes expenditure on residential and nursing homes. Long-term care (social), which is not included in the healthcare expenditure definition, incorporates spending on supported housing and supported accommodation that maintains independence related to IADLs (Office for National Statistics, 2020n).

²² In 2018, the majority of public expenditure (64.1%) was on services providing curative and rehabilitative care, 15.1% went on long-term care, 9.4% on medical goods, and 5% on preventative care (remaining - on ancillary service governance and other services not elsewhere classified). Between 2014 and 2018, real terms growth in total government expenditure was 5.8%, with higher growth in curative and rehabilitative care (8.8%) and long-term care (7.8%), with preventative services expenditure remaining relatively stable and cuts to expenditure on medical goods and services.

²³ Non-government financing of healthcare reported by ONS is divided into 4 categories: 1) out-of-pocket spending – that by individuals for healthcare related to goods and services, by clients for LA and NHS-provided services and prescription charges; 2) voluntary health insurance – includes private medical and dental insurance, dental capitation plans and the healthcare cover related travel insurance; 3) financing by charitable organisations (non-for profit institutions serving households); 4) enterprise financing – financing of healthcare activity which is covered by organisations (mainly employers) which is outside of an insurance scheme, for example, occupational health.

²⁴ The cost of the consumption of fixed capital – a notion similar to depreciation, is included in the current definition. More information about the new definition and what exactly is included in the expenditure figures can be found in “An introduction to health accounts” (Office for National Statistics, 2016, 2019k, 2020n).

annually. Between 2014 and 2019, real terms total healthcare expenditure grew by 8.2%, on average 2.2% annually²⁵ (from £202.9bn to £225.2bn), with the real terms growth rate in 2019 being the fastest since 2009. Government expenditure on health, including spending by the NHS, local authorities and other public bodies financing health care, increased as a share of total expenditure on health under the Labour administrations of the first decade of the 21st century from 75% to a peak of 82% between 1997 and 2010, before tailing off under the Coalition and the period of Conservative government, to 79% in 2019 (Figure 10).

Private medical insurance

Spending within the voluntary health insurance category shows negative average annual growth between 2014 and 2019, falling on average by 0.9% and 1.2% per annum (Figure 10). Supplementary data on trends in private medical insurance indicates that just before the financial crisis and subsequent economic recession, in 2007, spending on private medical insurance was increasing in real terms, but in 2009 and in 2010 it fell. Laing and Buisson attributed the contractions in 2009 and 2010 to recessionary pressures. The demand for private medical cover increased by 1.8% following the 2010 General Election: from 3,962,000 subscribers in 2010 to 4,032,000 in 2012, while spending on private medical insurance remained broadly constant (Laing and Buisson, 2012; Laing and Busson, 2014). Subsequent analysis refers to a static market of private medical cover: while there was an increase in demand in 2015, the was a “brief fillip” resulting from small number of large corporations extending schemes to cover more employees (Laing and Buisson, 2018). In 2016, £4.8bn was spent on private medical cover, which was an increase on the 2008 figure of £4.1bn (Laing and Buisson, 2019). However, Burchardt and Reader (2023) report that an estimated 1 in 20 households in the UK had private medical insurance in 2018, a lower figure than in 2013, while highlighting that industry experts are forecasting an increase during the 2020s.

Out-of-pocket spending

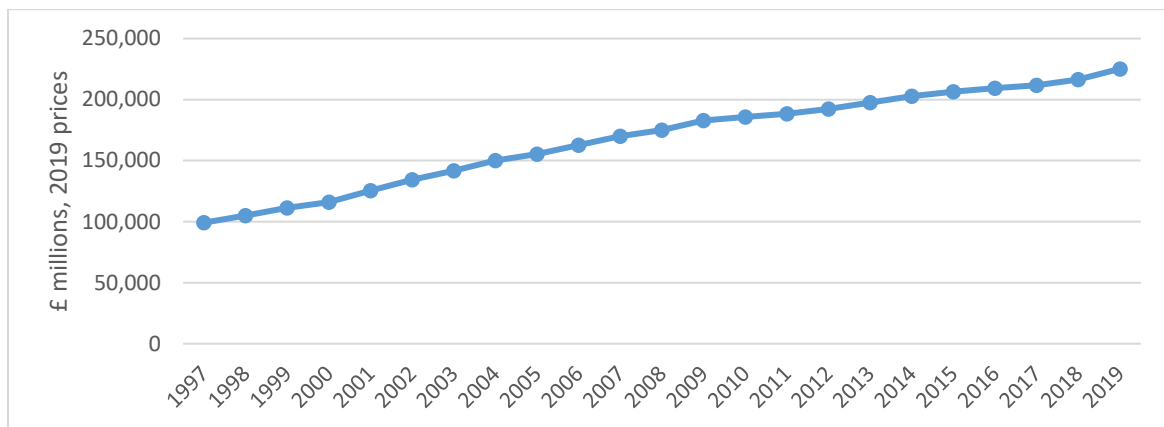
‘Out of pocket expenditure’ accounted for just under 16% of overall spending on healthcare in 2019, or £35.7bn. The share of out-of-pocket spending in total health expenditure decreased under the Labour administrations from 19% to 13% between 1997 and 2010. However, this share increased after 2010 and had reached 16% by the eve of the

²⁵ Authors’ calculations using underlying figures from Table 2a in ONS (2021f)

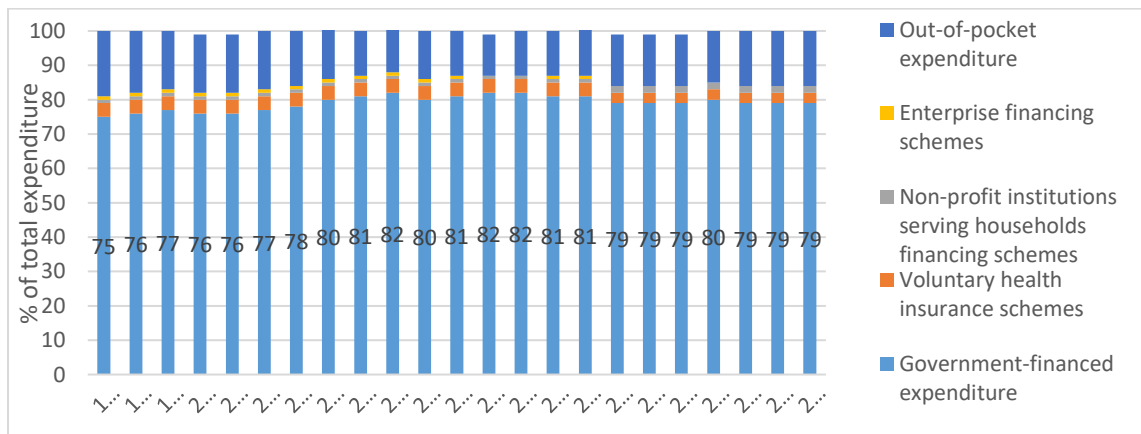
pandemic. Between 2014 and 2019, out-of-pocket expenditure increased from £30.7bn to £35.7bn, while its share of the total expenditure grew from 15.2% to 15.9% (see Figure 10, panel (b)). This reflects upward pressure on out-of-pocket long-term care expenditure driven by increases in non-governmental spending on residential and nursing care (Burchardt et al., 2020b; Office for National Statistics, 2020n).

Figure 10 Total current (government and non-government) expenditure on healthcare, 1997 to 2019 (UK)

a) Total current (Government and non-Government) expenditure on health



b) Government and non-government expenditure (by financing scheme) as a proportion of total current healthcare expenditure



Source: ONS (2021f). Note: data from UK health accounts 2019 expressed in 2019 prices adjusted using March 2021 deflator.

Patient charges

The largest share of NHS income is financed through general taxation, followed by contributions to National Insurance, but a small proportion is financed from patient charges. The latter include prescriptions and dental treatment charges, income from private patients, payments for parking in hospital, and overseas visitors' medical treatment charges. Drawing on estimates by the Office for Health Economics (OHE), we previously noted a stable trend in the proportion of income from each of the components during the first two years of Coalition in government (2010 and 2011) (see Vizard and Obolenskaya (2015) and the original figures in Hawe and Cockcroft (2013)). Harker (2019) reports on income from patient charges for 2018/19: £576m from prescription charges, £807m from dental charges and £0.6bn from private patient charges. Hospital parking charges have been particularly contentious during the current period, resulting in a 2019 Conservative Party Manifesto commitment on this issue. Newspaper reports suggested that NHS trust income from car parking in 2018/19 stood at £254,373,068 including at least £142,958,247 from patients and visitors and £65,219,879 from staff (Donnelly, 2019). The Immigration Health Surcharge (IHS) raised £297.9 million in 2018/19 (Gower & Wilkins, 2020) With the IHS rates set to increase to £624 in 2020, including a £470 rate for children, as well as taking into account the extension to EEA nationals, OBR estimates published in early March 2020 projected an additional £150m in receipts in 2020-2021 rising to at least an additional £355 thereafter (Office for Budget Responsibility, 2020).

5.4 International comparisons

The OECD reports on total current (government and non-government) expenditure on healthcare using a definition that is consistent with the new definition of total (public and private) expenditure on healthcare in the UK used in section 5.5²⁶. However, differences in the reporting of the private and social components of long-term care across OECD countries as well as differences in the way countries classify what is as 'health' and what is

²⁶ While the definitions adopted by the OECD and used as a basis for international comparisons are consistent with the ONS National Accounts definitions set out in the previous section, differences can occur due to the use of estimates, revisions to data, different publication dates of ONS and OECD timeseries, and the use of different prices. For example, expenditure figures may also be expressed in current prices, real prices, real prices using prices from different years or that have controlled for inflation using different deflators etc. Additionally, some of the expenditure figures in this section are expressed in dollars and purchasing power parities.

'social' long-term care, mean that comparisons across OECD countries should be made with caution. The net effect of all the methodological changes to the new definition of healthcare expenditure meant that UK's total spending classified as healthcare increased more than in EU countries in general, with the new definition resulting in the UK moving from below average total expenditure on healthcare as a share of GDP (under old definitions) to close to average (using the new definition) in 2014 (Ward & Chijoko, 2018). Also note that different countries moved to the new system of healthcare reporting in different years, which complicates the comparability of the international figures even further.

Nevertheless, some broad patterns emerge. The UK's healthcare expenditure as a percentage of GDP was lower than the EU14²⁷ average in 1997 but increased and caught up with the EU14 average during the first decade of the 21st century. Convergence with the EU14 average was reached by 2006 with total healthcare expenditure as a share of GDP increasing from 7% in 1998 to a peak of 10% in 2009 and 2010 – just above the EU14 average. While total healthcare expenditure as a share of GDP was maintained in the immediate wake of the financial crisis and subsequent recession, with the onset of the austerity programme, between 2011 and 2019, healthcare spending in the UK as a proportion of GDP broadly flatlined at just under 10%, with a low of 9.6% recorded in 2017, and a slight increase to 9.9% in 2019 following the new NHS financial settlement. The EU14 average figure showed slightly greater downward pressure over this period, as the growth of total expenditure on healthcare in other EU14 countries also slowed down following on from the financial crisis, Great Recession and the adoption of austerity policies in some cases. EU14 average spend as a share of GDP ranged from 9.7% in 2011 to a low of 9.4% in 2019. As a result, total healthcare expenditure in the UK as a share of GDP was half a percentage higher in the UK than the EU14 average on the eve of the pandemic, though below the proportion recorded several comparator countries including Germany and France, where figures of 11.7% and 11.1% were recorded in 2019.

Looking at total expenditure on health compared to the size of populations, total health expenditure per capita in the UK increased from £1194 to £3334 in current prices between 1998-2019. The OECD database provides an international time series with total expenditure on health per capita expressed in US current price dollars adjusted for purchasing power (using

²⁷EU14 countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Republic of Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden.

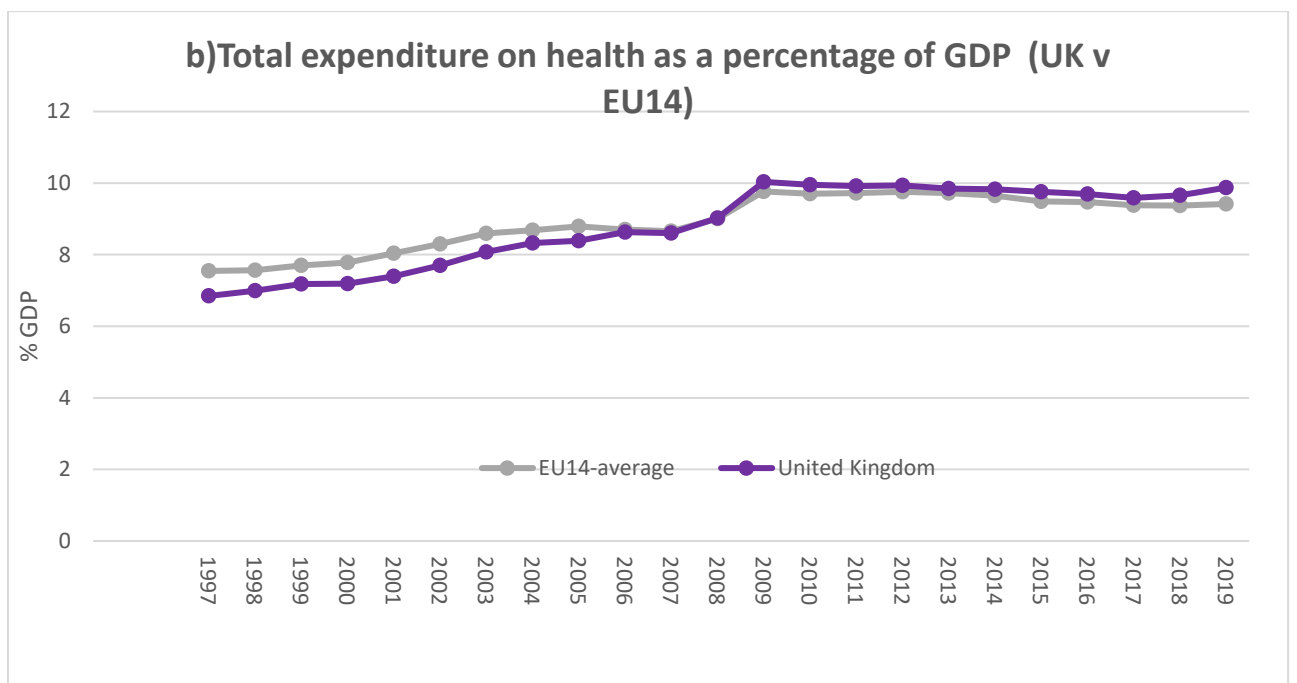
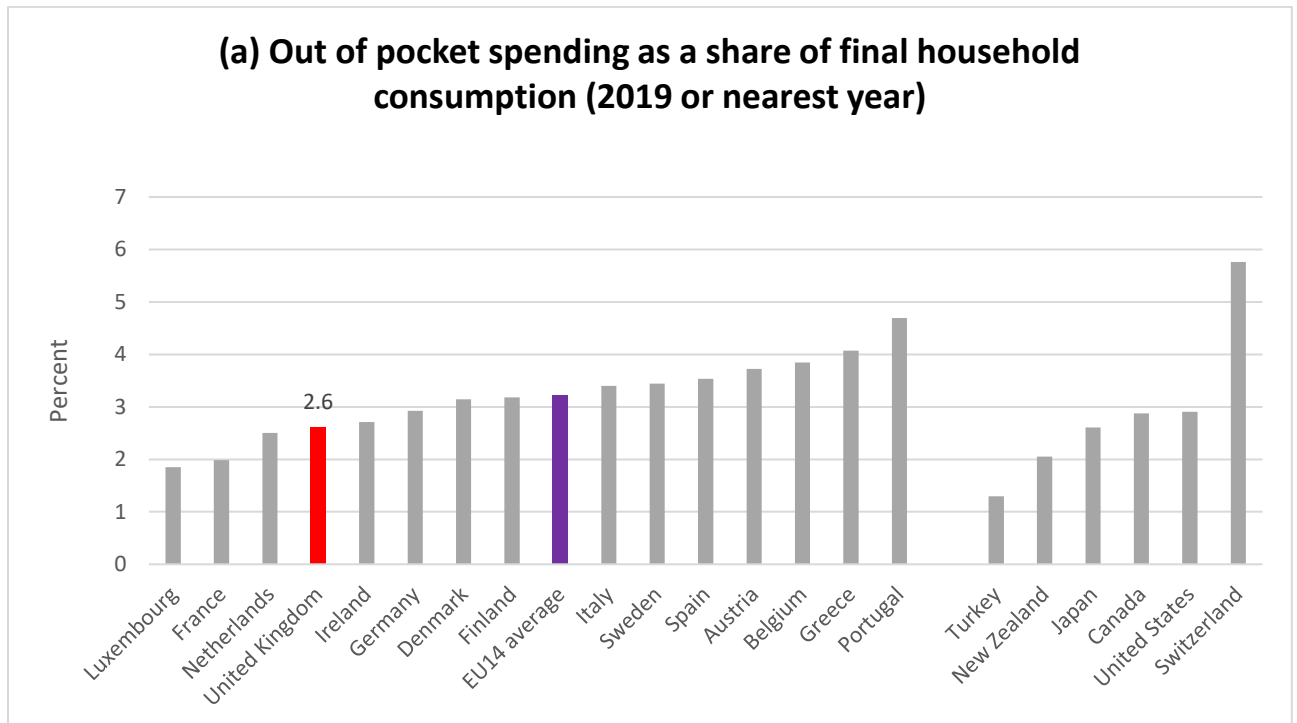
purchasing power parity ratios) in each country context. This series identifies that on the eve of the pandemic, in 2019 (and in current dollar prices adjusted for purchasing power parity), UK expenditure per capita was \$4386, which was above the OECD 38 average (\$4004) but below the EU-14 average (\$4737), second lowest in the G7 (after Italy) and lagging behind comparator countries such as France (\$5168) and Germany (\$6408) by a considerable margin (OECD 2023).

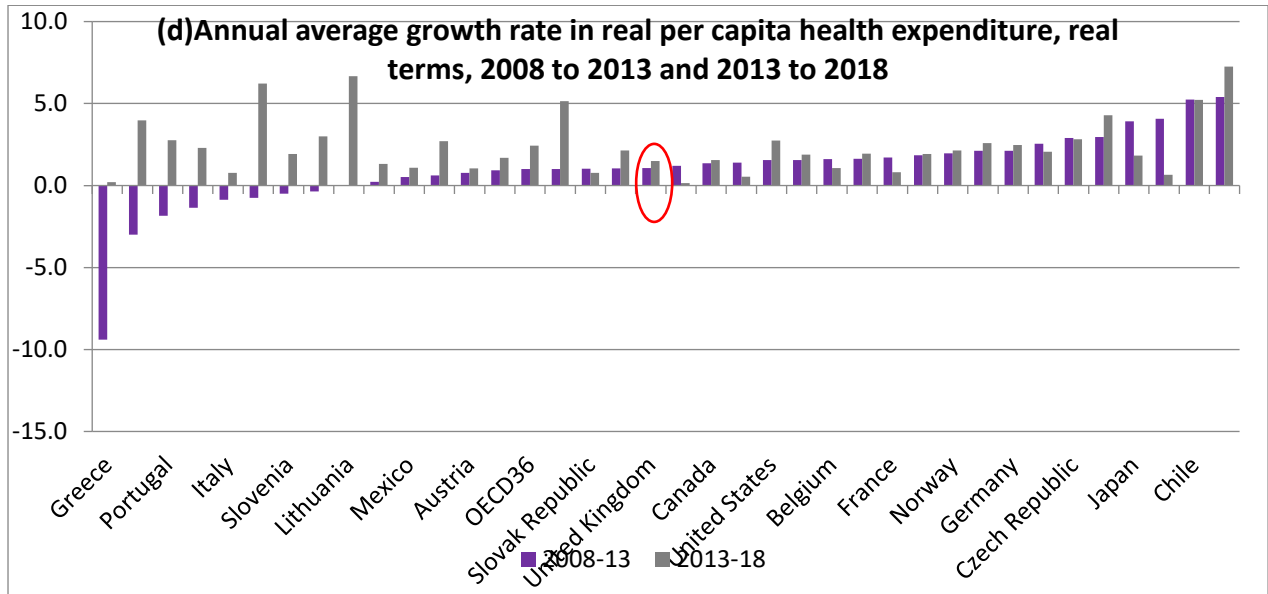
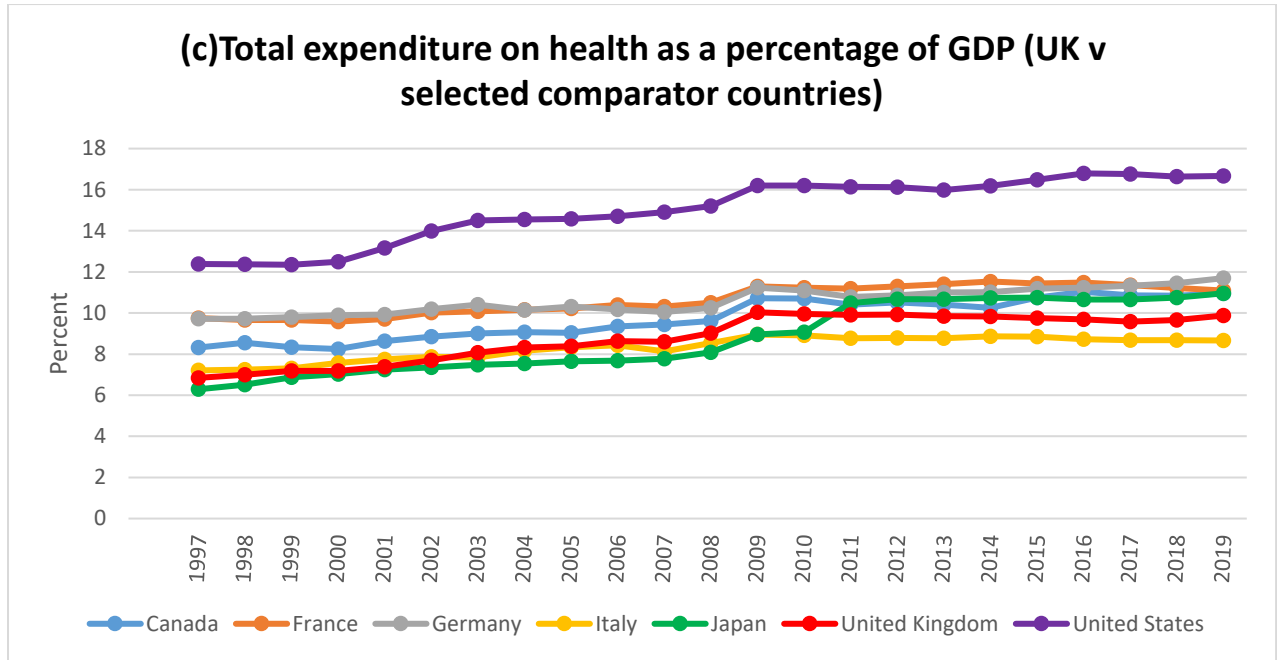
Figure 11 Panel D shows the change in the average annual growth rate in real health expenditure per capita in OECD countries over the period 2008-2013 and 2013-2018²⁸. Real health expenditure per capita *fell* in some EU countries in the wake of the financial crisis and Great Recession, with average annual growth rates of - 9.4% per annum in Greece, - 1.9% per annum in Portugal and -0.9% per annum in Italy between 2008 and 2013. The UK saw an average 1.1% increase per year between 2008 and 2013, a higher rate than the EU14 average (0.2% per annum), but lower than the average annual growth in comparator countries such as France and Germany. Between 2013 and 2018, the average annual growth in per capita health expenditure was higher in the UK than the EU14 average (1.5% and 1.3%, respectively), above that of France (0.8%) and Netherlands (0.5%), but lagged behind Germany (2.5%).

USA total expenditure on health as a percentage of GDP and per capita has consistently ranked first amongst OECD countries by a considerable margin, and also increased at a faster rate than in other countries between 1997 and 2019 (Figure 11 Panel B). Research has suggested that explanations of higher levels of spending in the US include higher prices for goods, services and labour such as pharmaceuticals, higher administrative costs and higher salaries for doctors and nurses, amongst other factors (e.g. Anderson et al 2019).

²⁸See the note under Figure 11 for further details of the figures cited in this paragraph.

Figure 11 International comparisons of total (public and private) expenditure on health





Source: For panels (a) and (b) OECD (2023). For panel (c): reproduced by the authors using underlying figures for Figure 7.2 in OECD (2019a) Health at a Glance 2019. **Notes:** EU-14 average is an arithmetic average for the EU-14 (EU-15 excluding UK, that is Austria, Belgium, Denmark, Finland, France, Germany, Greece, Republic of Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden). The figures for 2018 used in the calculations in panel c were provisional at the time of publication, based either on provisional figures provided by each country or preliminary estimates made by OECD. In panels B and C, there is a break in the UK 1997 data point. In panel C, breaks are flagged in the original data for France, Italy and Japan for various years; for details, see OECD (2023).

6. Healthcare provision (inputs and outputs)

In this section we examine healthcare provision and what was achieved with the national resources allocated to health under the three Conservative majority governments that were in power between May 2015 and early 2020, when the COVID-19 pandemic struck.

Key findings (healthcare provision)

- Growth in public service healthcare inputs and outputs in the UK was considerably slower during the second decade of the 21st century than the first. Up to 2018 (and using ONS measures of public service healthcare inputs and outputs), average rates of input and output growth during the period of Conservative majority governments remained at broadly similar rates to those recorded under the Coalition during the first half of the decade, and considerably below the average rates of input and output growth recorded during the 2000s.
- Average annual increases in ONS measured public service healthcare productivity remained relatively high - providing one indication that the NHS was doing 'more for less' during the second decade of the 21st century.
- There was substantial evidence of pressure mounting up across multiple healthcare indicators between May 2015 and the eve of the COVID-19 pandemic in early 2020, indicating a misalignment between healthcare need and demand on the one hand and healthcare provision on the other, and adding to the pressures that had previously built up under the Coalition. This included:
 - Mounting workforce pressures, with very substantial healthcare workforce unfilled vacancies on the eve of the COVID-19 pandemic, particularly in nursing.
 - Substantial further increases in waiting times across multiple health services and indicators, coupled with an increasing trend in urgent operation cancellation; high general and acute bed occupancy, particularly over winter 2017/18 and in late 2019; and continued adverse trends in avoidable hospital admissions and rates of delayed discharges which remained high on the eve of the pandemic (though below their 2016/2017 peak).

- Trends in patient experiences were mixed - with many aspects of inpatient experience remaining positive but the overall inpatient experience indicator declining in 2018/19 with deterioration or stagnation in some dimensions of person centred and integrated care; improvements in overall experiences of cancer care but deteriorations on some indicators in 2019 and consistently worse experiences in relation to home care and home based support from health or social services; indications of improvements in some aspects of maternity care but worse and deteriorating experiences of seeing a midwife after going home; improvements in experiences of some areas of urgent and emergency care but deterioration in experiences of waiting; a deterioration in overall experiences of GP services (based on consistent data up to 2016/17); notably worse reported experiences in relation to community mental health than in other areas of patient experience; and continued evidence of substantial inequalities in patient experience by deprivation decile and ethnicity – most notably in relation to some dimensions of general practice and cancer care.
- There was a decline in public satisfaction with the NHS between 2015 and 2018 (with a small increase in 2019).
- Concerns were expressed over the period about depreciation of capital stock including buildings, medical equipment and IT – with potential impacts for future productivity and service transformation.
- OECD and other international data suggest that, on the eve of the pandemic, the UK lagged behind several comparator countries in relation to key indicators such as doctors and nurses per head, the availability of beds and access to some medical equipment.

6.1 ONS estimates of healthcare inputs, outputs and productivity

We first consider ONS trend data on public services healthcare inputs, outputs and productivity in UK. ²⁹

- The ONS definition of healthcare inputs is comprised of three components: 1) labour inputs (full time equivalent staff such as doctors, nurses, GPs and ambulance staff, with bank staff included from 2015/16 within the data for England); 2) goods and services (equipment used by healthcare providers as well as GP-prescribed drugs and services provided by non-NHS organisations and agency staff); 3) capital consumption (the cost of deprivation of fixed capital such as buildings)³⁰.
- ONS measures of healthcare output (quantity) include the number of individual healthcare activities, weighted by its cost, within four sectors hospital and community health services (HCHS), family health services (FHS), GP prescribing and non-NHS provision. Since these activities are weighted by cost, it means that treatments that are common and expensive have a greater effect on the output index than a similar rate of growth in treatments that are not as common

²⁹ At the time the analysis for this section was written, data on overall trends in healthcare inputs, outputs (adjusted for quality) and productivity for the UK up to calendar year 2018 were available from the UK productivity report (Office for National Statistics, 2021e). However, the more detailed information set out in the ONS UK healthcare productivity report (which includes more detailed breakdowns for inputs and outputs as well estimates for outputs before quality adjustment) was only available up to calendar year 2017. Separate breakdowns for England were available to financial year 2018/19 and are included for reference in Online Appendix Table 19.

³⁰ The ONS calculates the total inputs index by weighing the growth rates of the three input components according to their share of total expenditure and then combining them. Only a relatively small share of total expenditure goes towards capital consumption, which means that goods and services inputs and labour inputs account for the larger shares of input expenditure and are therefore given a greater weight and have a greater effect on the overall inputs index. Note that labour inputs are estimated by measuring the change in the number of full time equivalent staff, taking into account their average earnings, while inputs for goods and services are estimated indirectly – by adjusting expenditure for each sub-component in this category (i.e. the cost of various equipment used by healthcare providers) by an appropriate deflator (Office for National Statistics, 2019h).

and/or are low-cost. A second output measure adjusts for changes in healthcare *quality* as well as *quantity*.³¹

- ONS healthcare productivity is a ratio of growth in the total quantity of healthcare output provided (adjusted for quality) and growth in the total quantity of inputs used. A positive productivity figure indicates an increase in productivity, or, otherwise put - more output is produced for each unit of input. It is worth noting, however, that productivity is not a measure of value for money and it is not a measure of the wider performance of public services.

Figure 12 shows annual change in ONS public services healthcare inputs, outputs (quality adjusted) and productivity between 1995 and 2018 for the UK as a whole. The figure shows substantial growth in healthcare inputs over this period (125%), and an even greater increase in quality-adjusted output (174.5%). To compare quality adjusted and non-adjusted outputs, we look at the available figures for the period 1995 to 2017, which show that non-quality adjusted output increased by 144% while quality-adjusted output increased by 162%, with the effect of the quality adjustment being to increase the rate of output growth substantially over this period (c.f. Figure 74 online appendix). Input growth has outpaced output growth, with ONS measured healthcare productivity increasing by 19% between 1995 and 2017 and by 22% between 1995 and 2018.

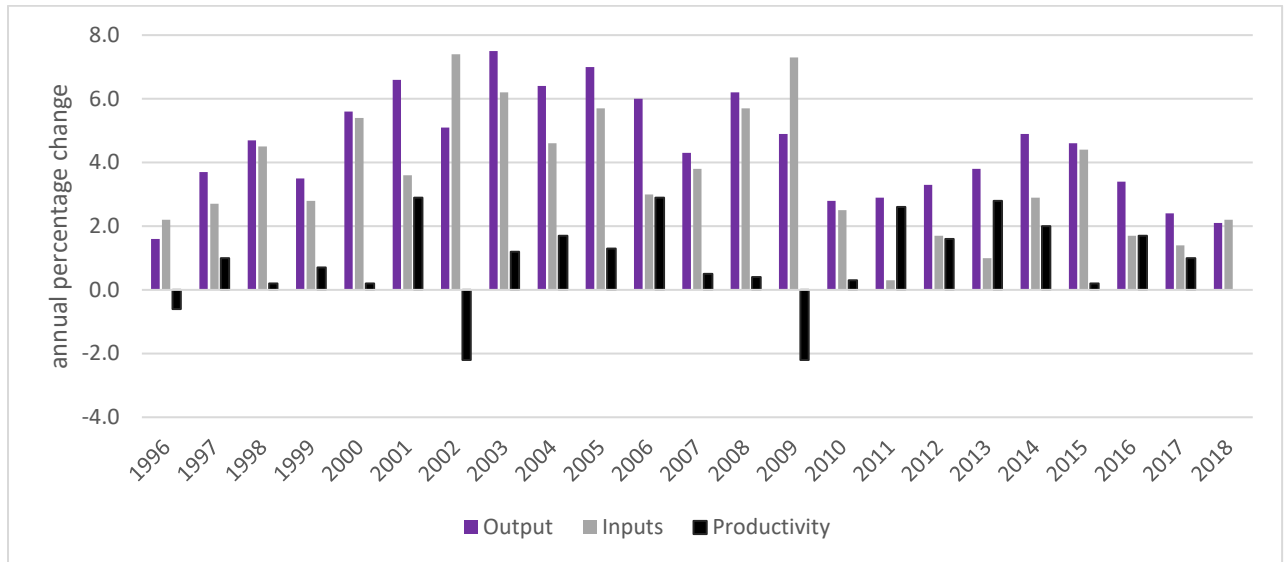
Looking at these trends in more detail, input growth over the period 1995 to 2017 was driven by growth in goods and services (which increased by 258% to 2017, followed by capital consumption (87%) and labour (57%). Note that the data is impacted by the inclusion of expenditure on bank staff within labour inputs for England from 2015/16, which resulted in the upward revision of previously reported labour inputs growth. However, rising expenditure on bank staff was roughly offset by the decline in the expenditure on agency staff over the period (recorded within 'goods and services' element of inputs), which in combination had a relatively small impact on overall inputs (Online appendix Figure 73). The highest growth across the components of outputs was in non-NHS quantity, followed by GP

³¹ The quality adjustment has three components: an adjustment that approximates to extra quality-adjusted years arising from medical procedures (based on post-operative survival rates, health gain following procedures and changes in waiting times); and an adjustment relating to primary medical care outcomes (adjusting for the proportion of patients on GP lists whose blood pressure/cholesterol is maintained within target levels); and a small adjustment based on patient experience surveys). It is applied to hospital, community and family services output which comprise around 79% of output in the most recent data (Office for National Statistics, 2020i).

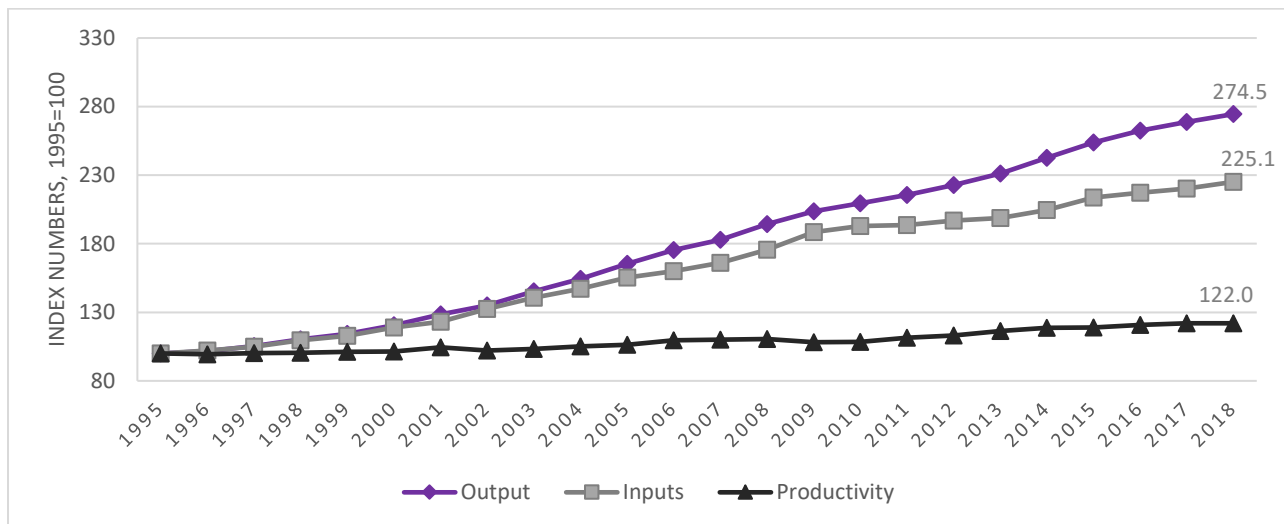
prescribing, HCHS and FHS. The largest contribution to output growth over the period was from HCHS sector because this accounts for the highest output share (Figure 74 online appendix).

Figure 12 Annual growth in public service healthcare inputs, outputs (quality adjusted) and productivity 1995 to 2017 (UK)

(a) Annual growth (%)



(b) Index numbers (1995=100)



Source: Reproduced from ONS (2021e)

Comparing rates of input, output and productivity growth during the first and second decades of the 21st century, the increases in both inputs and outputs were slower in 2010s compared to 2000s. Quality adjusted output growth outpaced input growth by a considerable margin over the period as a whole, and this effect is almost entirely noticeable after 2010. As a result,

the increases in productivity over the period are almost entirely explained by increases during the second decade of the 21st century, with healthcare productivity growth outpacing general economy wide productivity growth. In this sense, the NHS effectively did deliver “more for less” and this increasing productivity trend provides one indication that the drive for efficiency savings was at least in part delivered over the period under examination.

However, in interpreting these figures, however, it is important to note that the fact that output growth has outpaced input growth during the second decade of the 21st century was in part driven by public sector pay freezes that were introduced by the Coalition and maintained for several years, and that the ONS productivity measures do not capture future workforce quality or quantity effects. Moreover, output growth slowed down during a period of rising need, demand and capacity constraints and while the ONS-output measures include an element of quality adjustment, the ONS productivity measure does not provide a comprehensive picture of whether the healthcare output delivered achieves the desired outcomes of a healthcare system (Office for National Statistics, 2020i). Capacity constraints such as high bed occupancy, increased waiting times and pressure on healthcare quality that have characterised the recent period are not well-captured by existing concepts and measures of healthcare productivity and efficiency. Thus while there was positive (quality-adjusted) productivity growth of almost 1% in 2017, quantity output grew at its slowest rate in 2017 than in any year since 1996. As Kings Fund noted: “[...] in a system where demand fundamentally exceeds capacity, efforts to rapidly reduce costs can also increase inefficiency and be counterproductive. For example, increases in waiting times in accident and emergency departments and high bed occupancy in NHS hospitals reflect a system that does not have the spare capacity to deal with surges in demand over winter. The result is that highly trained NHS staff are unable to treat patients because beds, operating theatres and intensive therapy units are fully used” (Anandaciva, 2017; Office for National Statistics, 2020i)³².

Moreover, concerns were expressed over the period about depreciation of capital stock including buildings, medical equipment and IT – with potential impacts for future productivity and service transformation. This includes concerns about the maintenance of the existing estate as well as the need for upgrades to medical equipment and IT as a result of both ageing and

³²Note however that growth in ONS quantity outputs during the second decade of the 21st century has outpaced the increases in the simple indicators of need and demand discussed in section 5.1.2. See Figure 70 online appendix.

technological advances. The National Audit Office repeatedly raised concerns over the period relating to the maintenance backlog and capital funding shortfall with the maintenance backlog estimated to have increased from £4.4bn in 2014/15 to almost £6.5bn by 2018/19 (National Audit Office, 2019a, 2020a). On the eve of the pandemic, in early 2020, NAO warned that trusts were continuing to struggle to make the capital investments needed to address backlogs and maintain the estate, with parts of the NHS estate not meeting the needs of a modern health system, storing up problems for the future. Additionally, NAO analysis highlighted that there had been inadequate investment in the IT upgrades required to address outmoded, fragmented and digitally insecure legacy IT systems and as a basis for digital service delivery going forward (NAO 2020ac).

Looking at the annual average growth rates in inputs, outputs and productivity by political administration (up to 2018), total inputs increased by an average of 2.4% per annum during the period of Conservative majority governments, compared to 1.7% under Coalition and 4.8% per annum under Labour. Total outputs (quality adjusted) increased by an annual average of 3.1% per annum during the period of Conservative majority governments, compared to 3.5% under Coalition and 5.3% per annum under Labour. Total output volume (*not* quality adjusted – and only up to 2017) increased by an annual average of 3.3% per annum during the period of Conservative majority governments, compared to 3.2% under Coalition and 4.9% per annum under Labour (see Table 5 and Table 15 in Online Appendix).

Annual average rates of productivity growth were most rapid under the Coalition, when rates of input growth were most constrained. Under Labour the average annual productivity increase for the years 1997 to 2009 was 0.5%; under the Coalition the average annual increase for the years 2010 to 2014 it was 1.8%; and under the early period of Conservative majority government the average annual increase was 1.0% (2015 to 2017) and 0.7% (2015 to 2018). Separate breakdowns for England show a *decline* in productivity in 2018/19 (Table 5 and Table 21).

Trends in non-NHS output have been particularly volatile over time, with rapid growth during Labour's period in power, followed by a slower rate of increase during the Coalition period, but with volatility returning in recent data points, including 16.3% growth in 2015 but only 3.1% in 2017 – the slowest annual growth since 1999 (see Table 15 in Online Appendix, and ONS (2020j)). Note that while there was rapid growth in non-NHS output between 1997 and 2010, its expenditure share in total output was relatively low but increasing (from 2.6% in 1997 rising to 8.9% in 2010). As a result,

growth in non-NHS outputs did not make substantial contribution to overall output growth over this period. In contrast, since 2014, expenditure on non-NHS output relative to the total has been higher than for GP prescribing (increasing from 10.3% in 2014 to 12.2% in 2017). By the end of the period, growth in non-NHS output was the second highest contributor to the overall output growth after HCHS output (see Table 16 and Table 17 in Online Appendix).³³

Table 5 Annual average change in public services healthcare inputs, outputs and productivity by political administration (UK)

(A) Average annual change

	Output Growth (quality adjusted)	Inputs Growth	Productivity Growth
Labour (1997-2009)	5.3	4.8	0.5
Coalition (2010-2014)	3.5	1.7	1.8
Conservatives (2015-2017)	3.5	2.6	1.0
Conservatives (2015-2018)	3.1	2.4	0.7

(B) Average annual change in inputs by component

	Labour	Goods and services	Capital consumption	Total Inputs
Labour (1997-2009)	2.7	8	4.1	4.8
Coalition (2010-2014)	0.4	3.1	0.3	1.7
Conservatives (2015-2017)	2.3	3.0	1.7	2.6
Conservatives (2015-2018) ¹	2.4

(C) Average annual change in quantity output (not adjusted by quality) by component

	HCHS	FHS	GP Prescribing	Non-NHS	Total (NQA)
Labour (1997-2009)	3.6	2.2	9.3	16	4.9
Coalition (2010-2014)	2.9	1.7	3.8	6.5	3.2

³³ The trend for England in terms of the contribution of non-NHS output growth to the overall growth is similar to that of the UK. "Publicly-funded healthcare output from non-NHS providers grew by 2.4% in FYE [financial year ending in] 2018, the slowest growth in this component since FYE 2000. Growth in non-NHS providers' spending was only slightly slower in FYE 2018 than FYE 2017, but much slower than the average for the series of 11.6%. Non-NHS provision has seen faster growth in earlier years in the series, although it should be noted that, earlier in the series, non-NHS provision accounted for a relatively small share of expenditure and so the very high growth rates seen in Figure 2a for non-NHS provision in FYE 1998 and FYE 2004 do not necessarily translate into exceptionally large absolute increases in healthcare output" (Office for National Statistics, 2020h, p. 9).

Conservatives (2015-2017)	2.6	1.7	4.0	9.1	3.3
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Source: Authors' analysis using figures in Reference table 3a (Office for National Statistics, 2020i) and ONS (2021e)

Notes: 1. At the time this analysis was undertaken, UK figures for the components of inputs were only available to 2017.

6.2 Healthcare workforce

Despite the increase in labour inputs overall in the recent years, workforce shortages and recruitment and retention issues have been a dominant and recurring issue on the health agenda in the current period. There is a widespread consensus that the workforce needs to expand substantially to keep in line with rising demand associated with population ageing and the rise of prevalence of long-term conditions, disabilities and health problems. The Nuffield Trust, Kings Fund and the Health Foundation estimated that the overall staffing shortage was around 100,000 in 2018 and was set to more than double by 2030 (Nuffield Trust et al., 2018). The 100,000 represents the number of vacancies across NHS Trusts, the vast majority of which are being filled on a temporary basis by agency and bank staff. Nursing and general practice were identified as the most critical areas of staffing issues (Beech et al., 2019; Nuffield Trust et al., 2018).

In June 2019, the Interim NHS People Plan identified substantial shortages across a wide range of NHS staff groups including GPs, psychiatrists, paramedics, radiographers and dentists. Shortages of nurses were identified as the most urgent issue, with particular shortfalls in mental health, learning disability, primary and community nursing. In hospital and community health services, there were around 40,000 reported vacancies in substantive nursing posts (with around 80% of these shifts covered by agency or bank staff). National Audit Office estimates from early 2020 suggest only a 5% increase in students starting undergraduate nursing degrees 2017–2019 compared to a 25% target.

6.2.1 HCHS workforce

The number of employees in Hospital and Community Health (HCHS) - the area of healthcare employing the vast majority of NHS Workforce - has increased over the period, although the increase was not been uniform across different areas. Overall, there was a 12.8% increase in the number of full-time equivalent (FTE) HCHS staff groups working in NHS Trusts and CCGs between May 2015 and January 2020 (including for example, doctors, doctors in training, nurses and midwives). This compares to just under 9.6% increase in the numbers of professionally qualified clinical staff which

makes up around half of the HCHS workforce, over the same period (**Figure 13**). Prior to these increases, there were falls in the HCHS workforce under the Coalition, with a fall of almost 1% in the total HCHS workforce between May 2010 to May 2015, and only a 2.9% increase in the number of professionally qualified clinical staff. Looking at the second decade of the 21st century as a whole, the number of FTE HCHS staff grew by 11.9% while the professionally qualified staff by 12.8% between May 2010 and January 2020³⁴.

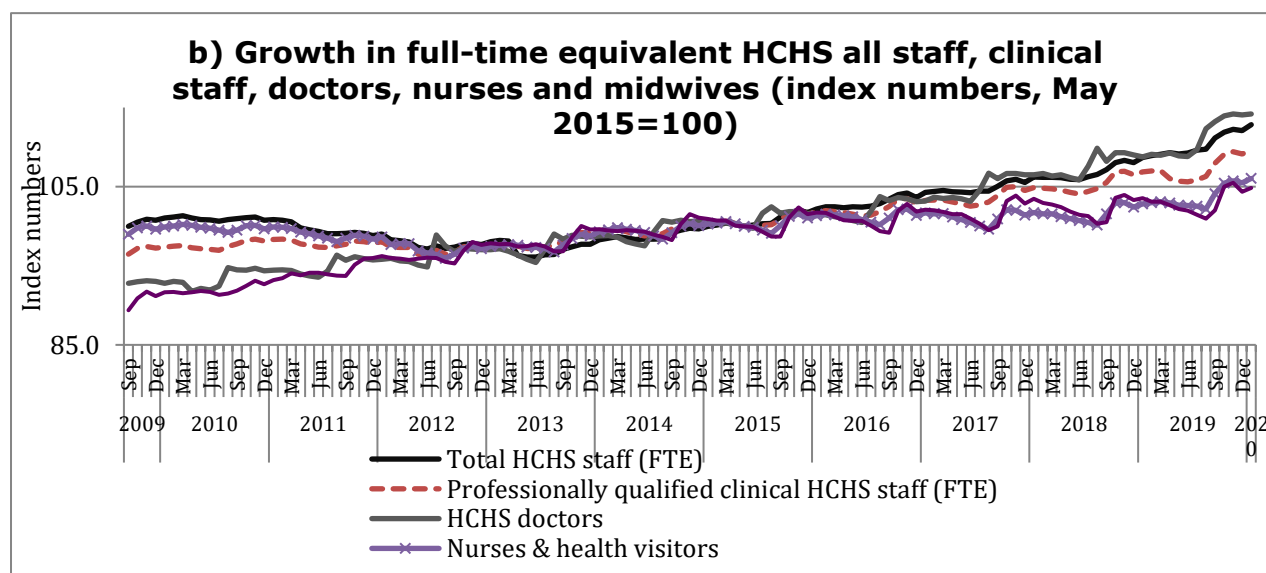
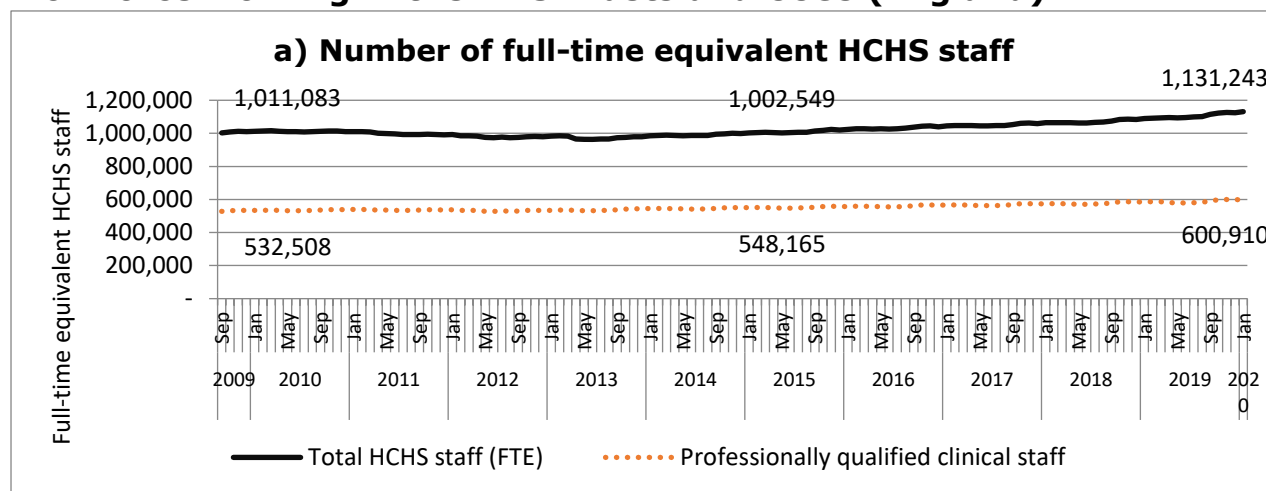
There were increases in the number of HCHS doctors and the number of consultants between May 2015 and January 2020 (14.2% and 17.1%) respectively. The number of speciality doctors and the number of doctors entering specialist training (core training) also increased (23% and 58%). However, overall, there was a much slower growth and even a decline in the number of doctors in training, with number of doctors in Foundation year 1 increasing by only 2.2%, while the number of doctors in foundation year 2 fell by 13.2% (**Figure 13** and Online Appendix Table 13).

Buchan et al (2019) highlight contrasting trends in the number of nurses in hospital and community settings. The latest figures show that between May 2015 and January 2020 the growth in number of nurses/health visitors and midwives was slower than the growth in the overall HCHS workforce. The number of nurses and health visitors increased by 6% over this period and the number of midwives by 4.8% (see Figure 14). Moreover, the relatively small increase in the numbers of nurses and health visitors since 2015 follows a period of stagnation, with only a 0.1% increase between May 2010 and May 2015. Moreover, the overall increase in the number of nurses masks wide variation by area of nursing. While the overall number of nurses and health visiting staff in England increased by 6% between May 2015 and January 2020, it was only after August 2019 that we saw increasing numbers of mental health nurses and community health nurses. Consequently, the increase in their numbers over the entire period (May 2015 to January 2020) is negligible (see Figure 14). In some areas of nursing, numbers have actually declined since 2015. Between May 2015 and January 2020 the number of nurses in the area of learning disability fell by 9.8%, following a long-term decline over the preceding period where the numbers declined by 32.9% between May 2010 and May 2015. The

³⁴ Authors' calculations using NHS Digital (2020i), taking the Coalition period to be represented by figures from May 2010 to May 2015 and current Conservative government period from May 2015 to latest figures available at the time of writing - January 2020.

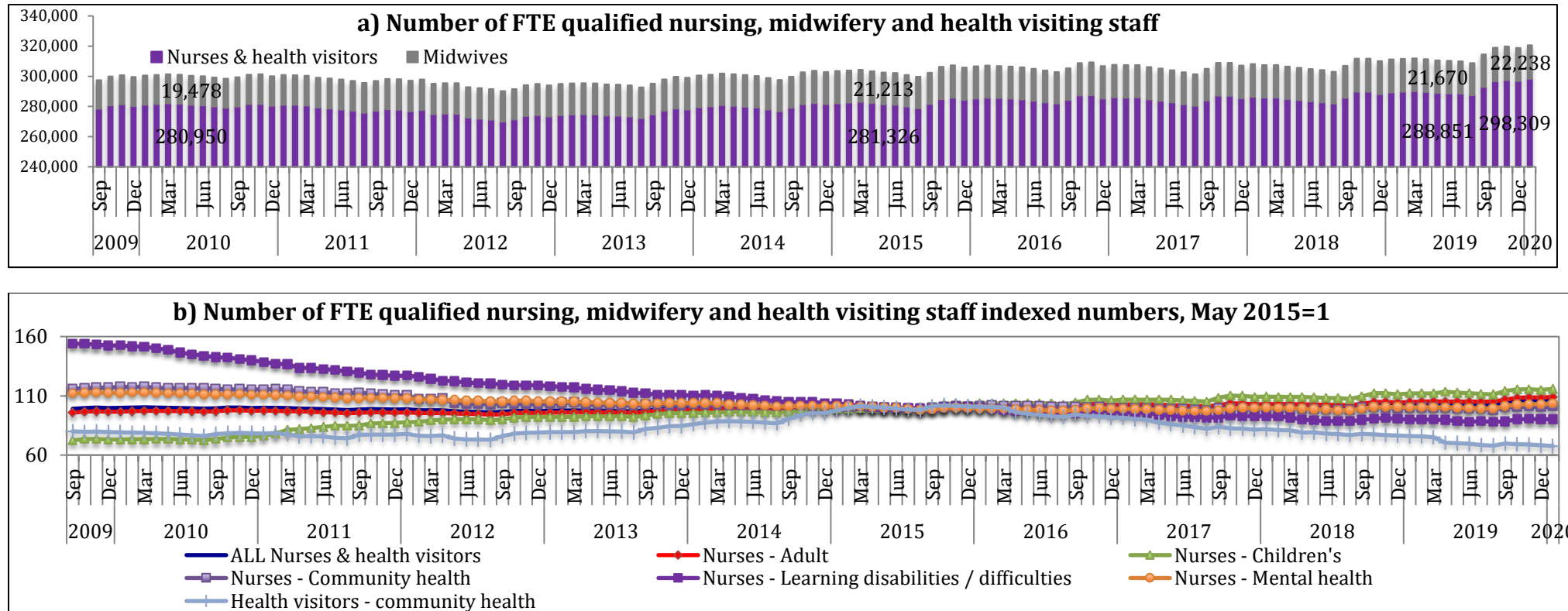
number of health visitors in community health has fell after May 2015 (by 32.4% by January 2020), reversing a 28.3% increase in the previous period (Figure 14).

Figure 13 Hospital and Community Health Service (HCHS) workforce working in the NHS Trusts and CCGs (England)



Source: Authors' calculations using figures from NHS Digital (2020i). Notes: For panel (a): 1) The data labels refer to the numbers in May 2010, May 2015 and February 2020. 2) These figures exclude GPs and their staff as well the Independent Healthcare Provider workforce. For panel (b): These figures exclude GPs and their staff as well the Independent Healthcare Provider workforce

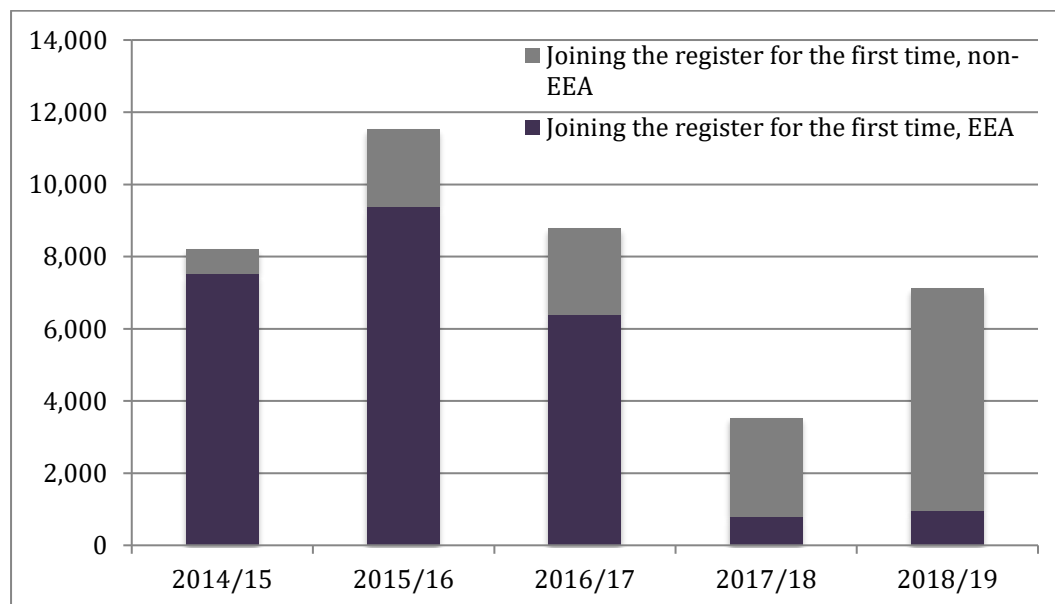
Figure 14 Number of full-time equivalent (FTE) qualified nursing, midwifery and health visiting staff in NHS Trusts and CCGs, HCHS workforce, September 2009 – January 2020 (England)



Source: NHS Digital (2020i), HCHS staff (excluding Doctors) by Staff Groups, Care Setting and Level in Trusts and CCGs - Full Time Equivalent. Notes: For panel (a): Data labels this chart are provided for May 2010, May 2015, May 2019 and the last available data point at the time of writing, January 2020. For panel (b): Small number of nurses in category 'Nurses – other training' is not shown here.

One of the major problems facing nursing recruitment is attracting nurses from the EU. While the total number of nurses from EU countries fell post-referendum, it increased from elsewhere, which meant that the total number of overseas nurses increased from 43,807 in September 2015 to 51,138 in March 2019 (National Audit Office, 2020b). Examining the numbers of new nurse registrants with the Nursing and Midwifery Council, which provides an indication of the number of newly recruited nurses, the Health Foundation shows that following a continued increase since 2007/08 in the number of new registrations from EU nurses, the numbers began to fall dramatically even before the UK left EU (The Health Foundation, 2018). The latest figures by the Nursing and Midwifery Council, show that while the number of new registrations from EEA nurses and midwives remained low in 2018/19, just below 970 nurses, it represents a slight upturn on the previous year's figure (Nursing and Midwifery Council, 2019). While decline in the number of new EEA nurses since 2015/16 was accompanied by an increase in the number of nurses from non-EU countries, it was not enough to compensate for the decline in the number of nurses from the EU with the total new registrations from overseas remaining lower in 2018/19 compared to 2015/16 (Figure 15). As the number of new registrations declined since 2015/16, the number of those leaving the register increased: from 1,981 in 2015/16 to 3,333 in 2018/19 among the EEA and from 1,710 to 1,730 among the non-EEA.

Figure 15 Number of nurses and midwives from EEA/non-EEA joining the register for the first time, 2014/15 to 2018/19, England



Source: Reproduced by the authors using underlying figures from Nursing and Midwifery Council (2019)

6.2.2 GPs

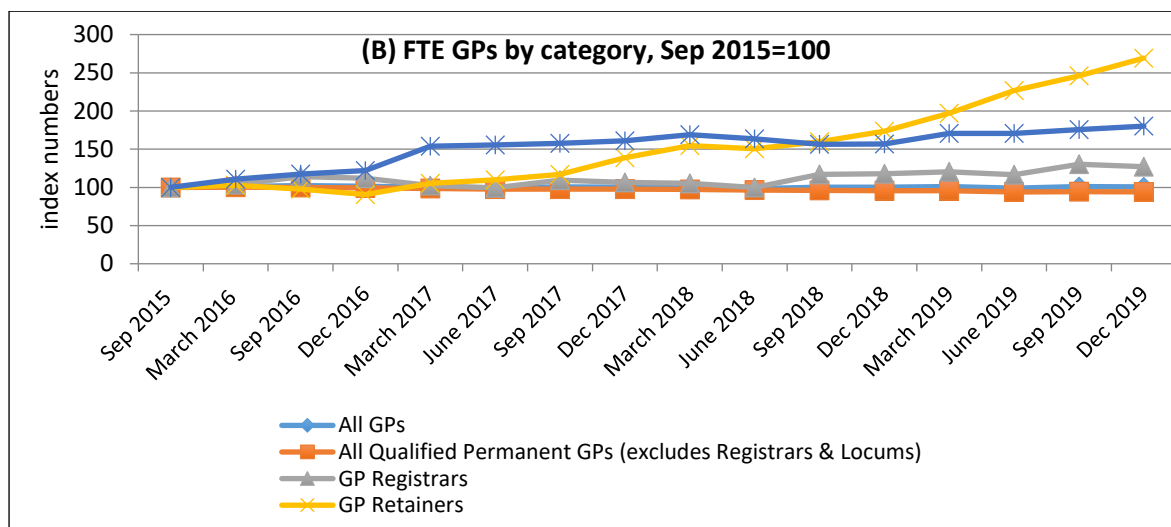
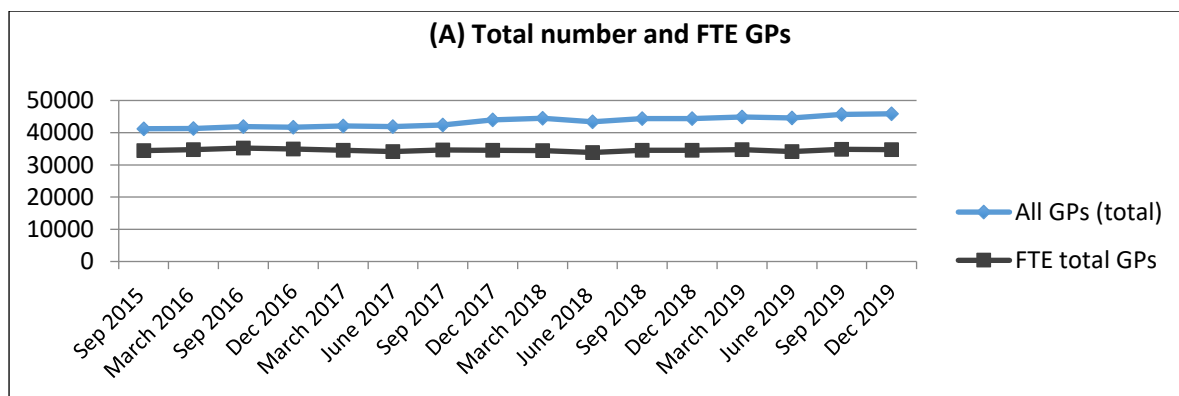
The health secretary back in 2015, Jeremy Hunt, pledged to generate 5,000 more doctors in general practice by 2020, the goal sustained within the NHS England's "General Practice Forward View" in 2016 (NHS England, 2020d) – 5,000 extra FTE doctors by 2020 compared to 2014. In May 2019, the Guardian reported that while numbers of GP training posts had increased, and the number of unfilled places fell, the overall progress in getting more GPs was hindered by the high drop-out rates and more GPs retiring early (The Guardian, 2019).

NHS Digital figures (see panel (a) in Figure 16) show that total number of all GPs increased by 4,395 between September 2015 and September 2019³⁵, but this figure does not reflect the full picture of the potential of the GPs to treat a growing population. If we look at the full-time equivalent figures on the same chart instead, we see that the number of FTE GPs increased only by 433 GPs between September 2015 and September 2019 (equivalent of 1.3%). Within these figures, the number of fully qualified permanent FTE GPs (excluding Locums and GP Registrars) had fallen by 4%, while the number of GP Registrars, or trainee GPs had increased by 27% over this period (see panel (b) in Figure 16).

The slow increase in the number of GPs since 2015 is also reflected in the decline in the number of GP practices and an increase in the average number of patients at these practices between September 2015 and December 2019 (Figure 16).

Figure 16 Number and growth in the number of GPs (total and FTE) and by category, September 2015 to December 2019, England

³⁵ While we have the number of GPs as of December 2019, NHS Digital's advice is to compare the same quarters across the years.



Source: Authors' analysis of NHS Digital (2020h) data, Table 1a and Table 1b
 Notes: the latest figures available at the time of writing were for 31st of March 2020 (here, we report to 31st December 2019). COVID-19 pandemic had impacted the data collection for the latest period and NHS Digital is GP figures are considered an under-reporting during this period, and will be updated at a later date. We therefore data collected pre-COVID-19 here.

There is no consistent long-term trend of the numbers of GPs. We use figures from two different publications by NHS Digital to assess the trends in GP numbers over the current government's term and the previous government³⁶. Annual figures for the period 2009 to 2014 on a consistent basis show there was a small increase in the total number of FTE GP practitioners (excluding Registrars, Retainers and Locums) from 32,111 to 32,628, representing a 1.6% increase over the whole period (authors'

³⁶ Since 2015, NHS Digital reports on quarterly figures for GP workforce while the preceding data collection took place once a year and represented a snapshot in time, which meant it was often out-dated due to changes in the workforce (NHS Digital, n.d.).

calculations using NHS Digital (2018)). Number of FTE GPs (excluding Registrars, Retainers and Locums) for the current period (September 2015 to September 2019) show a 6.2% decline in their numbers (authors' calculations using NHS Digital (2020h)). These figures therefore suggest an increase in the annual number of GPs (excluding Registrars, Retainers and Locums) over the period between 2009 and 2014 and a decline in the quarterly figures for the period between September 2015 and September 2019.

Comparing trends in GP numbers relative to the population growth, The Nuffield Trust shows that from 2010, for the first time since the 1960s³⁷, the number of GPs per 100,000 people began to fall in England (and UK overall), accelerating in the period between 2014 and 2018. The author attributes this trend to the fact that inadequate numbers of doctors were trained and joined the NHS in the past, with insufficient recruitment from abroad and early retirement of certain practitioners (Palmer, 2019).

The trends in GP numbers relative to the size of the population differ across the country by area but also by deprivation. Areas with already low concentration of GPs per 100,000 people in the population, such as North West London and East of England, saw the highest fall in their numbers between 2016 and 2018 (Palmer, 2019). The Nuffield Trust also reveals significant differences in the staffing numbers of GPs relative to the size of the population by deprivation in England (Nuffield Trust, 2018). There were 47 GPs per 100,000 patients in the most deprived fifth of CCGs compared to 53 in the least deprived fifth, which meant that each GP in the poorest areas had on average of 2,125 patients on their list while each GP in the most affluent areas had 1,869 (Nuffield Trust, 2018).

6.2.3 Vacancies

The Health Foundation reported that in 2015 there was already a shortfall of 22,000 nurses caring for adult patients (Buchan et al., 2017). Under various scenarios they predicted a shortfall of between 14,000 and 38,000 for nurses caring for adults and for *all* nurses – a shortfall of between 5,000 and 42,000 by 2020 (Buchan et al., 2017). By the first quarter of 2019-20, 12% empty full-time equivalent registered nurse posts were being reported, equating to 43,617 nurses (Mitchell, 2019). Nuffield Trust analysis of NHS provisional vacancy statistics covering February 2015 to

³⁷ The author uses data from NHS Digital (2013 to 2017) and OHE figures for time trend further back

September 2018 suggested that there were nearly 94,000 full-time equivalent advertised vacancies in hospital and community services alone between July and September 2018, equating to an estimated shortfall of 8% (around 1 in 12 posts) (Rolewics & Palmer, 2019). In June 2019, the Interim NHS People Plan identified substantial shortages across a wide range of NHS staff groups including GPs, psychiatrists, paramedics, radiographers and dentists. Shortages of nurses were identified as the most urgent issue, with particular shortfalls in mental health, learning disability, primary and community nursing. In hospital and community health services, there were around 40,000 reported vacancies in substantive nursing posts (with around 80% of these shifts covered by agency or bank staff) (NHS, 2019m). The Royal College of Midwives identified a shortfall of 2,500 midwives in England in 2019 (Royal College of Midwives, 2019). National Audit Office estimates from early 2020 suggested only a 5% increase in students starting undergraduate nursing degrees 2017–2019 compared to a 25% target.

In order to combat nursing shortages, trusts have paid expensive overtime or temporary staff nursing staff either from the bank or from external agencies (Open University, 2018). A report by NHS in June 2019 confirms that among the 40,000 substantive nursing vacancies reported within hospital and community health services around 80% shifts were covered by agency or bank staff (NHS, 2019m). Retention and a fall in applications for nursing degrees were identified as key factors in widening the gap between demand and supply of nurses, while staff expressed concerns about adverse Brexit effects on the nursing workforce (Open University, 2018). National Audit Office estimates from early 2020 suggest only a 5% increase in students starting undergraduate nursing degrees 2017–2019 compared to a 25% target for 2018-19 and 2019-20 (National Audit Office, 2020b).

A modelling exercise undertaken in 2019 by the King's Fund, Nuffield Trust and The Health Foundation suggested the projected nurse staffing shortfall would almost double between 2018/19 and 2023/24 to 70,000 FTE nurses in the absence of international recruitment, and would rise to over 100,000 FTE staff by 2028/29. The study highlighted high numbers of staff leaving the profession pre-retirement (Beech et al., 2019, pp. 104–105) (see Figure 15) and the issue of GP's pensions has exacerbated shortages during the current period. The Health Foundation have identified retention of the NHS overall workforce as one of the major issues and suggested that improving retention of staff could be one of the ways to combat shortfall in the "staffing numbers (compared with training new staff), reducing vacancies, and improving staff stability" (Buchan et al., 2019). The need

for regional workforce incentives has also moved up the health agenda. The Nuffield Trust study referred to above found that HCHS shortages for the period between July and September 2018 were distributed unevenly across the country and across groups of staff (Rolewics & Palmer, 2019). The highest percentage of full-time equivalent vacancies were located in Thames Valley (12%) while the lowest - in the North East (4%). In absolute terms, the highest numbers of advertised vacancies were in 'nursing and midwifery' – at nearly 40,000 – as well as in 'administrative and clerical', which had over 20,000 vacancies (Rolewics & Palmer, 2019). Buchan et al. (2017) found the NHS trust-level staff stability rate to be particularly low in London, while a census of vacant consultant posts undertaken by the Royal College of Physicians highlight an urban: rural split, with shortages particularly apparent in remote coastal areas (Royal College of Physicians, 2019).

The Conservative Manifesto 2019 pledged a 50,000 increase in the number of nurses by 2025 (Conservatives, 2019). This was followed by the announcement of free bursaries from September 2020 which are expected to benefit more than 35,000 student nurses a year (The Prime Minister's Office, 2019). The bursaries were announced by Boris Johnson in December 2019, to the value of £5,000 to all student nurses and a further £3,000 for specialist disciplines or areas where it is hard to recruit them (The Prime Minister's Office, 2019). Speaking to The Independent, The Royal College of Nursing called it a welcome "first step" in addressing the shortages in nursing but highlighted that the barriers in accessing training still remained with tuition fees having to be paid upfront (Stone, 2019). Following below target increase in new nursing students in England between 2017 and 2019 (3%), figures published in early 2020 show that the number of applicants had increased from 30,650 in 2019 to 32,490 in 2020, representing a 6% increase in one year. However, the total number of applicants in 2020 was still below the 33,810 applicants in 2017 (National Audit Office, 2020b).

6.2.4 International comparisons

The UK's relative position in international OECD tables relating to the density of practicing physicians per 1,000 population remained consistently low across the period 2000-2019. In 2019, the UK recorded 2.95 practising physicians per 1,000 population, up marginally from 2.65 at the beginning of the decade, but with the UK's relative ranking being 21 out of 25 OECD countries for which data was available. This compared to 3.17 per 1,000 population in France, 4.39 per 1,000 population in Germany and 2.64 per 1,000 population in the United States (OECD, 2020f).

The UK's relative position in relation to the number of nurses per 1,000 population in international OECD health data was more variable between 2000-2019. In 2019, the number of practicing nurses in the UK stood at 8.2 per 1,000 population compared to 13.95 per 1,000 population in Germany and 6.16 per 1,000 population in Italy, with the UK occupying a mid-position amongst 22 OECD countries for which data was available. In the UK, this represented a marginally downward trend during the second decade of the 21st century, from a figure of 8.41 per 1,000 population in 2010, whereas in Germany there was an increase from 11.52 at the beginning of the decade (OECD, 2020e).

6.3 Pressures on the healthcare system

Looking across a variety of indicators, there were multiple signs of increasing pressure on the system.

6.3.1 Healthcare activities

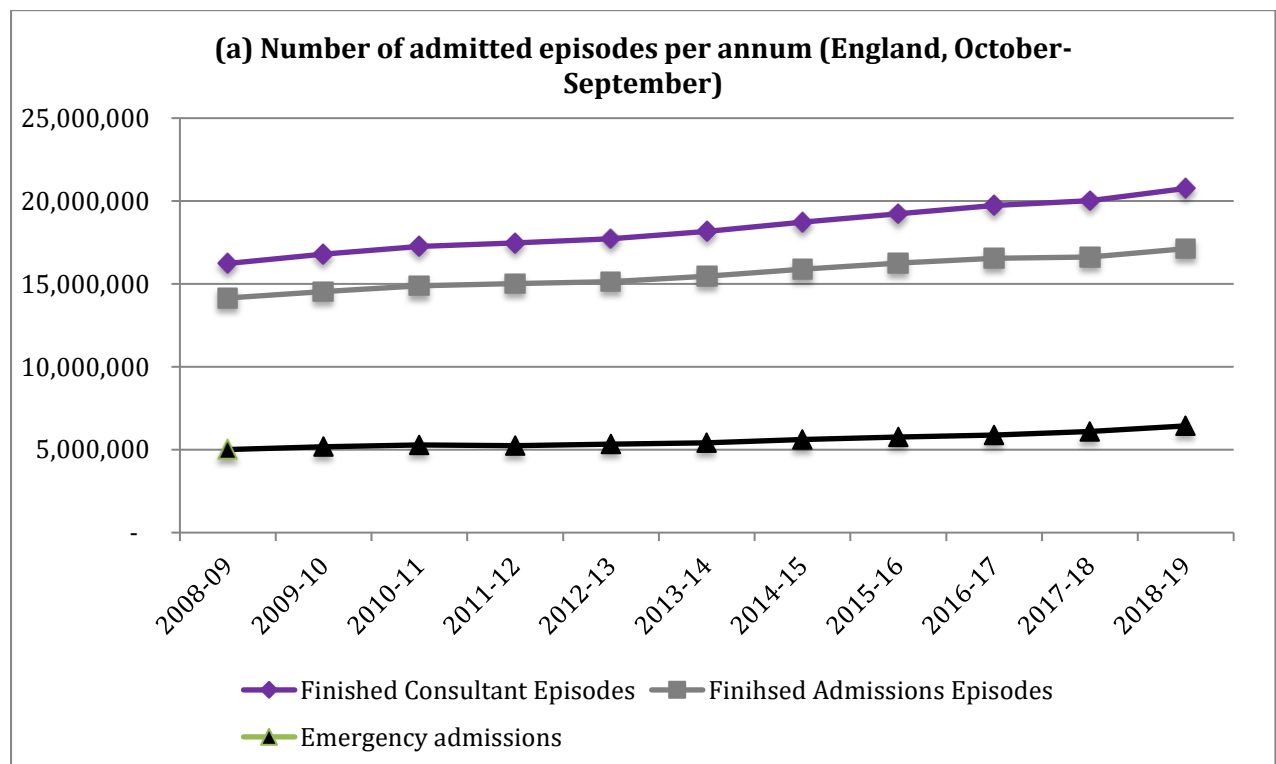
NHS Digital reports on activities within English NHS hospitals and on NHS-commissioned activity within the independent sector. These data are drawn from Hospital Episodes Statistics (covering all admissions, appointments and attendances for patients)³⁸ and 'Adult Critical Care' hospital data. They show a continued increase in the Hospital Admitted Patient Care activity with an increase in the number of Finished Consultant Episodes (FCE) and Finished Admission Episodes (FAE), which reached 20.8 million and 17.1 million by 2018/19, respectively (see Figure 17). The total number of consultant episodes in 2018-19 was an increase of almost 11% from 2014-15 figures, while the total number of finished admission episodes increased by around 8% over this period. Emergency admissions grew faster than total admissions: from 5.6 to 6.4 million (a 15% increase) (see Figure 17). In 2014/15, the number of Finished Consultant Episodes which required a procedure, or an intervention, was 11,341,913. By 2019-20, this figure had increased to 12,164,264 - an increase of more than 7%. (NHS Digital, 2015b, 2019c).

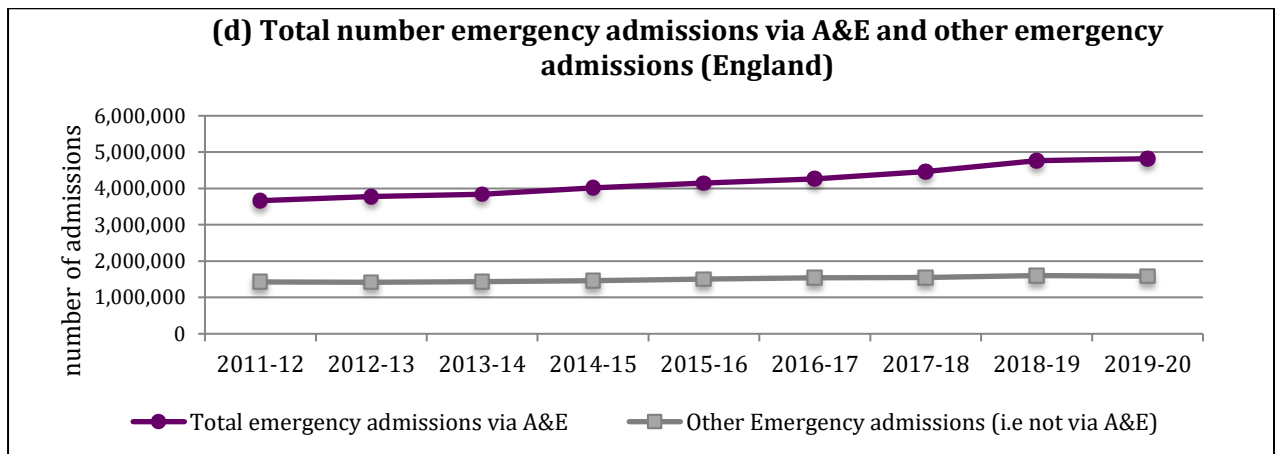
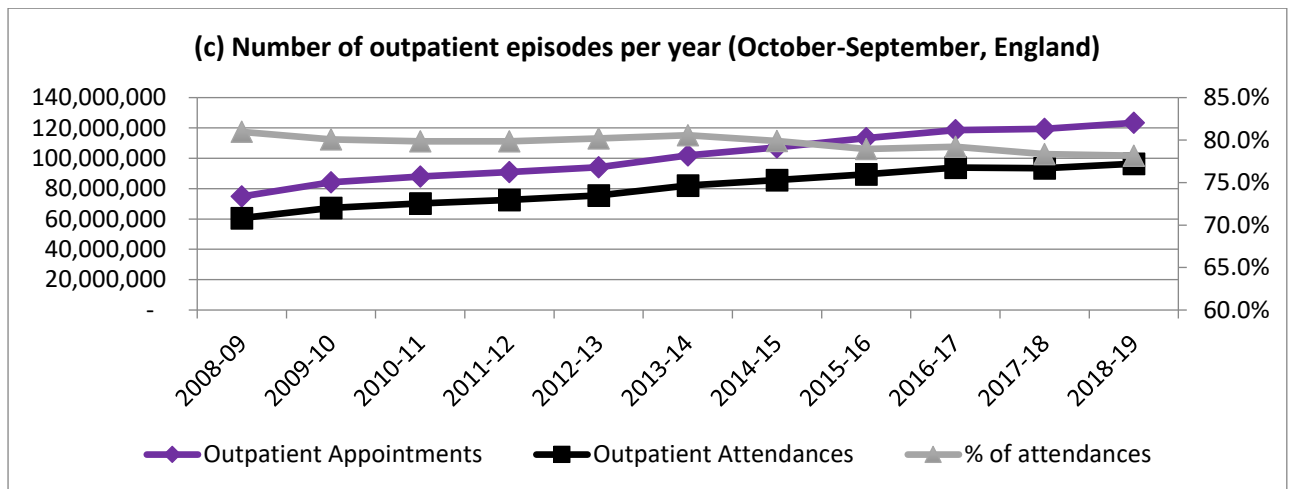
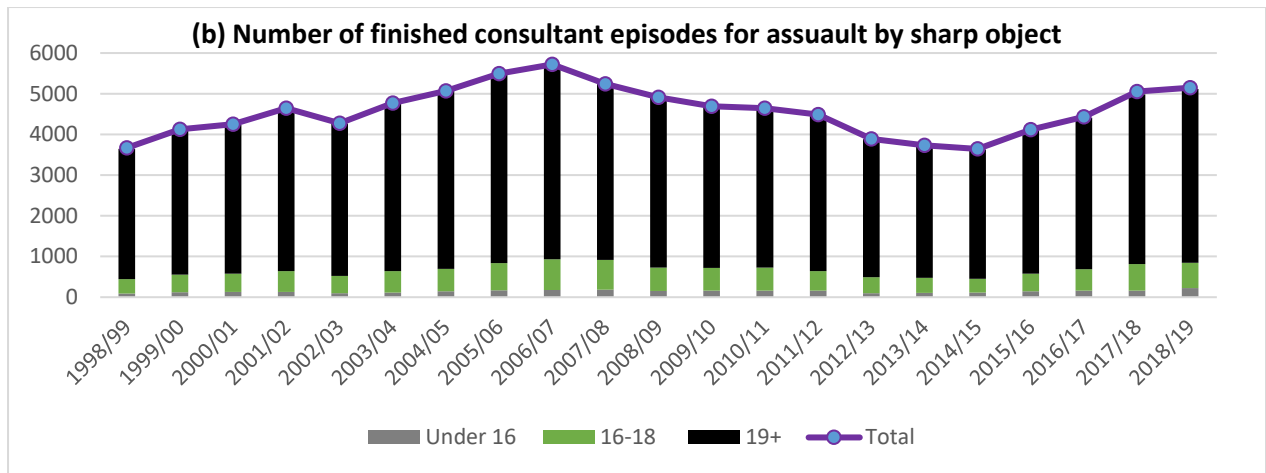
The number of outpatient appointments and attendances also increased between May 2016 and early 2020, as did the number of A&E attendances. In December 2019, 2,181,024 people in England attended A&E departments, a 17% increase compared to December 2015, with 25 million

³⁸Note that these data refer to 'episodes of care' rather than the number of patients, where an episode is a period of care for a patient under a consultant at a hospital.

A&E attendances in 2019-20 as a whole (Figure 82 - online appendix). A&E was also being increasingly attended by older adults. Between 2009-10 and 2018-19, A&E attendance remained stable or decreased for all age groups between 0 and 64 years. However, during the same period, A&E attendance increased by 1.6 percentage points for 65 to 79 year olds and 0.9 percentage points for people aged 80 or over (Table 22 - online appendix).

Figure 17 Inpatient, outpatient and emergency episodes (various indicators)





Source: panel (a) NHS Digital (2019c), Hospital admitted patient care activity; panel (b) (NHS, 2019i); panel (c) NHS Digital (2019d), report table 1 and authors' calculations of proportion of attendances; panel (d) Adjusted: Quarterly & Annual Time Series in NHS (n.d.-a) A&E Attendances and Emergency Admissions 2020-21. **Notes:** Knife crime figures

includes hospital admissions only and therefore reflects the most serious incidents of knife crime.

Underlying social problems including knife crime exacerbated pressures on the NHS between 2014/15 and 2019/20. The SPDO physical safety and security paper (Cooper & Lacey, 2019) examines trends in knife crime over this period and police recorded crime statistics show that in the year ending June 2019, there were 44,076 offences involving a knife or sharp instrument (excluding Greater Manchester Police), the highest recorded number of offences since recording began in 2011 and a 7% increase on the previous year (ONS, 2019d). This increase is corroborated by hospital admissions data. In 2018/19, there were 5,149 finished consultant episodes due to assault by sharp object in English hospitals, a 41% increase compared to 2014/15 and the highest recorded figure since 2007/08. In 2018/19, 222 people aged under 16 were admitted to hospital for assault by sharp object, the highest recorded figure for this age group since recording began in 1998/99 (Figure 17). While hospital admissions due to assault by sharp object make up a small proportion of overall hospital admissions, they place significant pressure on hospital resources and NHS staff wellbeing (NHS, 2019k). The recent increase in the incidence of knife crime prompted the NHS to appoint its first clinical director of violence reduction in June 2019 (NHS, 2019k).

In terms of hospital critical care activities, in 2018-19 there were 291,679 useable critical care records (relating to completed episodes of care and so excluding ongoing patient episodes) (NHS, 2019j). This was an increase from 2014-15, when there were 259,691, although with no further increases after 2016-17.

6.3.2 Avoidable admissions, reablement services and delayed discharges

NHS England produces an indicator on emergency admissions for acute conditions that should not usually require hospital admission. This indicator is interpreted as a measure of avoidable admissions since it captures and reflects admissions that could potentially have been avoided if the patient had been better managed in primary care or as an outpatient (for example, urinary infections, which can become acute if they are undiagnosed). It can be interpreted as an indication that primary and community services are not effectively limiting the need for hospital admission (Age UK, 2019abc). NHS Digital data shows that there has been an increasing trend since the mid-2000s, with an increase from 839.7 per 100,000 population in 2003/4 to 1414.2 per 100,000 population in 2018/19 (NHS Digital, 2020g).

Reablement and rehabilitation services after discharge are intended to prevent hospital re-admissions. The proportion of older people receiving these services after discharge from hospital fell from a high of 3.3 per cent in 2013/14 to 2.7 per cent in 2016/17. The proportion then increased to 2.8 percent in 2018/19 (the last full year of data prior to the pandemic) falling back to 2.6 percent in 2019/20 - both figures being well below the 2013/14 peak (Age UK, 2019abc; Burchardt et al., 2020b; NHS Digital, 2020b).

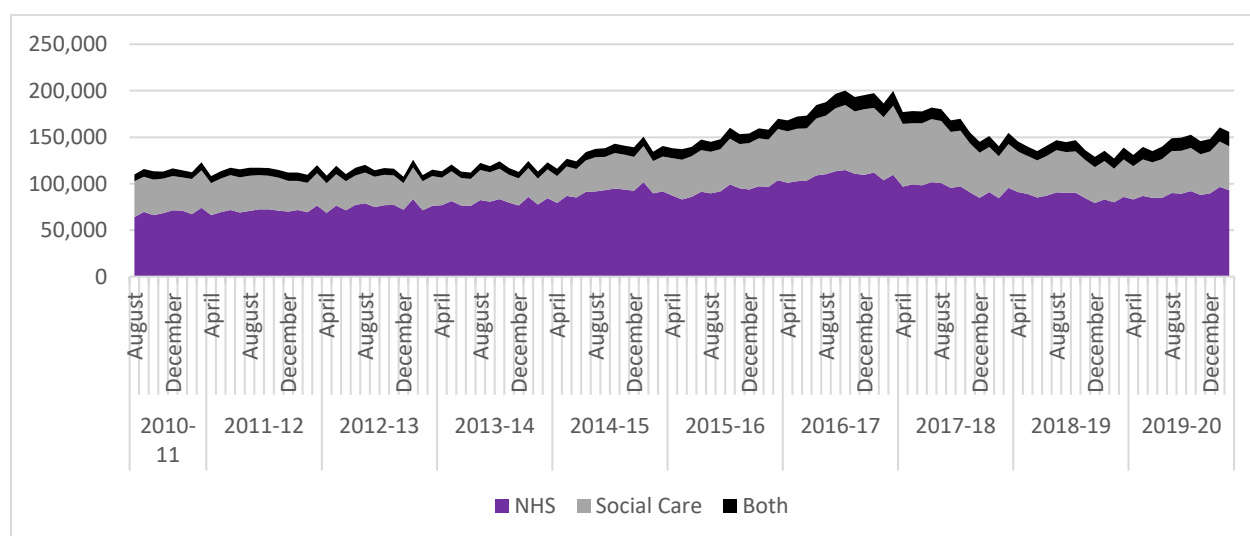
Delayed transfers of care occur when a patient is assessed as being ready for discharge but continues to occupy a hospital bed, for example, because arrangements for their onward care, support or accommodation are not in place. Delayed transfers can increase pressures on hospital resources and staff as well as having adverse impacts on patient health including increased risk of infection, reduced motivation and decreased muscle strength for older patients (King's Fund, 2018a). Data on delayed transfers can reflect the efficiency of discharge management processes as well as the extent of the co-ordination and integration between hospital services and other parts of the NHS (including non-acute, community, rehabilitation and reablement services) and the social care system (including community, residential and nursing care) as well as pressures on the health and care systems (King's Fund, 2018a; Age UK 2019abc).

Reducing delayed transfers has been a key priority in a series of recent policies and funding streams, including the Better Care Fund, which seeks to improve collaboration between NHS organisations, local authorities and social care (NHS, 2019d; Burchardt et al., 2020b). The Department of Health specified a target in its mandate to NHS England for 2017-18 that delayed transfers would occupy no more than 3.5% of hospital bed days by September 2017 (Department of Health, 2018b). However, analysis by the King's Fund shows that while the health and care system was effective in reducing delayed transfers between September 2016 and 2017, the 3.5% target substantially not met and in Q1 of 2017-18, 5.2% of beds were occupied by delayed transfers of care. The NHS 2018-19 Winter Planning update stated that reductions in delayed transfers between February 2017 and July 2018 freed up around 2200 beds (NHS, 2018b). Figure 18 shows that delayed transfers peaked at 200,095 days per month in October 2016-17 and improved somewhat to 127,207 days per months in February 2018-

19. However, prior to the COVID-19 pandemic, between April and December 2019, delayed transfers were trending upward again³⁹.

In November 2019-20, the main reason for delayed transfers of care was 'awaiting care package in own home'. The second most common reason was 'awaiting further non-acute NHS care' and the third was 'awaiting nursing home placement or availability'. The number of patients delayed due to 'awaiting care package in own home' and 'awaiting nursing home placement or availability' increased dramatically between 2014 and 2017 (Figure 86 - online appendix).

Figure 18 Number of delayed transfer of care days per month, Acute and Non-Acute, by responsible organisation, England, August 2010 to February 2020



Source: Delayed transfers of care (NHS, 2019g)

Notes:

1. Prior to August 2010, the number of delayed days was collected weekly and was un-validated management information.
2. The move from a weekly to a monthly collection led to some misunderstanding of the guidance from organisations during the first few months. The MSitDT figures for these months have been revised, however, the Aug-10 to Oct-10 delayed days data may still potentially contain under-counting errors.

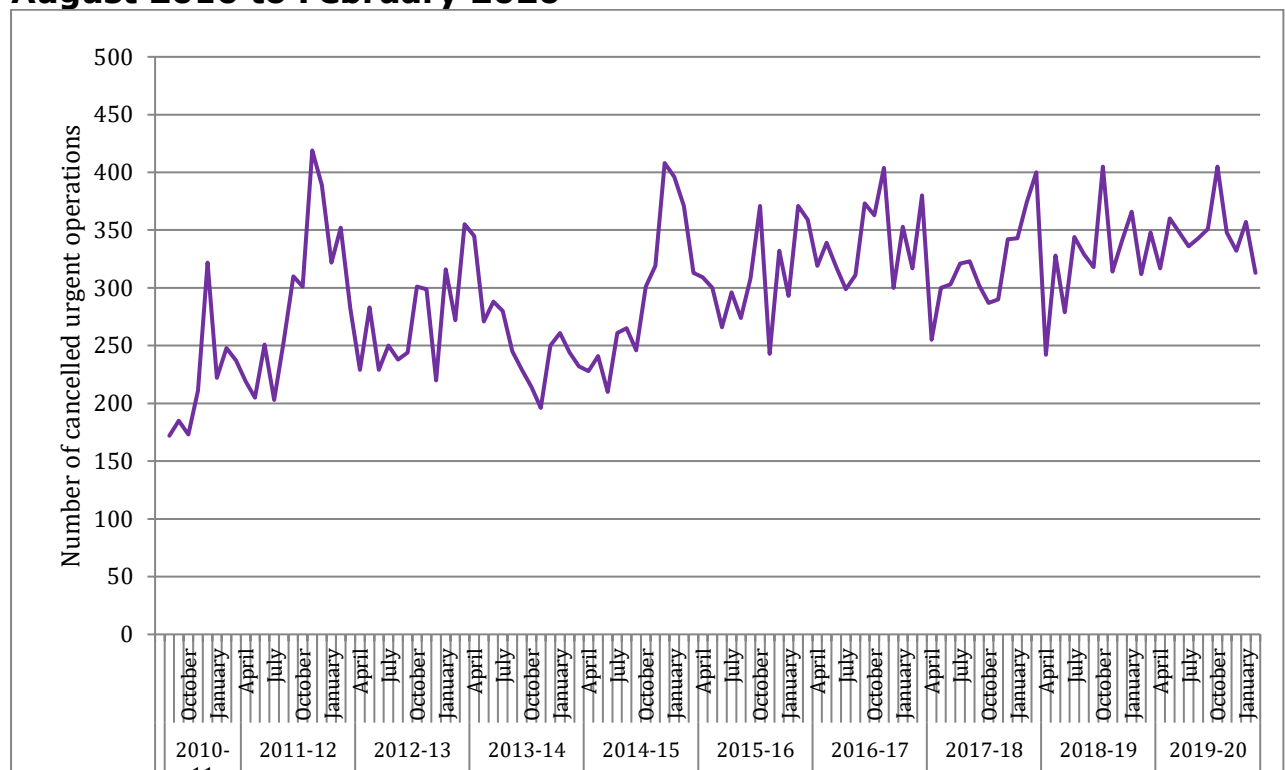
³⁹ 'Average Number of People Delayed per Day' was previously titled 'DTCOC Beds' and this has been renamed following feedback to increase clarity on what this represents. It is calculated by dividing the total number of delayed days in the month by the number of calendar days to derive how many patients/beds this represents per day.

6.3.3 Cancelled operations

The number of operations that are cancelled was on an upward trend during the second decade of the 21st century with further increases between May 2015 and early 2020.

- Looking at data on the cancellation of non-urgent (elective) surgery, the average number of operations cancelled was more than 20,000 each quarter throughout the course of 2016/17, 2017/18 and 2018/19. On the eve of the pandemic, the number of cancelled nonurgent (elective) operations was high compared with previous quarters, with 23,000 nonurgent (elective) operations cancelled in the three months between September 2019 and December 2019 (NHS, 2020).
- Looking at data for the cancellation of urgent surgery, in 2014-15, the average monthly number of cancelled urgent operations stood 297 (covering April 2014 to March 2015). On the eve of the pandemic, the average for the period from April 2019 to February 2020 was 346, with more than 400 urgent operations cancelled in October 2019 (Figure 19).

Figure 19 Number of urgent operations cancelled each month, August 2010 to February 2020



Source: Monthly figures from NHS (n.d.-b) *Critical Care Bed Capacity and Urgent Operations Cancelled 2019-20 Data*

6.3.4 Bed occupancy rates

The total number of hospital beds that are available has been declining during the second decade of the 21st century (OECD, 2020d; Royal College of Emergency Medicine, 2016). There are three key reasons underlying this trend. First, the reduction in the total number of hospital beds available reflects a conscious strategy to move away from hospital provision to care in the community for some conditions (for example, psychiatric conditions). Second, for a variety of procedures and treatments, there has been a shift towards day treatment without the need for an overnight stay and shorter stays, reducing the need for overnight beds in some instances. Third, within a constrained overall budget, efforts to expand primary and community services have involved conscious ambitions to reduce the share of hospital services in overall healthcare expenditure, and arguably this has also been a factor.

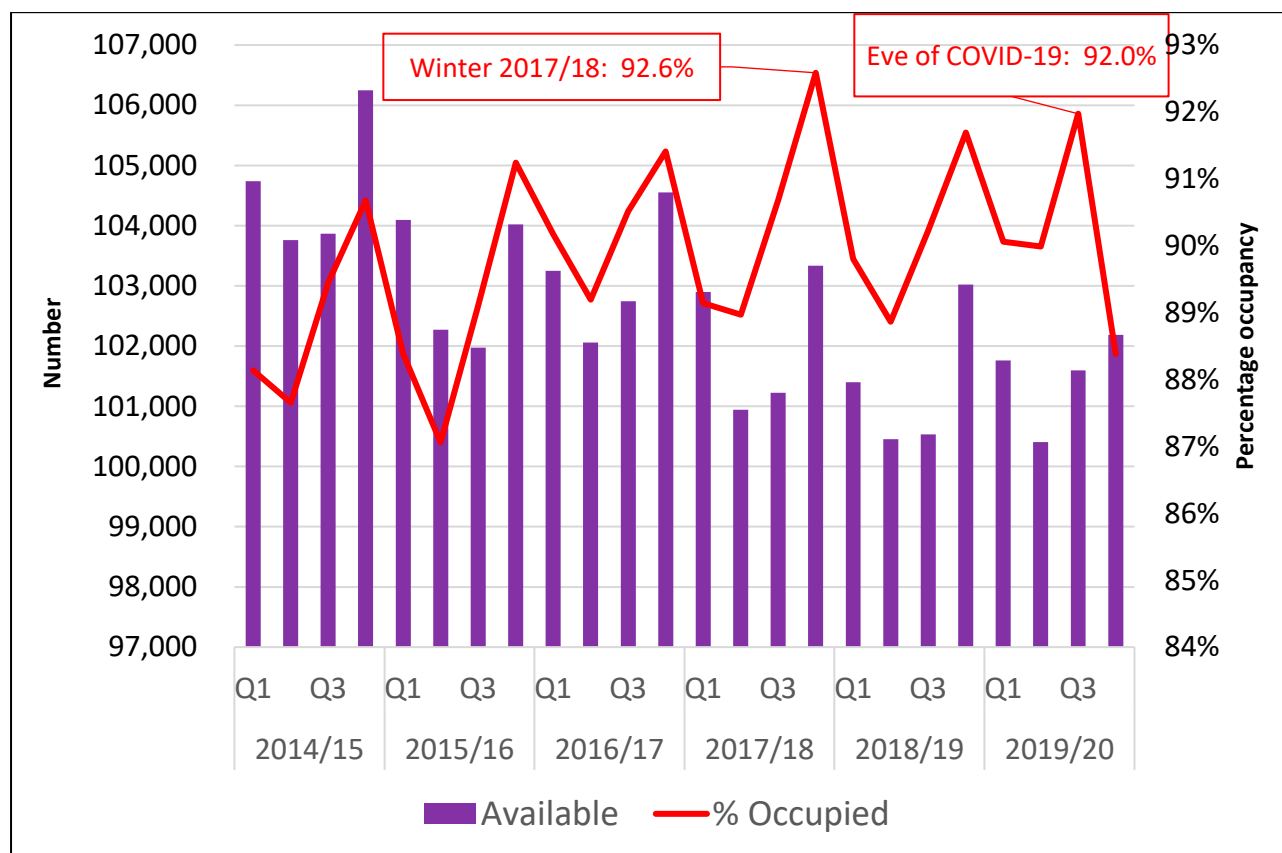
Against this background, debates have emerged about safe levels of hospital bed occupancy. Some analyses have suggested that high levels of bed occupancy are a sign of systemic efficiency. However, high hospital bed occupancy rates can have adverse impacts on health outcomes and operational performance. Firstly, higher occupancy rates and overcrowding in general wards have been identified as key factors in the spread of infections in hospitals (Kaier et al., 2010) Secondly, high occupancy rates resulting in a lack of beds is a key cause in overcrowding in emergency departments, which then has a negative impact on quality, safety, and efficiency measures (NHS Improvement, 2015). Lastly, research shows there is a link between a lack of hospital beds and poor performance in key waiting times (Ewbank et al., 2020). In 2018, a NICE guideline on safe occupancy rates cited the NAO as recommending no higher than 85% occupancy rates, stating that “the National Audit Office has suggested that hospitals with average bed occupancy levels above 85% can expect to have regular bed shortages, periodic bed crises and increased numbers of health care-acquired infections”. The NICE guideline reviewed the available evidence and recommended a maximum of 90% bed occupancy and recommended that hospitals plan capacity to minimise the risks associated with occupancy rates exceeding 90% (National Institute for Health and Care Excellence, 2018).

Repeated concerns were expressed about high bed occupancy rates between the General Election in May 2015 and the eve of the pandemic in early 2020. For example:

- The Royal College of Emergency Medicine (2016) identified that daytime occupancy was frequently exceeding 100 per cent in many hospitals.
- The Royal College of Emergency Medicine (2016) noted that increasing bed occupancy is a predictable outcome of a combination of decreasing number of beds and increasing demand.
- The King's Fund (Ewbank et al., 2020) reported a growing shortage of hospital beds in England, with overnight general and acute bed occupancy averaging 90.7 per cent in 2019-20 (based on Q1-Q3 averages). This represented an increase from average occupancy rates of 87.1 per cent in 2010-11. Moreover, occupancy rates increased during the winter months of 2018-19, regularly averaging above 95 per cent. Ewbank et al noted that these statistics are likely under-estimates, as overnight beds are recorded at midnight.

NHS England (2020a) provides quarterly data on average NHS general and overnight bed availability and occupancy in England. Looking at trends between 2014/15-2019/20, the total number of general and acute overnight bed availability was variable by quarter but was been on a overall downward trend. Average NHS general and acute bed occupancy rates peaked in the fourth quarter of 2017/18 (January – March). This coincided with a period of high excess winter deaths (on which see section 7.4.5). Average NHS general and acute bed occupancy rates were at their second highest during the period on the eve of the COVID-19 pandemic in the third quarter of 2019-20 (October – December) (see Figure 20).

Figure 20 Average daily general and acute overnight hospital bed availability and occupancy (England 2014/15 to 2019/20)

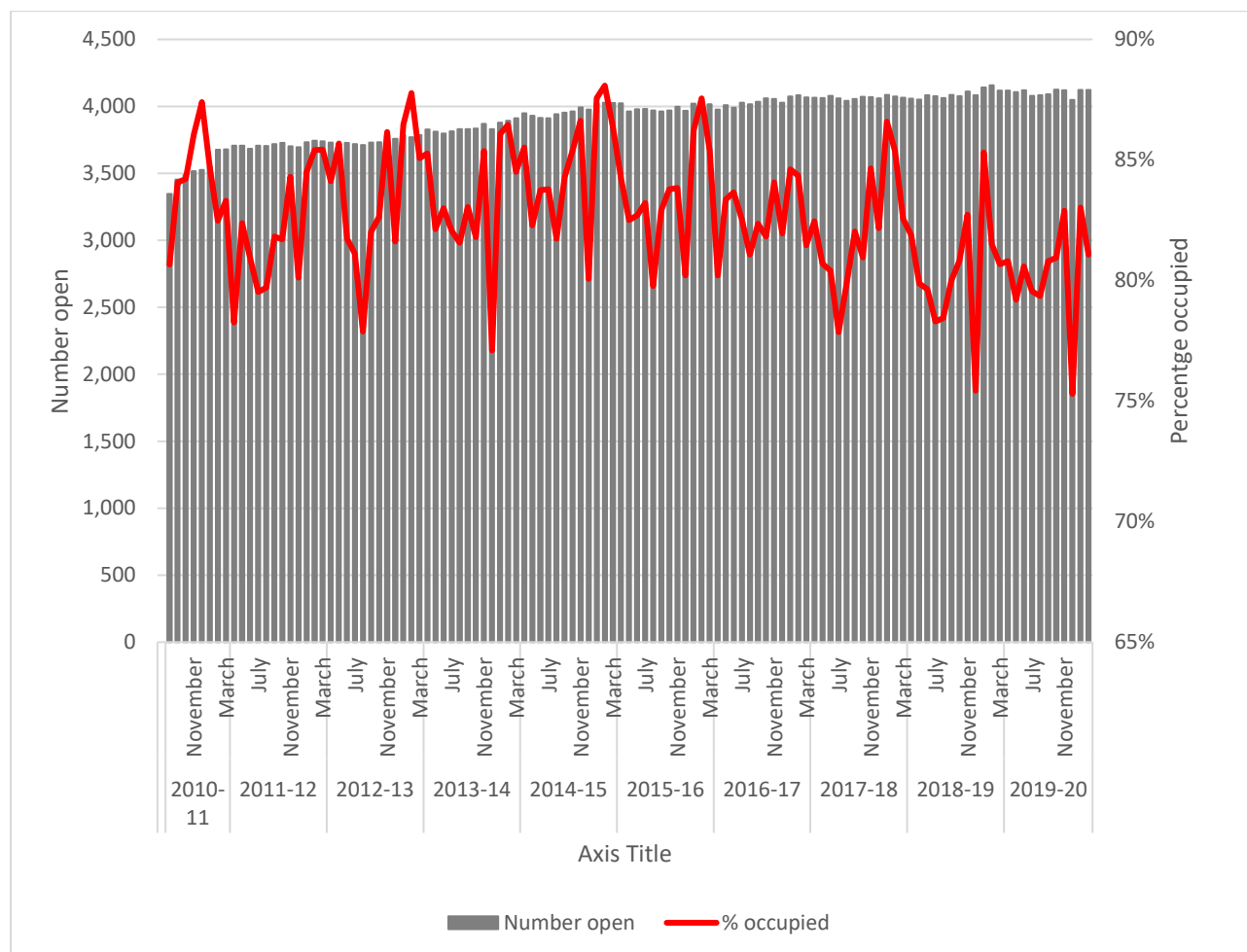


Source: NHS England (2020a)

Note: The figures for general and acute bed availability for Q4 2015/16, and for Q3 and Q4 2016/17, are estimates.

In contrast to the overall number of beds and most categories of beds, analysis by the King’s Fund (Anandaciva, 2020) shows that the number of critical care beds in the NHS was on an upward trend during the 2010s. In January 2020, there were approximately 5,900 critical care beds (adult, paediatric and neonatal), 13% higher than the number of critical beds in January 2011 (5,200) (Anandaciva, 2020). The proportion of occupied adult critical care beds remained high on the eve of the pandemic (more than 80% in January and February 2020) although occupancy pressures had been easing compared to 2014/15 (Figure 21).

Figure 21 Number of adult critical beds that are open and percentage occupied (England 2010/11-2019/20)



Source: Monthly figures from NHS (n.d.-b) *Critical Care Bed Capacity and Urgent Operations Cancelled 2019-20 Data*

Notes

1. Data relating to the number of available and occupied critical care beds is a monthly snapshot taken at midnight on the last Thursday of each month and can fluctuate from month to month.
2. Before February 2011, data on Critical Care beds were published bi-annually in a separate collection. Therefore, Critical Care data published until January 2011 should be treated with a degree of caution.
3. In November 2018, NHS England published refreshed guidance for MSitRep which provided clarification on the definition for Paediatric Intensive Care (PIC) bed availability and occupancy. This update was made to ensure definitions reflected the latest terminology and Paediatric Intensive Care Society (PICS) standards, to improve data quality and address overcounting of PIC beds (including possible inclusion of some high dependency unit (HDU, level 2) beds. Therefore, PIC bed availability data from November 2018 shows a step change, with the 339 reported beds in November 2018 being approximately 130 – 140 lower than previously in 2018-19 (around 460-470 available beds).

6.3.5 International comparisons

International comparisons of the number of hospital beds relative to the population are challenging to interpret for several reasons. In some countries, a strategy of reducing the availability of some categories of hospital beds (for example, psychiatric beds) has been pursued as care in the community has been promoted; while as noted in section 6.3, in England reducing the availability of acute beds has in part been an intentional strategy as the number of day procedures has increased and the share of spending on hospital services relative to primary and community services has intentionally been constrained. Additional recording differences in identifying critical care units and in relation to the inclusion of neonatal and paediatric intensive care units, as well as variations in relation to private sector coverage, all affect the reliability and validity of international comparisons of the availability of intensive care beds.

Nevertheless, with these multiple caveats, the available international data can be informative to establish broad patterns and trends. Data on hospital beds from OECD (2020d), OECD (2021), Statista (2020) and the King's Fund (Anandaciva, 2020; Ewbank et al., 2020 and OECD 2021 and OECD 2022) show that the UK ranks in the middle to the bottom end of international comparisons for the availability of hospital beds and intensive care beds relative to the population.

- The OECD health database records the **total number of hospital beds** by country. This series is defined as covering beds in general hospitals, mental health and substance abuse hospitals and other speciality hospitals, including curative (or acute) care beds, rehabilitative care beds, long-term care beds and other beds in hospitals, and is presented as a total and for curative (acute) care and psychiatric care. Data for the UK only includes beds in public hospitals. The UK is estimated as having 2.5 hospital beds per 1,000 population in 2019, down from 2.9 per 1,000 population in 2009. The trend data shows the total number of hospital beds per 1,000 population declining in many European countries between 2009 and 2019 - including in Germany, France, Italy and Denmark - as well as in the US. The UK's relative position fell in relative terms over this period from a mid-low position to a low position, with the UK ranking 31 out of 36 OECD countries with data available on the eve of the COVID-19 pandemic in 2019. Germany recorded 7.91 beds per 1000 population in 2019 while Japan - which consistently recorded a high density of beds - recording 12.84 beds per 1000 population, while

the US - at 2.8 hospital beds per 1000 population - was just above the UK rate but at the lower end of the range for OECD countries (OECD (2020d)).

- While the total number of **critical care beds** was on an increasing trajectory prior to the pandemic, research from the King's Fund (Ewbank et al., 2020) and Anandaciva (2020) shows that the UK has historically ranked lower than other European countries on rates of critical care beds. In this data, 'critical care' beds refer to intensive care and high dependency beds and findings draw on Bittner et al (2013) which identified that in 2013, the UK had the joint second-lowest number of ICU beds (7.5) per 100,000 population, lagging behind Germany (31.8) and Austria (27). OECD data on the number of adult intensive care beds in 2019 (or nearest year for which data was available) records Germany as having 28.2 per 100,000 and the US 21.6 per 100,000 whereas England is recorded as having 7.3 per 100,000, with a footnote clarifying that the England data covers critical care beds only.
- OECD data on the number of adult **intensive care beds per 100,000 population** for 2019 included in the OECD (2022) Europe database records 7.2 acute beds per 100,000 population for England. As the dataset indicates that the figure for England covers critical care only, comparisons with other countries are complex. However, rates of 28.2 per 100,000 in Germany and 27.3 per 100,000 in France are included in the database.
- **Curative (acute) hospital occupancy rates** for England in 2019 included in the OECD (2022) Health at a Glance Europe database show rates for England in 2019 at 90.2% - joint highest (with Ireland) by a considerable margin.

The UK is also in a low international position in terms of terms of international data on the number of CT scanners, MRI units and PET scanners per head, and in terms of CT, MRI and Pet scan exams undertaken per head, although both indicators exclude equipment outside of hospitals (OECD 2021). The UK performs well in terms of rates of mammography screening in women aged 50-69 within the past two years, although in terms of diagnosis of breast cancer at an early stage, the UK performs poorly and substantially below the US and Germany (OECD 2021).

The first wave of the COVID-19 pandemic also put the spotlight on lower numbers of ventilators per head of the population compared to other comparator countries, with other countries such as Germany ahead in

terms of testing capacity and the manufacturing base to upscale at speed testing and PPE equipment.

- Statistics recorded in the *Our World in Data* Database suggested that the UK had 12 medical ventilators per 100,000 population on the eve of the pandemic, in 2019, compared to 48 per 100,000 in the UK and 19 in South Korea, and 8 in France and 36 in Germany in 2015 (Our World in Data, n.d.).
- Kings Fund estimates suggested that the NHS had 7,400 mechanical ventilators available in the English NHS in early March 2020, with the government setting a target for 18,000 ventilators to be available by end June 2020 (Anandaciva, 2020).

6.4 Healthcare waiting times

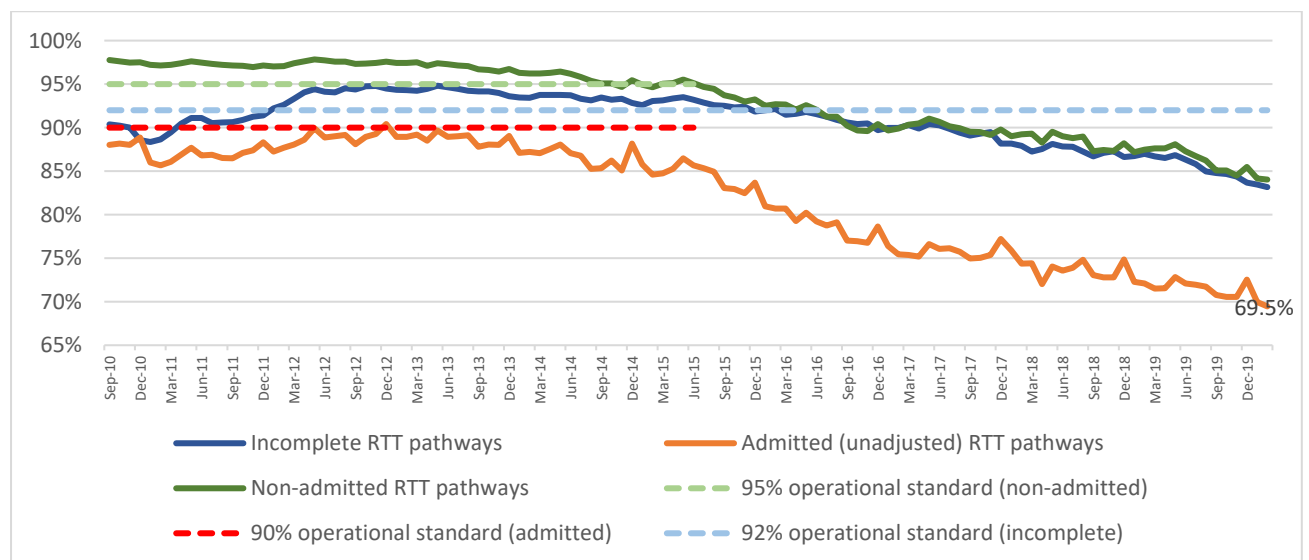
Increasing waiting times reflect a basic misalignment between increases in the supply of healthcare on the one hand, and need and demand for healthcare on the other. During the first decade of the 21st century, the growth of public expenditure on health and the supply side expansion in healthcare resulted in falling waiting times and the realignment of supply, need and demand after the high waiting times periods recorded during the 1990s. However, waiting times began to deteriorate again under the Coalition between May 2010 and May 2015, coinciding with a sustained period of constrained resource settlements and slower healthcare input and output growth. Following the May 2015 General Election, waiting times continued to deteriorate across a range of indicators between 2014/15 and the eve of the COVID-19 pandemic in early 2020. This section reviews trend data on NHS waiting times in relation to referral to treatment (RTT), diagnostic tests, A&E, cancer care and mental health services. Note that a review of NHS performance targets was announced by the government in June 2018 and an Interim Report proposing new access standards across mental health services, cancer care and elective and emergency care was subsequently published. The new standards were being tested in selected hospital trusts across England prior to the pandemic (NHS, 2019e).

6.4.1 Referral to Treatment

The NHS Constitution states that patients have a right to wait no longer than 18 weeks from referral by a GP or other practitioner to treatment (RTT). Figure 22 shows the proportion of patients in England referred to

treatment within 18 weeks between September 2010 and February 2020 for admitted pathways (patient pathways requiring hospital admission), non-admitted pathways (patient pathways not requiring hospital admission) and incomplete pathways (for patients still waiting for treatment at the end of the month). Outcomes deteriorated substantially between 2014/15 and the eve of the COVID-19 pandemic. In February 2020, 69.5% were referred to treatment within 18 weeks for admitted pathways, 84.0% for non-admitted pathways and 83.2% for incomplete pathways. The 92% operational standard for incomplete pathways was not met between February 2016 and early 2020. While operational standards were abolished for admitted and non-admitted pathways due to concerns that they created perverse incentives (Iacobucci, 2015), performance in both pathways deteriorated (Figure 22). RTT performance targets vary across UK constituent countries. In March 2019, no UK country met its RTT target (Appleby, 2019).

Figure 22 Referral to Treatment (RTT) waiting times: proportion referred to treatment within 18 weeks, England, September 2010 to February 2020



Source: Consultant-led referral to treatment waiting times (NHS England, 2021). **Notes:** 1. Median and percentile times are calculated from aggregate data, rather than patient level data, and therefore are only estimates of the position on average waits. 2. Admitted RTT pathways are waiting times for patients whose treatment started during the month and involved admission to hospital. 3. Non-admitted RTT pathways are waiting times for patients whose wait ended during the month for reasons other than an inpatient or day case admission to hospital for treatment. 4. Incomplete RTT pathways are waiting times for patients still waiting to start treatment at the end of the month. 5. Until Sept-15, adjustments were made to admitted RTT pathways for clock pauses, where a patient declined reasonable offers of admission and chose to wait longer. 6. Number of pathways (all) includes RTT pathways with unknown clock starts (e.g. the patient was treated during the month, but the length of time that they waited is unknown). 7. From April 2013, reported consultant-led

RTT waiting times no longer include waiting times for consultant-led sexual health services as they are no longer commissioned by the NHS. Consultant-led sexual health pathways included in the RTT waiting times data prior to April 2013.

Looking beyond performance targets, median waiting times increase for admitted, non-admitted and incomplete pathways. The median waiting time for incomplete RTT pathways was 7.5 weeks in February 2020, which represented an increase of 2 weeks from February 2015. Overall, while trends in median waiting times represent a deterioration in the period since 2010, median waiting times had not returned to the substantially longer waiting times recorded in August in 2007 (the start of the consistent data series on these trends (Figure 78 – online appendix)).

The total number of people waiting for treatment at the end of each month in England increased between 2014/15 and the eve of the pandemic in early 2020. Indeed, after April 2012, this total number was at higher level every month compared to same month in previous year (NHS England & NHS Improvement, n.d.), reaching 4.43 million patients in February 2020 (Figure 79 - online appendix). Looking at the trend over a longer period, the number of patients waiting for treatment dramatically improved from 4.19 million in August 2007 to 2.30 million in January 2009 – a trend which had started in the early 2000s (albeit using a slightly different measure, reporting on which has discontinued⁴⁰). However, these improvements were subsequently reversed in a sign that the NHS was struggling to keep pace with increasing demand during the second decade of the 21st century.

In relation to variation across UK countries, in March 2019, people on an elective waiting list made up 8% of the population in England, 7% in Scotland, 14% in Wales and 21% in Northern Ireland (Appleby, 2019).

6.4.2 Waiting times by treatment type

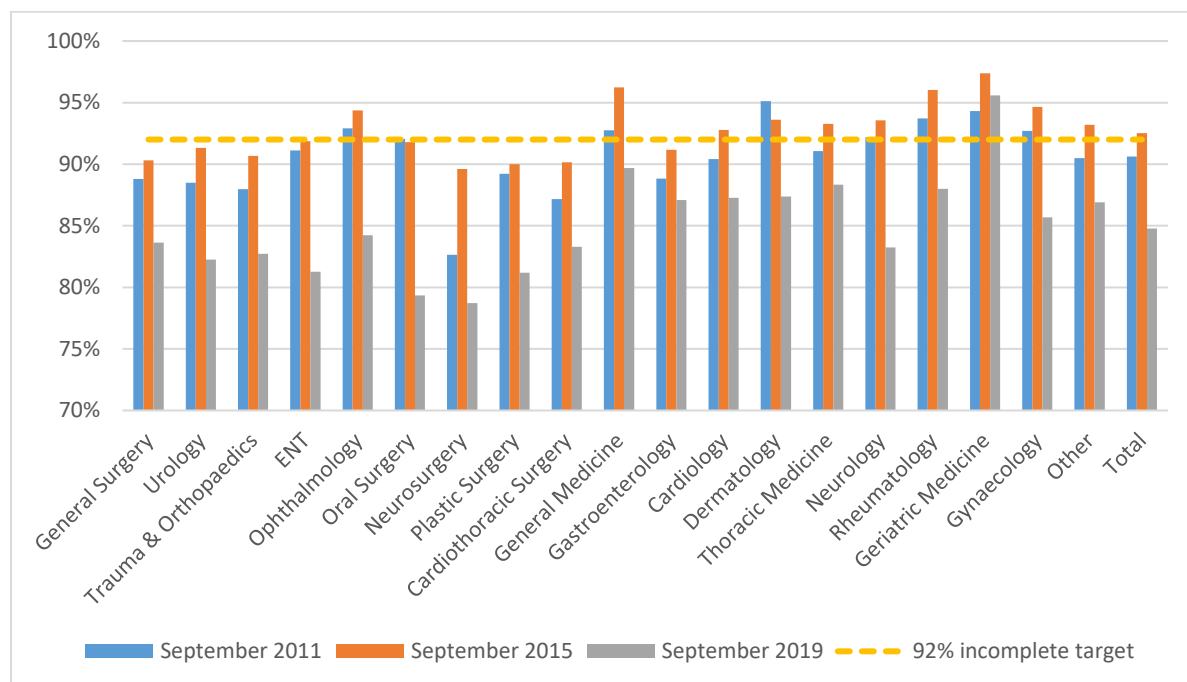
Waiting times for treatment vary across different treatment types. Figure 23 shows performance against the 18-week standard for 19 common treatment types in England. In September 2019, the 92% operational standard for incomplete pathways was only achieved in relation to geriatric medicine (95.6% of incomplete pathways occurred within 18 weeks). The worst performing treatment types were neurosurgery (78.7%), oral

⁴⁰ Department of Health and Social Care (2010).

surgery (79.3%), plastic surgery (81.2%) and ENT (81.3%). Figure 23 also shows the deterioration of waiting times for treatment-types between September 2015 and September 2019. While in September 2019 the 92% operational standard was only met in relation to geriatric medicine, in September 2015 the standard had been met in relation to 10 of the 19 treatment types recorded.

The March 2019 Interim Report on NHS access standards proposed an average (mean) wait target for people on the waiting list as a possible alternative to replace the 18-week threshold target (NHS, 2019f). The Interim Report suggested that an average wait target which focuses on patients at all stages of their pathway may help reduce long waits. This new target was tested in twelve hospital trusts (NHS, 2019e).

Figure 23 Incomplete RTT pathways by treatment type, England, September 2011, 2015 and 2019



Source: Monthly diagnostic data (NHS England, 2020c)

6.4.3 Diagnostic tests

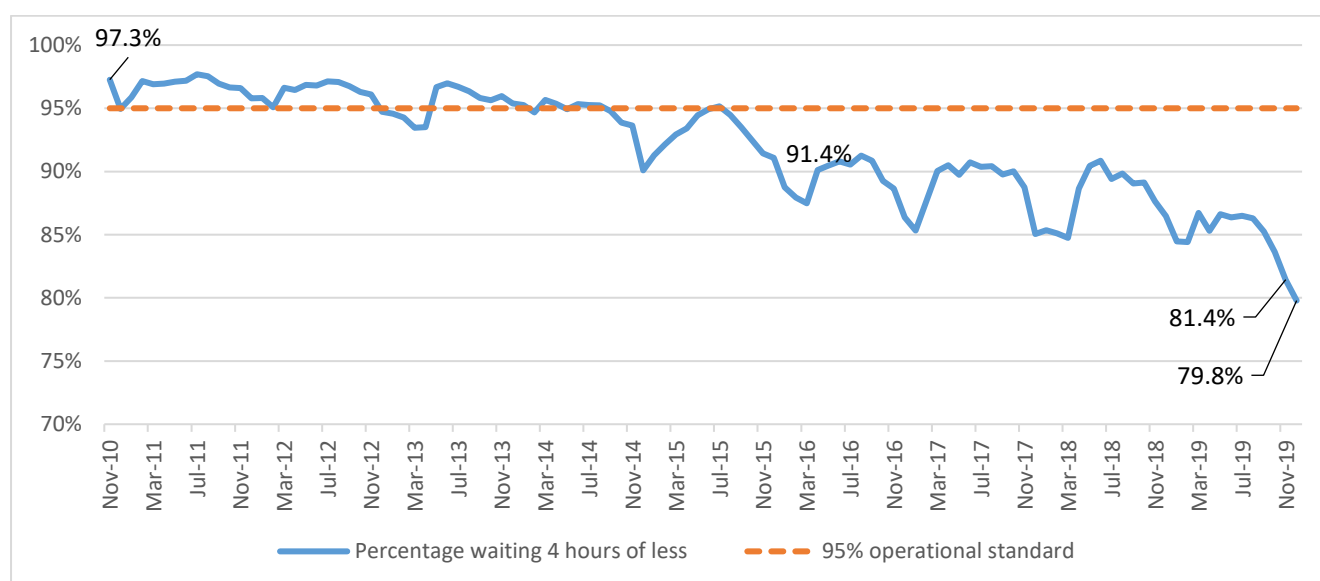
Short waiting times for diagnostic tests can improve access to timely treatment. The 6-week diagnostic test waiting time standard was introduced in March 2008 to support the 18-week RTT target and is included as a pledge within the NHS Constitution. The NHS Operating Framework 2012/13 introduced an operational standard that less than 1% of patients

should wait more than 6-weeks for a diagnostic test. The proportion of patients waiting 6 weeks or more increased between 2017 and 2019. In November 2019, 2.9% of patients waited longer than 6 weeks for a diagnostic test, down from a peak of 4.3% in August 2019 (Figure 80 - online appendix). The August 2019 figure of 4.3% was the highest recorded since March 2008. The 1% 6-week operational standard was not affected by the NHS access standards review.

6.4.4 Accident and Emergency

The 4-hour A&E wait is a pledge within the NHS Constitution and is accompanied by an operational standard that 95% of patients attending A&E should wait four hours or less for admission, transfer or discharge. In November 2019, 81.4% of patients attending A&E in England waited less than 4 hours (Figure 24). This figure represented a decline of 10 percentage points compared to November 2015 figure with the 95% operational standard not met at any point between July 2015 and November 2019. There was then a further slide in December 2019 to 79.8%, the lowest figure since records began.

Figure 24 Percentage waiting 4 hours or less (all) in A&E from arrival to admission, transfer or discharge, adjusted data, England, November 2010 to December 2019



Source: A&E attendances and emergency admissions (NHS, 2019b)

Notes:

1. Figures from Nov 2010 to May 2015 have been estimated from published weekly data by apportioning weeks into calendar months

2. Field testing for new performance standards started in May 2019.
3. Providers undertaking field testing have not been required to submit attendances over 4 hrs data since field testing started in May 2019. The full national historic time series up to April 2019 is available at <https://www.england.nhs.uk/statistics/statistical-work-areas/ae-waiting-times-and-activity/>. In this tab field test trusts performance data has been removed from the whole of the time series as a result the time series here is on a comparable "like for like" basis across the full period from November 2010 up to the latest month.
4. 95% target introduced in Q3 2010/11

The 95% A&E operational standard is shared by each UK constituent country. According to (Appleby, 2019), performance was poor outside of England, with Northern Ireland and Wales not meeting the target between 2012 and 2018 and Scotland not meeting the target between mid-2017 and December 2018. Scottish Government data indicates that performance in Scotland was as at a five year low in December 2019 on the eve of the pandemic (Scottish Government, n.d.-b). Data for Wales also shows a record low performance in December 2019 with only 71.3% of patients waiting less than four hours (StatsWales, n.d.).

Looking beyond performance targets, in December 2019, 396,762 people waited for 4 hours or more in A&E departments across England (Figure 81 – online appendix). At the time, this was the highest figure since records commenced and represented a 162% increase in the number of people waiting 4 hours or more in A&E compared to December 2015.

The March 2019 Interim Report of NHS access standards proposed that the existing four hour A&E wait target be replaced by four new targets addressing time to initial clinical assessment, time to emergency treatment, mean time waiting, and utilisation of same day emergency care (NHS, 2019f). These standards were tested in phases in 14 hospital trusts (NHS, 2019e).

6.4.5 Cancer care

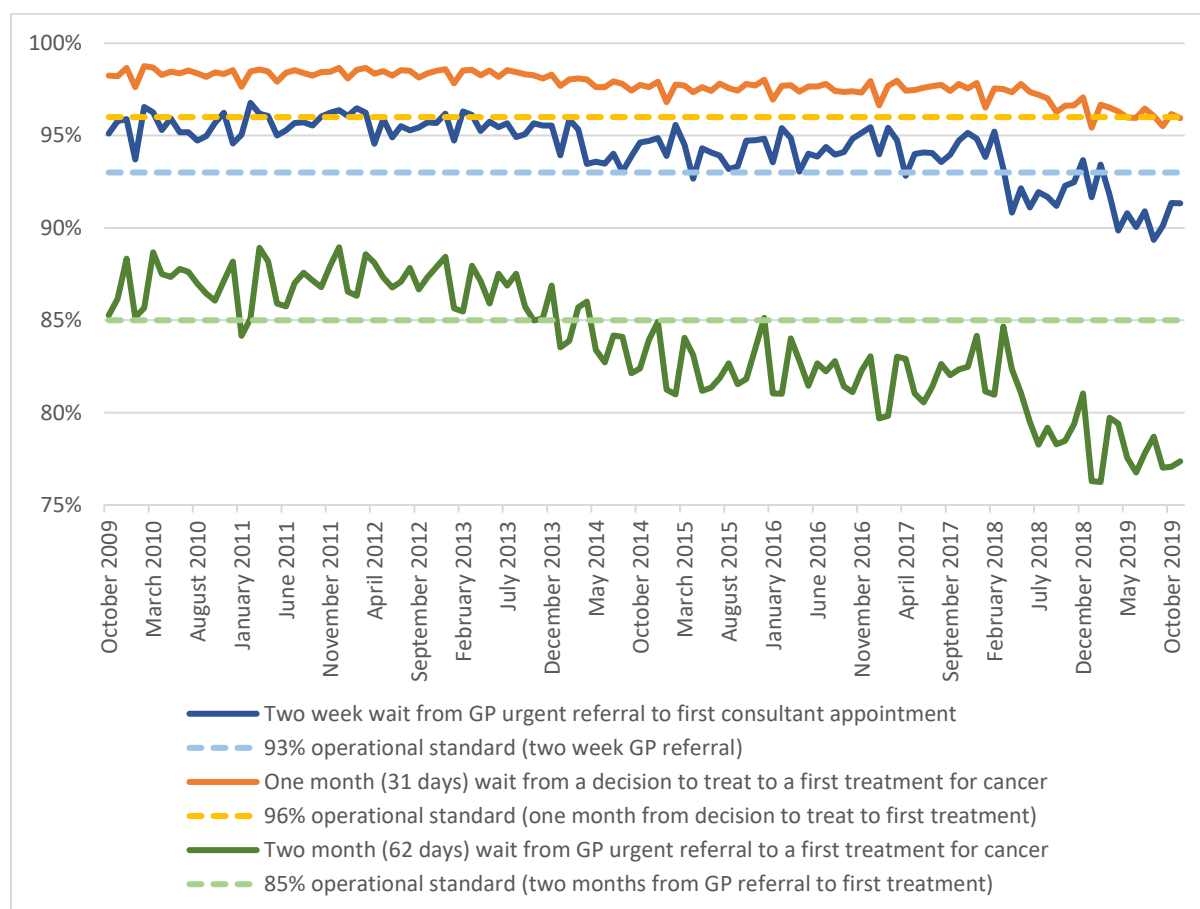
Cancer treatment pathways are monitored by eight operational standards, which are stated as either rights or pledges within the NHS Constitution. The March 2019 Interim Report proposed that these standards should be simplified to three standards, including a 28-day faster diagnosis standard to replace the existing standard of 14-days from urgent GP referral to first specialist appointment and this new standard was tested in eleven hospital trusts (NHS, 2019d, NHS, 2019e). NHS performance across existing cancer treatment standards deteriorated between 2015 and 2019 (Figure 25). In relation to the 93% operational standard for a two week wait between urgent GP referral and first consultant appointment, in November 2019,

91.3% of patients waited two weeks or less, a slight improvement from a historical low of 89.4% in August 2019 but a 3.4 percentage point decline compared to November 2015. The 93% operational standard was not met between February and November 2019.

- In relation to the 96% operational standard for a one month wait between decision to treat and first cancer treatment, in November 2019, 95.9% of patients were treated within one month. While the 96% operational standard was consistently met between October 2009 and December 2018, in a sign of mounting pressure, it was breached in January 2019.
- The 85% operational standard for a two month wait between GP urgent referral and first cancer treatment measures the entire patient pathway. Performance against this standard was particularly poor. In November 2019, 77.4% of patients waited two months between urgent GP referral and first cancer treatment, a 6.1 percentage point deterioration compared to November 2015. The 85% operational standard was not met between December 2015 and November 2019.

Given these trends, the total numbers of patients waiting for cancer treatment increased substantially. For example, in November 2019, 201,395 patients were waiting between a GP urgent cancer referral and a first consultant appointment, down from 221,805 patients in July 2019, but a substantial (52%) increase compared to 145,944 patients in November 2015 (Online Appendix Figure 83).

Figure 25 Monthly cancer waiting times and operational standards, England, October 2009 to November 2019



Source: Cancer waiting times (NHS, 2019d)

6.4.6 Mental health

In 2015/16, NHS England and the Department of Health introduced mental health access and waiting time standards. These specified that 75% of people with common mental health conditions referred to the Improved Access to Psychological Therapies (IAPT) programme should be treated within six weeks of referral and 95% should be treated within 18 weeks of referral (NHS England & Department of Health, 2014). These standards were met between October 2018 and 2019 (online appendix Figure 84). The new mental health standards additionally stated that more than 50% of people experiencing a first psychosis are to be treated within two weeks of referral. Provisional data for September to November 2019 suggested that 74.6% of people with a suspected first episode of psychosis on the

early intervention in psychosis pathway were treated within two weeks of referral (NHS Digital, 2020c). While these developments are to be welcomed, one possible limitation is that mental health waiting time standards based on the first treatment can conceal the fact that more IAPT patients are facing long waits between their first and second treatment. For example, media reports suggested that in 2018-19, half of patients waited more than 28 days and one in six waited more than 90 days between their first and second treatment (Triggle (2019b)).

There was a specific policy focus during the period on children's mental health (c.f. section 4.4) and in 2015, NHS England introduced the standard that, by 2020, 95% of children and young people referred for an eating disorder would receive treatment within one week for urgent cases and four weeks for routine cases (NHS England, 2015). The 95% target had not been met on the eve of the COVID-19 pandemic for either urgent or non-urgent cases (Figure 85), with only 75.1 % receiving treatment within one week in urgent cases and 86% of routine cases within four weeks in the second quarter of 2019/20.

In addition, a commitment was made to ensure an additional 70,000 children and young people with a diagnosable mental health condition accessed treatment per year by March 2020/2021. This was estimated to be approximately 35% of need based on the 2004 ONS prevalence survey. A standard of 34% in 2019/20 was specified, with 36.1% of children and young people accessing treatment by NHS funded community services with at least two contacts in Q3 of 2019/20 (NHS England, n.d.b). However, the prevalence of poor mental health amongst children and young people was estimated to be higher than in 2017 than in 2014, with data from the survey of Mental Health of Children and Young People indicating an upward trend in the proportion of children in England aged 5 to 15 that experience poor mental health (c.f. section 7.2.3). Therefore, while the specified standard was met, outcomes against this indicator demonstrate the extent of high unmet need for mental health support amongst children and young people.

6.4.7 International comparisons

International comparisons using health indicators should be treated with caution, particularly where data is subjective and self-reported, since both recognition of health problems and expectations in relation to windows of treatment may vary between countries and social groups. Nevertheless, the available international data on self-reported unmet need for healthcare resulting from long waiting lists and waiting times can nevertheless reveal some broad patterns and trends. In the 2016 European Quality of Life

Survey, 61% of UK residents reported that they experienced difficulties accessing healthcare due to delays in getting an appointment, the highest rate of any country and close to double the EU average of 38% (Table 43). In addition, EU-SILC data shows that the UK's international position in relation to unmet need for a medical examination due to waiting lists has deteriorated in recent years. In 2010, the UK ranked equal 18 (with Greece) out of 28 EU countries with 0.9% of respondents indicating that they had an unmet need for a medical examination with 'waiting list' identified as the underlying reason. While a break in the series reported for the UK should be noted, it is nevertheless informative that in the 2018 data, this proportion had risen to 4.3% and the UK's relative position had deteriorated to 26th out of 28 EU countries.

6.5 Healthcare quality

6.5.1 Inspection and inquiry evidence

On the eve of the COVID-19 pandemic, the 2019 Annual State of Health and Care Assessment by the Care Quality Commission reported that most of the care across England was good. However, the assessment concluded that half of A&Es were "not good enough" and identified that funding and workforce pressures constituted challenges to the quality of care in the acute hospital sector.

"There is pressure on all health and care services in England. Waiting times for treatment in hospitals have continued to increase and, like many areas within the NHS, demand for elective and cancer treatments is growing, which risks making things worse. In hospital emergency departments, performance has continued to get worse while attendances and admissions have continued to rise" (Care Quality Commission, 2019).

Particular concerns were identified in relation to deteriorating standards of care in mental health services, with the CQC noting that since October 2018, fourteen independent mental health hospitals that admit people with a learning disability and/or autism were rated as inadequate and put into special measures. Concerns were raised about mental health detention; prolonged use of segregation for people with a learning disability and autism; delayed discharges resulting from care packages not being in place; lack of community services and lack of availability of mental health care including crisis care; the use of placements and rehabilitation services that are far from home. Lack of appropriately skilled staff was identified in the majority of providers assessed as inadequate. The CQC concluded that "a better system of care is needed for people with a learning disability or autism who are, or are at risk of, being hospitalised, segregated and placed in overly restrictive environments" (Care Quality Commission, 2019). Further concerns relating to mortality amongst individuals with learning

difficulties were raised in a separate review (University of Bristol Norah Fry Centre for Disability Studies, 2019).

In 2018, the Care Quality Commission undertook an assessment of how local organisations work together to meet the needs of older people. The review identified good practice in some local areas and concluded that people experience the best care when people and organisations work together to overcome the fragmentation of health and social care and coordinate personalised care around people's individual needs. However, the review concluded that there had been uneven progress across the country and identified evidence of poor practice and ineffective coordination of health and care services in some areas. Funding pressures were identified as one of the factors that have negatively impacted on progress (Care Quality Commission, 2018, 2019, pp. 21–26; NHS England & NHS Improvement, 2019).

An inquiry into a cluster of baby deaths at the Shrewsbury and Telford Hospital Trust was announced by Jeremy Hunt in 2017, with the number of suspect cases had increased to 900 in early 2020. In separate developments, in February 2020 an Inquiry into healthcare malpractice concluded that the healthcare system had “proved itself dysfunctional at almost every level when it came to keeping patients safe”. The Inquiry identified historic failures with public and private providers as well as the regulatory system and recommended that differences between how the care of patients in the independent sector is organised (including consultants not being employed by private hospitals, and private hospitals not having intensive care units on site) are explained to patients who choose to be treated privately, or whose treatment is provided in the independent sector but funded by the NHS (Independent Inquiry, 2020).

6.5.2 Variations in hospital level mortality

As we reported in our previous paper (Vizard & Obolenskaya, 2015), there has been considerable debate in relation to the use of standardised mortality ratios (SMRs) as a measure of hospital quality. Following a review of variation in standardised mortality rates in the Public Inquiry into the Mid-Staffordshire Trust (HM Government, 2013), the Keogh Report (Keogh, 2013) resulted in 11 trusts being placed under special measures. However, Hogan et al. (2015) have criticised SMRs as a measure of hospital quality on the basis that they place excessive weight on a small number of deaths deemed to be unexpected.

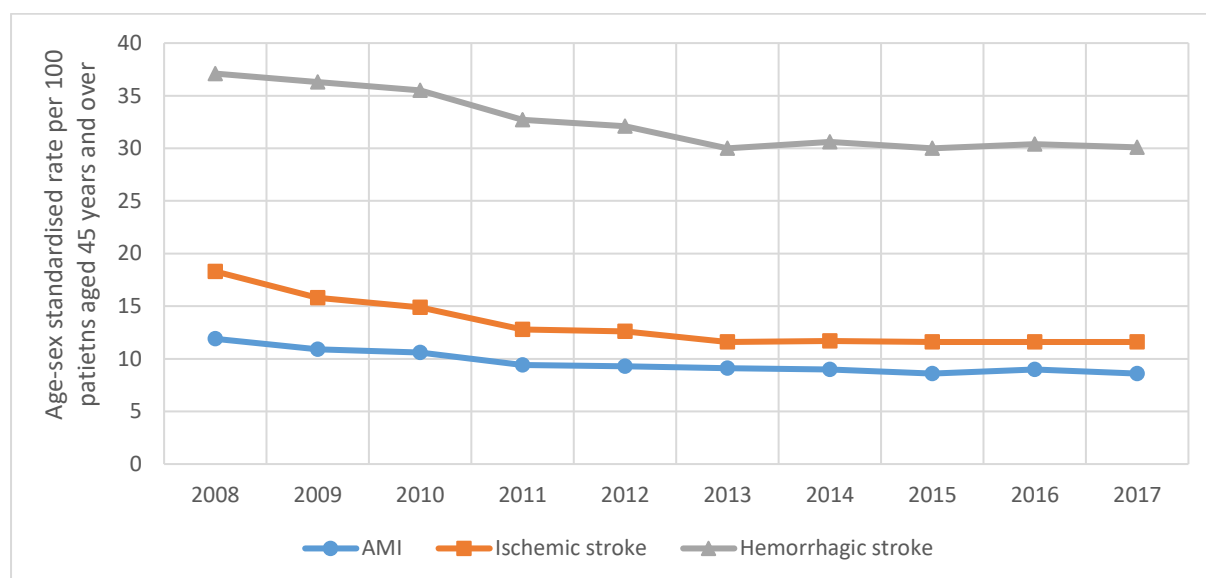
The NHS has published the Summary Hospital-level Mortality Indicator (SHMI) since October 2011 as an official statistic. The SHMI seeks to record

variation in deaths associated with hospitalisation. It provides a ratio between the actual number of patient deaths during hospitalisation or within 30 days of discharge and the expected number of patient deaths, based on average England figures and the characteristics of patients being treated at the hospital. The SHMI groups trusts into categories of 'higher than expected', 'as expected', or 'lower than expected' deaths. Of the 129 trusts included in the SHMI from 1 August 2018 to 31 July 2019, 10 had a higher than expected number of deaths. These trusts cannot be compared to previous periods as SHMI reporting recently changed from quarterly to monthly (NHS, 2019I). The SHMI methodology does not adjust for deprivation. However, contextual information is provided on the crude proportion of finished provider spells (the proportion of deaths reported in the SHMI) within each IMD quintile. In the same period as above, 23.7% of deaths occurred in the most deprived quintile and 15.9% occurred in the least deprived (Table 31 - online appendix).

6.5.3 Survival rates following hospital admission

Rates of survival after hospital admission for stroke and AMI can provide insights into the quality of acute hospital care. Thirty-day mortality rates after admission to hospital for AMI, ischemic stroke and haemorrhagic stroke remained flat between 2013 and 2017, following a period of improvement between 2008 and 2013 (Figure 26). While international comparisons of these outcomes should be treated with caution due to data limitations, it is notable that UK falls behind many comparable countries in relation to thirty-day mortality after admission to hospital for stroke and AMI (Online appendix - Table 45).

Figure 26 Thirty-day mortality after admission to hospital for AMI, ischemic stroke and haemorrhagic stroke based on linked data, UK, 2008 to 2017

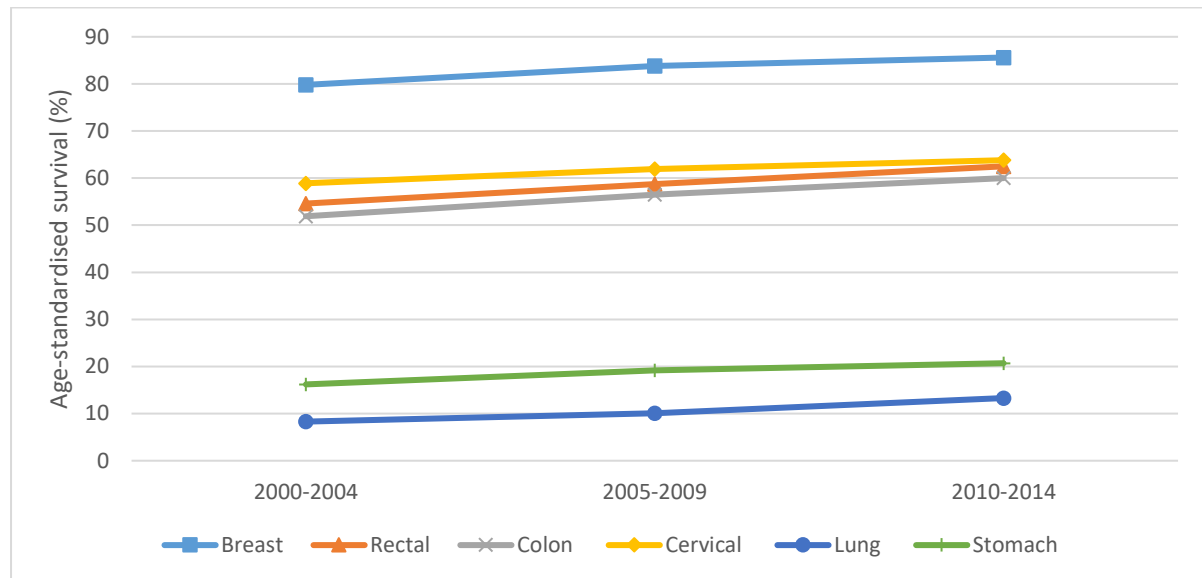


Source: OECD Health Statistics (OECD, 2019c), extracted 12/11/2019

Similarly, five year cancer survival rates can provide insights into the quality of cancer care. Five-year cancer survival rates have improved in the UK over recent decades for a range of common cancer types. Figure 27 shows that between 2000-2004 and 2010-2014, five-year survival rates improved in the UK for breast, rectal, colon, cervical, lung and stomach cancers. With the caveat that international comparisons of these outcomes should be treated with caution due to data limitations, it is notable that despite these improvements, the UK continues to lag behind comparator countries on these outcomes. Between 2000-2004 and 2010-2014, the UK generally ranked in the bottom half of comparable OECD countries for five-year survival rates for rectal cancer and the bottom half of comparable OECD countries for five-year survival for other common cancer types including breast, rectal, colon, cervical and lung cancer (Table 45– online appendix). In relation to lung and stomach cancer, the UK consistently ranked among the bottom 5 of 32 OECD countries. These findings are reflected in a recent study undertaken by Arnold et al. (2019), which reviewed cancer survival rates across seven countries (Australia, Canada, Denmark, Ireland, New Zealand, Norway, and the UK) based on patient-level data from 3.9 million patients diagnosed between 1995 and 2014. The study found that between 2010 and 2014, the UK had the lowest survival rate of the countries analysed for five of the seven cancers analysed

(stomach, colon, rectum, pancreas and lung cancer). Arnold et al. (2019) concluded that the main determinants for country-level variation in cancer survival were stage of diagnosis, access to timely and effective treatment and the extent of comorbidity.

Figure 27 Five year cancer survival rates, UK, 2000-2004 to 2010-2014



Source: OECD Health Statistics (OECD, 2019c)

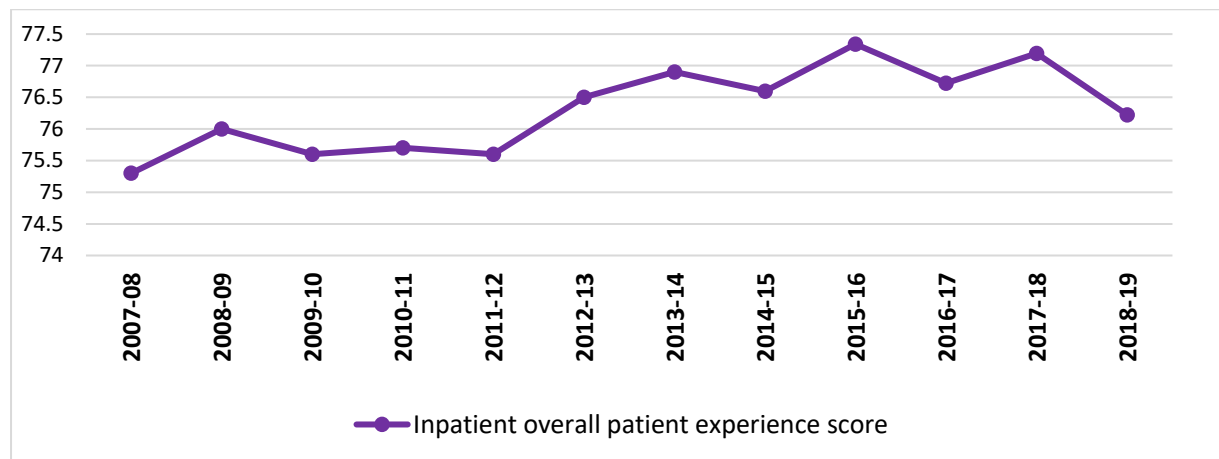
6.5.4 Patient reported experiences

Inpatient experience

The Adult Inpatient Survey records the experience of hospital patients who had at least one overnight stay. There was a statistically significant decrease at the 95 per cent confidence level in overall patient experience between 2017-18 and 2018-19 and the 2018-19 overall patient experience score was the lowest recorded since 2011-12 (Figure 28) (CQC ONS NHS, 2019b).

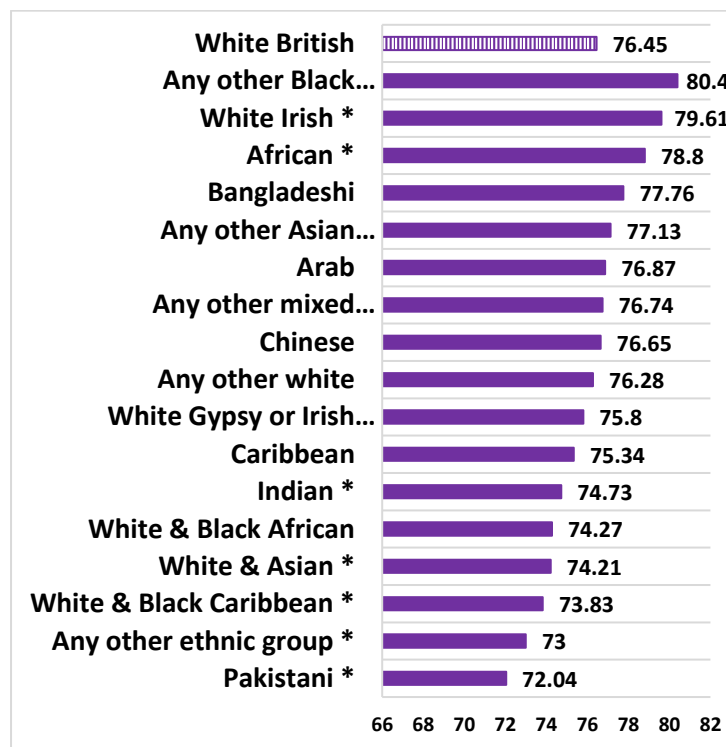
Patients from the Pakistani ethnic group reported the lowest rate of satisfaction with hospital care (72%). Satisfaction levels amongst the Mixed White/Asian, Mixed White/Black African and Mixed White/Black Caribbean ethnicities were also particularly low (**Figure 29**).

Figure 28 Overall Adult Inpatient Experience Score (England)



Source: NHS England 2019 (2019b) (using Adult Inpatient Survey 2018)

Figure 29 Overall Adult Inpatient Experience Score by ethnic group (England, 2018/19)



Source: NHS England (2019b) **Note:** 1. Ethnic group is unknown for 4,162 respondents. 2. Results marked with an asterisk are significantly different (at the 95 per cent confidence level) from the White British group

Previous CASE research (Vizard & Burchardt, 2015b) found that 38% of Adult Inpatient Survey 2012 respondents who required support with eating only sometimes received enough assistance or did not receive enough assistance. This was estimated to be equivalent to approximately 1.3 million inpatients per annum, 640,000 of whom were aged 65 or over. Looking at responses to the Adult Inpatient Survey 2018, only 61% of inpatients reported that they had 'always' received enough support, a one percentage point decline from the 2017 survey (though not statistically significant) and the lowest figure since 2011 (Table 26 - online appendix). A figure of 61% was similarly recorded in the 2019 survey. In relation to a new patient survey question relating to fluids, 6% of inpatients reported not having enough to drink during their time in hospital due to not being offered enough to drink and 1% because they did not get enough help to drink in 2018. Similar figures were reported in the 2019 survey with further analysis suggesting poor experiences for respondents with Alzheimer's or dementia or who completed the questionnaire with the help of a healthcare professional (Table 27 - online appendix and CQC, ONS and NHS (2020)).

Another lead indicator of inpatient experience relates to patient experiences of respect and dignity. In the 2018, 80% of inpatients reported that they had 'always' been treated with respect and dignity during their hospital stay, a decrease from 82% in the 2017 survey and the lowest figure since 2014 (79%) (CQC ONS NHS, 2019b) (Table 25 - online appendix). In 2019, there was an increase to 81%. Meanwhile, 17% of patients reported that they had 'sometimes' been treated with respect and dignity in 2018 and 16% in 2019, with the proportion remaining that they were *not* treated with respect and dignity remaining unchanged at 3% (an *improvement* since 2014, when this figure was 4%).

Across other key areas of inpatient experience, analysis of the 2018 survey results suggested that while many aspect of patient experience had remained stable over a 10 year period, some aspects were stagnant or declining ((CQC, ONS and NHS (2019b)). The proportion of inpatients admitted through an emergency or urgent route was rising throughout the 2010s and this trend continued up to the 2019 survey. In relation to waiting, the proportion of patients who considered that they had been admitted as soon as they thought it was necessary had declined in the years running up to the pandemic with the proportion who felt they should have been admitted "a lot sooner" passing the 10% threshold for the first time in ten years in 2018. Inpatient experiences of integrated and person-centred care - a key focus of policy during the five-year period under examination - was also identified in the 2018 survey analysis as one area where inpatient experiences had been declining or stagnating. Only 80% of

inpatients reported that the need for further health or social care services support after leaving hospital was discussed with staff in 2018, compared to 84% in 2013. This figure remained unchanged in the 2019 survey, with 21% of respondents who expected care or support after discharge reporting that they had not received the care and support they expected in 2019. Looking across the outcomes of the 2018 survey, official analysis suggested that while declines of one or two percentage points across many areas of inpatient experience may not appear to be important in isolation, when taken together, they suggested that wider shifts might be at play. This analysis concluded that: “[w]hile last year we reported on a system still delivering improvements in patients’ experiences despite growing pressure, this year, the improvement is not sustained ... [in] 2018, there is a lot of evidence to suggest that pressure on the system is having a real impact on patients’ experiences of care” (Care Quality Commission, 2020b; NHS, 2019a).

Experiences of community mental health services

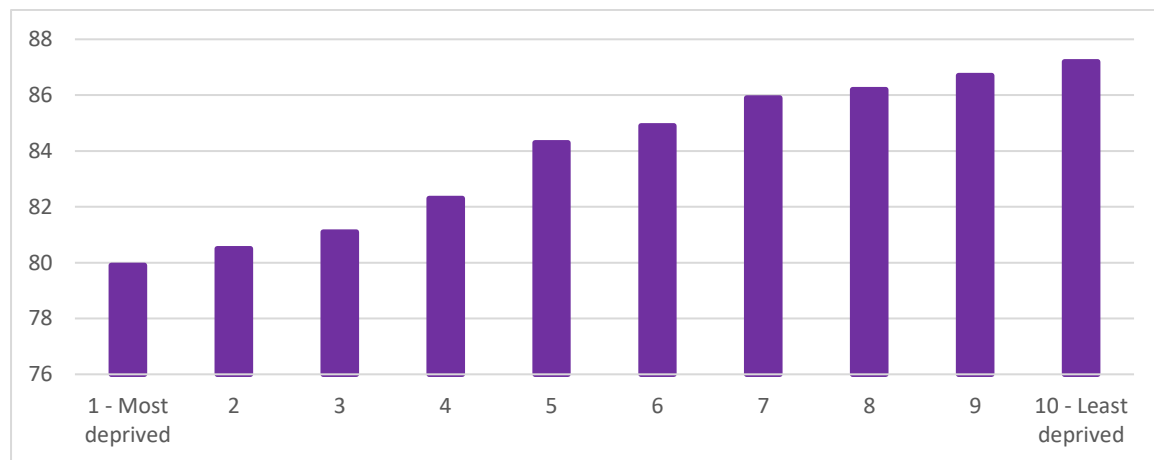
The Community Mental Health Survey records the experience of people who received treatment for a mental health condition. Changes in survey methodology mean that the overall experience indicator from the 2019 Community Mental Health Survey cannot be compared to previous years (Table 24 – online appendix). The 2019 survey results showed that experiences of community mental health services remained poor in 2019 across most areas and had been declining against some indicators. Between 2014 and 2019, there were declines in the proportion of respondents who said that they had seen NHS mental health services enough for their needs; and in the proportion of respondents who felt that they were given enough time to discuss their needs with health and social care workers. In relation to respect and dignity, 71% of respondents in 2019 felt that they had ‘always’ been treated with respect and dignity by NHS mental health services. This represented a three percentage point decline since 2014 and was a substantially lower than the proportion of inpatients that reported that they had ‘always’ been treated with respect and dignity in the Adult Inpatient Survey for the same year (CQC ONS NHS, 2018; CQC, ONS, NHS, 2019b; Table 28 - online appendix).

Patient experiences of GP services

Changes in methodology in 2018 to the GP Patient Survey led to the loss of comparability of results for most questions against previous years (Ipsos Mori, NHS, 2019). Data from the GP Patient Survey on overall patient satisfaction with GP services can be compared between 2011/12

and 2016/17. Patient satisfaction declined from 88.3% in 2011/12 to 84.8% in 2016/17 (Table 30 - online appendix). In 2019, 95% reported that their needs were met at their last GP appointment, 83% described their overall experience of their GP practice as 'good' and 67% of respondents reported that their experience of making an appointment was 'good'. However, there were substantial inequalities in reported experiences of GP services socioeconomic disadvantage and ethnicity on the eve of the COVID-19 pandemic. Looking at breakdowns by socioeconomic deprivation, there was a ten percentage point gap in patient reported satisfaction with GP services in 2017/18 by small area disadvantage, with 79.9% of respondents living in the most deprived decile reporting 'very good' or 'fairly good' experiences of GP services compared to 87.2% of respondents living in the highest decile (Figure 30). Looking at breakdowns by ethnicity, in 2019, Bangladeshi and Pakistani respondents reported the worse experiences, with 72% reporting a 'very good' or 'fairly good' experience of GP services, followed by Gypsy or Irish Traveller and Chinese respondents (74%), whilst White English, Welsh/Scottish/Northern Irish/British and Irish respondents reported the best experiences (84%-87%) (Figure 91 – online appendix).

Figure 30 Experiences of GP services by deprivation decile, 2017/18



Source: GP Patient Survey, as reported in NHS Outcomes Framework - Indicator 4a.i Patient experience of GP services (NHS, 2018c)

Notes: This table reports the percentage of people reporting a 'very good' or 'fairly good' experience of GP services by 2015 IMD scores, weighted for design and non-response

Patient experiences of urgent and emergency care

The 2018 Urgent and Emergency Care Survey gathered information on the experience of attendees of type 1 services (which include A&E departments) and type 3 services (which include urgent care and treatment centres). In relation to type 1 services (A&E), 79% of respondents reported that they were always treated with respect and dignity, a statistically significant improvement of 1 percentage point since 2016. There were also statistically significant improvements in relation to the proportion of respondents reporting that they had enough time to discuss their condition with their doctor or nurse (75% in 2018) and the proportion of respondents that had access to suitable food and drink (59% in 2018). However, the proportion reporting waiting more than 4 hours for being examined by a doctor or nurse, and / or that their visit to A&E lasted for more than four hours, showed statistically significant increases between 2016 and 2018 (CQC, ONS and NHS (2019a)).

Patient experiences of cancer care

The National Cancer Patient Experience Survey (NCPES) monitors progress in the patient experience of cancer care. Online appendix Table 29 shows selected results from the NCPES between 2015 and 2019. In relation to overall experience of cancer care, respondents gave an average rating of 8.81 (out of 10), a statistically significant increase from 8.7 in 2015. However, there were statistically significant deteriorations on five questions between 2018 and 2019, including in relation to communication with hospital staff, the provision of understandable answers to questions and on the question of whether nurses and GPs did everything they could to support the respondent. In relation to respect and dignity, 87.7% of respondents reported that they were treated with respect and dignity. Results have been consistently poor on the question of home care and support from health or social services (for example, district nurses, home helps or physiotherapists) during their cancer treatment, with 13% of respondents who indicated that they needed care and support reporting that they had not received enough care and support in 2019 (Picker Institute, 2020).

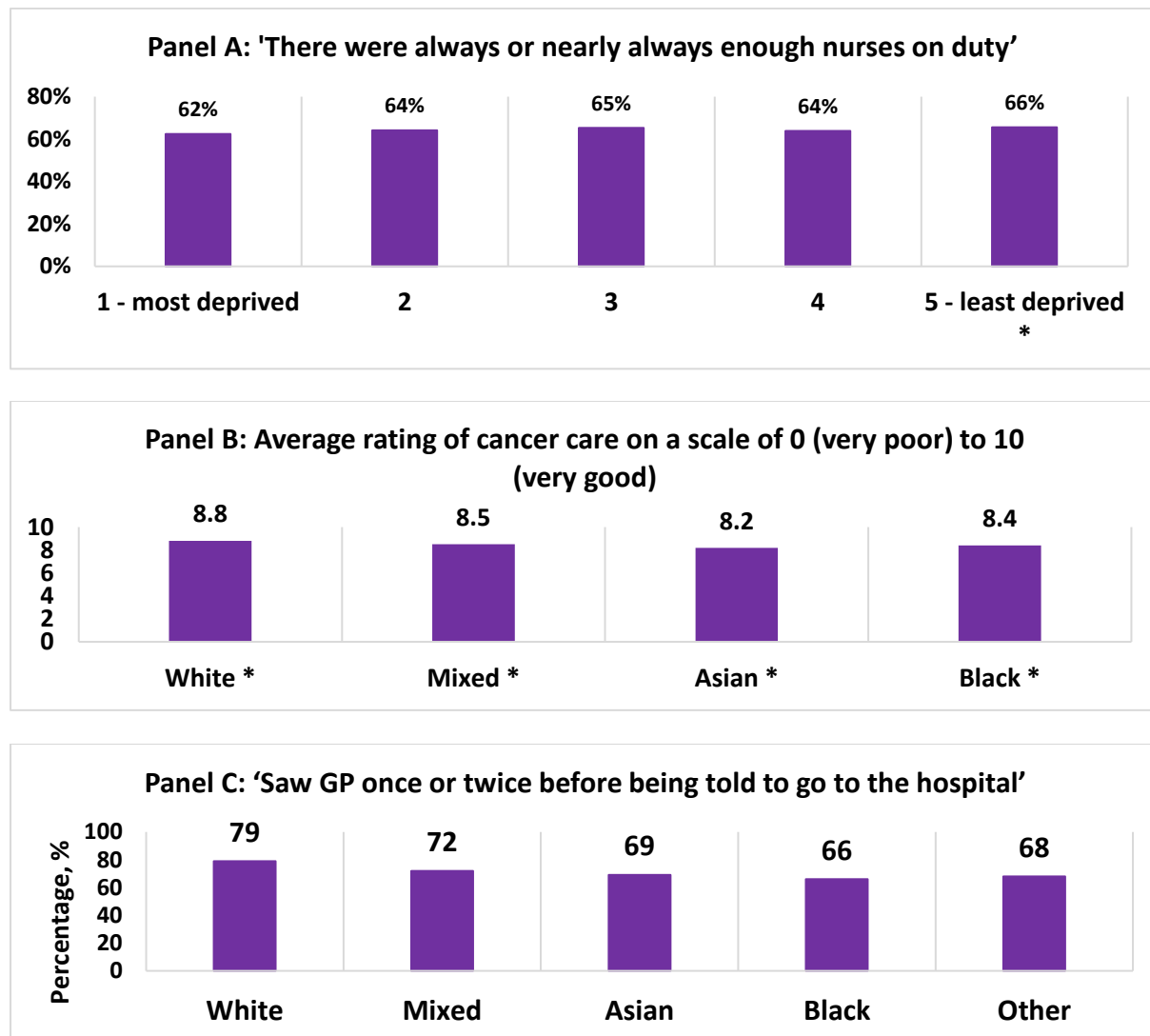
Looking at breakdowns by socioeconomic deprivation, in 2019, there was a statistically significant difference in the overall cancer care experience rating of respondents living in the most deprived areas (8.77) and least deprived areas (8.86) (Picker Institute, 2020; NCPES, 2019) and (Figure 92 - online appendix). There were also inequalities in response to a question on whether there were always or nearly always enough nurses on duty, with

62% of respondents living in the most deprived areas, compared to 66% of respondents living in the least deprived areas, responding 'yes' (NCPES, 2019) and (Figure 31 panel A).

Panel B of Figure 31 shows the overall score reported by cancer patients from each ethnic group in the NCPES in relation to their satisfaction with the care received on a scale of 0 to 10 (with 10 being very good). Respondents from the White ethnic group gave the highest overall rating of their experience of cancer care (8.8), followed by Mixed (8.5), Black (8.4) and Asian (8.2) (Figure 31).

Responses to the survey suggest that cancer patients from minority ethnic groups are less likely to obtain a timely referral from their GP and to visit their health centre more times prior to referral to treatment than their White counterparts. Panel C shows that 79 per cent of those from the White ethnic group saw the GP (only) once or twice before being told to go to the hospital, compared to 69 per cent of the Asian ethnic group and 66 per cent of those from the Black ethnic group. In contrast, 10.6 per cent of respondents from the Black ethnic group, 9.5 per cent of the Asian group and 8.8 per cent of the Mixed group saw a GP five times or more before being referred, compared to 5.1 per cent of White respondents. Looking at trends between 2015 and 2019, although the White group remained more likely to obtain a more swift referral, all ethnic minority groups experienced a reduction in the number of visits to their GPs prior to referral (Picker Institute n.d. and Online Appendix Figure 93).

Figure 31 National Cancer Patient Experience Survey, selected questions, 2019 (England)



Source: Picker Institute (2020) (Using National Cancer Patient Experience Survey) and Picker Institute n.d.

Notes: In Panel A an asterisk indicates the score is statistically different from the national score and in Panel B between the most and least deprived areas. Panel C shows responses to survey question 1, where respondents were asked how many times they saw a GP before being told they needed to go to hospital about cancer. Response options included once, twice, three-four times or five or more times and the panel captures the percentage of positive responses. Other response options included going straight to hospital, going to hospital after a cancer screening or don't know/can't remember.

The Maternity Services Survey monitors the experience of women who have received support from NHS maternity services before giving birth (antenatal care), during birth and 6-8 weeks following birth (postnatal care). CQC and NHS (2019a) analysis of the maternity services survey found that whereas there had been small improvements in many aspects of the maternity care experience between 2013 and 2017, this trend did not continue between 2017 and 2018, with very few further improvements and some questions showing a decline. The analysis also showed that responses to questions relating to postnatal care were less positive than other aspects of the maternity experience. In contrast, CQC and NHS (2020) noted that in the 2019 survey there were more improvements compared to the 2018 survey with indications of some sustained improvements across involvement, interaction with staff and infant feeding. In addition, 89% of respondents reported that they had 'always' been treated with dignity and respect in 2019, a year-on-year improvement since the 2017 survey and a statistically significant improvement since 2013. Less positive results were reported in relation to continuity of care, perinatal mental health and the availability of staff and support outside of acute settings and postnatally once home after a birth. In 2019, 70% of women reported that they saw a midwife as much as they wanted after going home, a lower proportion than in any year since 2013. Additionally, 16% of respondents indicated that they did not always get help when needed during labour and birth and 3% that they did not get enough help. No statistically significant variations in reported experiences of maternity care were identified by socio-economic deprivation or by ethnic minority group in CQC and NHS (2020) (however, c.f. section 7.4.7 on related issues relating to infant and maternal mortality).

6.5.5 Public satisfaction with the NHS

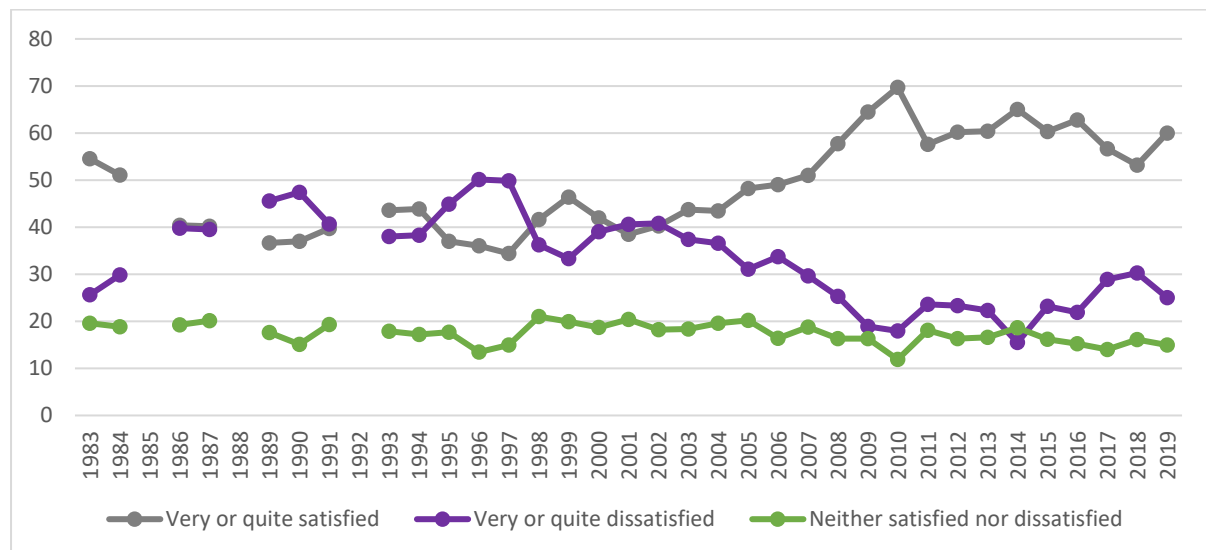
According to British Social Attitudes survey data, overall satisfaction with the NHS decreased by 10 percentage points from 63% in 2016 to 53% in 2018, the lowest figure since 2007. Overall dissatisfaction with the NHS increased from a historical low of 15% in 2014 to 30% in 2018, the highest figure since 2007. However, in 2019, the last data point before the COVID-19, there was an unexpected seven percentage point increase in satisfaction with the NHS to 60%, and a five percentage point decrease in dissatisfaction, to 25% (Figure 32).

In 2019, the most common reasons for dissatisfaction with the NHS related to staffing pressures resourcing and access ('there are not enough NHS

staff' followed by and 'the government doesn't spend enough money on the NHS' followed by it takes too long to get a GP or hospital appointment', (Figure 87 – online appendix). The most common reason for satisfaction with the NHS between 2015 and 2019 was 'the quality of NHS care', followed by 'NHS care is free at the point of use' and 'good range of services and treatments available on the NHS' (Figure 88 – online appendix).

In relation to specific NHS services, satisfaction with outpatient services had been increasing in the years running up to the pandemic and stood at 71% in 2019. Satisfaction with GPs declined from a peak in 2009 and in 2018 stood at 63% - the lowest since records commenced. However, there was a five percentage point increase in satisfaction with GPs in 2019 to 68%. Satisfaction with social care services continued to be ranked substantially below satisfaction with all NHS services (Figure 89 - online appendix) and (Burchardt et al., 2020a).

Figure 32 Overall satisfaction with the NHS, 1983 to 2019



Source: British Social Attitudes survey, as reported in (The King's Fund, 2019a) and The Kings Fund (2020)

7. Outcomes

This section examines trends in health outcomes and inequalities between the General Election in May 2015 and early 2020, the eve of the COVID-19 pandemic. We begin by examining developments in relation to universal health coverage and equitable access to health (section 7.1). We then review progress towards the goals of good physical and mental health (section 7.2). Next, we address risks factors including smoking, alcohol and obesity (Section 7.3). Finally, we set out trends against different indicators of longevity and mortality (section 7.4).

Key findings (outcomes)

- Access to healthcare remained highly equitable by international standards on the eve of COVID-19. Nevertheless, during the five-year period under examination, there were indications that health insecurity and unmet need for healthcare due to long waiting times were on the rise as well as concerns that 'hostile environment' policies were undermining universal access to healthcare for some groups.
- The prevalence of physical and mental ill-health continued to increase after 2015 with inequalities in health outcomes widening in some instances. There was some progress relating to sugar-sweetened soft drinks which was targeted by the new Soft Drinks Industry Levy, smoking prevalence and inequalities, and a small further decline in population alcohol consumption. In addition, while smoking inequalities remain substantial, there was a narrowing of the socio-economic gap between 2014 and 2019. However, adult obesity further increased between 2015 and 2018 and adult and child obesity inequalities widened. A growing body of evidence also pointed toward concerning levels of food insecurity before COVID_19 struck.
- Improvements in life expectancy at birth (UK), age-standardised mortality (England and Wales) and avoidable mortality (UK) slowed down and stalled during the second decade of the 21st century. Following more than two decades of substantial reductions in heart disease mortality in England and Wales, there was a notable slowdown in further improvements during the second decade of the 21st century and there were no further improvements in the infant mortality rate in the UK after 2013.

- Progress in addressing inequalities in mortality from the major killers in England during the second decade of the 21st century was limited. Gaps in age-standardised under 75s cardiovascular mortality barely changed between 2011 and 2018, although a small narrowing of inequalities was observed in age-standardised mortality rates for cancer and liver disease. Conversely, the gap for age standardised mortality from respiratory diseases widened. While the avoidable mortality deprivation gap for men in England narrowed slightly between 2014 and 2017, the gap for women widened.
- There were adverse developments across several other mortality indicators in the years running up to the pandemic.
 - Drug poisoning deaths and mortality amongst homeless people in England increased.
 - Alcohol deaths remained on an upward trend.
 - Suicides in the UK increased in the wake of the financial crisis and recession, before falling back in 2017. Rates then increased in 2018 and remained high in 2019 on the eve of the pandemic.
 - In England and Wales, there were episodes of sustained excess deaths in 2014/15 and 2017/18, particularly amongst older women.
- Life expectancy inequalities widened during the second decade of the 21st century, particularly for females. The stalling of improvements in life expectancy in England during the second decade of the 21st century affected both males and females across deprivation deciles, but was more marked in the most deprived decile, particularly for females, for whom life expectancy *declined* between 2011-16 and 2016-18. As a result, the female life expectancy gap widened. The gap in local government areas in the UK with the highest and lowest life expectancy also widened for both men and women between 2013-15 and 2016-18.

7.1 Universal health coverage, equitable access and financial protection

The UK performs well in OECD international comparisons relating to the share of population covered for a core set of health services and financial protection. According to OECD data, there is 100% coverage for a core set of essential health services in the UK (as there is in many OECD countries). In addition, the UK scores well in terms of a second OECD indicator on the 'extent' of coverage (including in relation to the 'all services', hospital care, outpatient care and dental care categories).

The UK also performs particularly well across multiple international indicators relating to financial hardship and out-of-pocket health expenditure. The OECD publishes an indicator of out-of-pocket expenditure on health in final household consumption (including health related spending on long-term care). On the eve of the pandemic, in 2019, the share of out-of-pocket expenditure on health in final household consumption remained low in the UK by international standards (at 2.6% - c.f. Figure 11). An additional OECD indicator captures the share of households with 'catastrophic' out-of-pocket expenditure on health (where 'catastrophic' out-of-pocket spending on healthcare is defined as spending on healthcare that exceeds 40% of total household consumption spending deducting a standard amount that accounts for spending on food, rent and utilities and therefore threatens financial protection). With the caveat that findings for the UK are based on data for 2014, the UK performs very well on this measure by international standards, and is among the OECD countries with the lowest share of catastrophic out-of-pocket spending on health as a share of household consumption (ranking fourth out of 30 countries, with a share of 1.4% compared to 2.4% in Germany, 7.4% in the US and 9.4% in Italy) and without the social gradient by consumption quintile observed in some countries internationally (with a gap between the poorest and richest quintile of 0.8 percentage points, compared to a gap of 4.2 percentage points in the US and 6.1% in Italy) (c.f. **Table 51** – online appendix).

Achieving universal health coverage is one target within the Health Sustainable Development Goals (SDG). WHO uses two similar indicators to those discussed above (coverage of core health services and catastrophic out-of-pocket spending on health based on various thresholds) to monitor progress towards this target. The available data again identifies the UK as a strong performer both in Europe and internationally ((World Health Organization, 2020a) (World Health Organization, 2020b) (World Health Organization, 2020c).

Pre-pandemic, the UK's strong performance in international comparisons of indicators relating to universal coverage and health equity was reflected in the regular health systems assessments undertaken by the Commonwealth Fund. In 2017, the UK was ranked in first overall position out of 10 countries, coming in first position for the equity domain (differences between low and high income individuals) as well as in the care process domain (relating to preventative care measures, safe and coordinated care, and patient engagement). For two further domains – access (defined as affordability and timeliness) and administrative efficiency, the UK was ranked in third position. In relation to the access domain, the UK's position on *affordability* was strong, but poor relative performance in relation to the *timeliness* of care (covering wait times between diagnosis and treatment and waits in the emergency room) resulted in the UK slipping down the international rankings. Also note that in relation to a fifth domain (health care outcomes, including cancer survival rates) the UK was ranked in tenth (last) position (Commonwealth Fund (2017)).

Internationally, international indicators of unmet need for healthcare are increasingly used to assess access to care. These indicators, published by OECD and the EU, like the Commonwealth Fund 'access' domain, capture and reflect both financial barriers (affordability) and limited availability of healthcare (including time spent waiting) as well as other health system related factors (such as travelling distance) and non-health system related factors. In 2019 in the EU as a whole, the most common reason for having an unmet need for medical examination or treatment was cost. Moreover, there was a strong correlation between cost as a barrier and household income, with 2.1% of the population in the lowest quintile income group reporting unmet need for medical treatment or examination due to financial cost compared with 0.1% in the highest quintile income group. In contrast in the UK, in 2018, only a very small proportion of the population report having an unmet need for medical examination or treatment due to financial cost (0.1%). This proportion was unchanged since 2011. Looking at breakdowns by socioeconomic disadvantage, the gap on this indicator between those in the lowest and highest quintiles of equivalised income was negligible, and lowest in the UK based on a comparison of 28 EU countries (**Table 52** and **Table 53** - online appendix).

However, while the UK's international position on unmet need for a medical examination due to financial cost remained strong pre-pandemic, as reported in section 6.4.7, EU-SILC data shows that the UK's international position in relation to unmet need for medical examination or treatment due to long waiting lists deteriorated substantially in the years running up to the pandemic. In 2011, 1.1% of the population reported an unmet need

for a medical examination or treatment with 'waiting list' identified as the underlying reason. While a break in the data should be noted and limits the basis for strict comparisons in the time series, this proportion was at 4.3% in 2018 and the UK's relative position was 26th out of 28 EU countries (Table 54 - online appendix).

Driven by the this poor performance in relation to waiting times, the UK's ranking against an indicator of unmet need for medical examination or treatment indicator due to health-system related reasons (financial, distance/travel related or due to waiting lists) also moved down, from 9th to 23rd of 28 EU countries between 2011 and 2018, with 4.5% of the population reporting unmet need for financial, geographic or waiting time reasons by the end of the period (Eurostat).

As noted in section 4.1.4, concerns around barriers to access to healthcare for irregular migrants increased following the May 2015 General Election. In 2016, Doctors of the World collected data from 1,623 patients attending their UK clinic (Doctors of the World, 2017a) and identified that 89% of patients were unable to register with a GP despite being entitled to free primary care. They also identified that 53% of patients did not seek to access the NHS due to barriers, including administrative barriers (22%), limited understanding of the NHS (16%), denial of access by NHS staff (14%), language barriers (14%) and fear of arrest (11%) (Doctors of the World, 2017a).

7.2 Good physical and mental health

7.2.1 Poor health and disability

The proportion of the population reporting bad or very bad general health, longstanding illnesses or conditions, disability and health problems has been gradually increasing over time. This trend continued is reflected across multiple indicators (comparing rates in 2014 and 2019).

- **Self-reported general health.** The proportion of men reporting very good/good general health decreased from 77.2% in 2014 to 75.1% in 2019 while for women this proportion fell from 75.2% in 2014 to 74.1% in 2019. Over the same period, self-reported bad/very bad general health increased by almost 1 percentage point for women while fluctuating for men (Online appendix Figure 97, using data from Health Survey for England).

- **Longstanding illnesses or conditions.** The proportion of women reporting at least one longstanding illness or condition that last or are expected to last 12 months or more (such as cardiovascular diseases, chronic respiratory diseases such as asthma and COPD, and diabetes) increased from 40.7% to 44.6% for women and from 37.4% to 40.5% for men between 2014 and 2019 following a previous period of decline (Figure 108). The most common longstanding conditions in 2017 and 2018 for both men and women were musculoskeletal conditions such as arthritis or back problems (14.2% prevalence for men and 19.5% prevalence for women), heart and circulatory conditions (11.7% for men and 9.8% for women) and mental, behavioural and neurodevelopmental conditions (7.8% for men and 10% for women). The most common longstanding condition for adults aged under 45 were mental, behavioural and neurodevelopmental conditions (Online appendix Figure 108, Table 36 and (NHS ONS, 2019)).
- **Health problems.** The EQ-5D is another commonly used instrument and measures individual health problems across the domains of mobility, self-care, usual activities, pain or discomfort and anxiety or depression. Respondents are asked to rate their health on a 5-point scale ranging from 'having no problems' to 'having extreme problems' in relation to each domain (ONS NHS, 2019). According to HSE 2018 data, 56% of men and 61% of women experienced health problems. The most common health problems reported were pain or discomfort, anxiety or depression, mobility, usual activities and selfcare. Women reported a higher rate of health problems across each domain except self-care (ONS NHS, 2019).
- **Disability.** Estimates of disability prevalence vary according to the way in which disability is defined⁴¹. The Family Resources Survey (FRS) includes a measure of disability based on the Equality Act definition. This data suggest that overall disability prevalence increased from 19% in 2013/14 to 21% in 2018/19 when 20% of

⁴¹ONS analysis compared disability prevalence in Great Britain in 2018-19 using the Washington Group definition, which provides a tiered measure of disability based on responses to a set of relevant questions, and the Equality Act 2010 definition, namely, a longstanding illness or disability which causes difficulty with day-to-day activities. Estimates of disability prevalence using the Washington definition varied between 52% for Disability 1 and 2% for Disability 4 while the estimate for the Equality Act definition was 28% when using the Opinion and Lifestyle survey 2019 and 23% when using the Annual Population survey 2018 (**Table 35**).

males and 23% of females in the UK reported experiencing in disabilities (Figure 107 – Panel A).

Population ageing is a key driver of the observed increases in the population prevalence of ill-health, disability and health problems over time (Age UK, 2019c). Age is a key risk factor for a range of conditions including heart, stroke, cancer, diabetes, dementia and Alzheimer's, disability, sensory loss and frailty as well as for experiencing multiple conditions. Increasing life expectancy combined with lower fertility is a global trend, resulting in increasing numbers and the proportion of the population living with these conditions. Internationally, there is growing recognition of the strain that population ageing will put on health and social care systems in both developed and developing countries in the upcoming period. WHO have highlighted the importance of comprehensive programmes of public action to address the consequences of this phenomenon, including the delivery of older-person health and care systems and broader social environments that support healthy ageing (World Health Organization, 2015a).

FRS measured disability in 2017/2018 was most common among state pension age adults (44%), followed by working age adults (18%) and children (8%) (Figure 107 – Panel B). However, concerns about increasing morbidity rates are not limited to the 'oldest of the old' or to the population aged 65 and above. Rates of obesity, diabetes and poor mental health are increasing in the working age population and are a major driver of increasing need and demand for healthcare (NHS, 2014; NHS England & NHS Improvement, 2019). Recent research (Baumberg Geiger, 2020) suggests that despite declines in working age mortality, there was no systematic improvement in working age morbidity between 1994 and 2014.

Inequalities in poor health and disability

The proportion of the population reporting bad or very bad general health, longstanding illnesses or conditions, disability and health problems all have a substantial social gradient.

- In 2017 and 2018, 38.5% of English adults in the least deprived IMD quintile experienced a **longstanding condition**, compared to 47.6% in the most deprived quintile (Table 38). This social gradient was particularly strong in relation to mental, behavioural and neurodevelopmental conditions (12.7% in the most deprived areas compared to 6.7% in the least deprived areas), respiratory conditions (10.1% compared to 5.9%), diabetes (10.8% compared to 6.7%) and musculoskeletal conditions (21.4% compared to 14.3%). The

social gradient in **longstanding conditions** was even stronger in relation to equivalised household income, with 52% of adults in the lowest income quintile experiencing a longstanding condition compared to 37% in the highest quintile (NHS ONS, 2019).

- According to 2018 HSE data, based on the EQ-5D indicator, 46% of adults in the highest income decile experienced health problems, compared to 67% in the lowest income decile (ONS NHS, 2019). A sharp social gradient is also evident by index of multiple deprivation across all 5 EU-5D domains (Table 42 - appendix) (ONS NHS, 2019).

Geographical inequalities

Looking at breakdowns by country, disability was most common in Wales (25%), followed by Scotland (23%), Northern Ireland (21%) and England (20%). In relation to region, disability was most common in the North East (25%), the North West (23%) and Yorkshire and the Humber (23%) and least common in London (13%) (Figure 107 – Panel C)⁴².

Inequalities by age

Looking at inequalities *within* the older population, the highest rates of ill-health and disability are experienced by the 'oldest of the old' (those aged 85 or above). Age UK analysis suggests that 36% of people aged 65-74 and 47% of those aged 75+ in the UK experience a limiting longstanding illness, with 69% of people aged 85+ experiencing multiple-morbidities (at least two chronic conditions). Frailty rates increase to 65% amongst those aged 90+ while 17% of the population over the age of 80 aged have dementia - which is now a more common cause of disability in later life than cancer, cardiovascular disease and stroke (Age UK, 2019c; c.f. Burchardt et al., 2020b).

⁴² The most common impairment types among those with a disability were mobility (49%), stamina, breathing and fatigue (37%) and dexterity (26%). While most impairment types remained stable or decreased between 2015/16 and 2017/18, there were increases in relation to mental health impairment (from 22% in 2015/16 to 25% in 2017/18), social and behavioural impairment (8% to 9%) and other impairment types (15% to 17%) (Figure 107 – Panel D). Disability impairment types vary across age groups. In 2017/18, the most common impairment types amongst state pension age adults with a disability were mobility (67%) and stamina, breathing and fatigue (46%). Amongst working age adults, the most common impairment types were mobility (41%) and mental health (38%). Among children, the most common impairment types were social and behavioural impairment (43%) and learning (36%) (Figure 107 – Panel E).

The Public Health Outcomes Framework has previously included an indicator of health-related quality of life for people aged 65 and over, which was derived from responses to EQ-5D domains and an overall self-assessment of health (HM Government, 2019a). Looking at variations by ethnicity, in 2016/17, people aged over 65 with an Asian other ethnic background had the highest health-related quality of life score (0.805) and people with a White Gypsy/Traveller ethnic background had the lowest (0.509) (Figure 115 - appendix). Other studies report higher prevalence of poor health amongst ethnic minority elders (over 65s), with those from the South Asian and Pakistani ethnic minority groups more likely to report health limiting conditions after controlling for socioeconomic disadvantages (Evandrou et al., 2016).

7.2.2 Healthy and disability free life expectancy

Overall trends

Internationally, increases in life expectancy have been outpacing increases in healthy life expectancy in many countries, reducing the proportion of life spent in good health and without disabilities. In the UK, a programme set out by the All-Party Parliamentary Group (APPG) on Longevity aims to deliver on the Government's ambition "for everyone to have five extra years of healthy, independent life by 2035 and to narrow the gap between the richest and poorest". ONS and Public Health England publish two key indicators that can be used to monitor progress, which combine data on life expectancy with data on self-reported health and disability from social surveys.

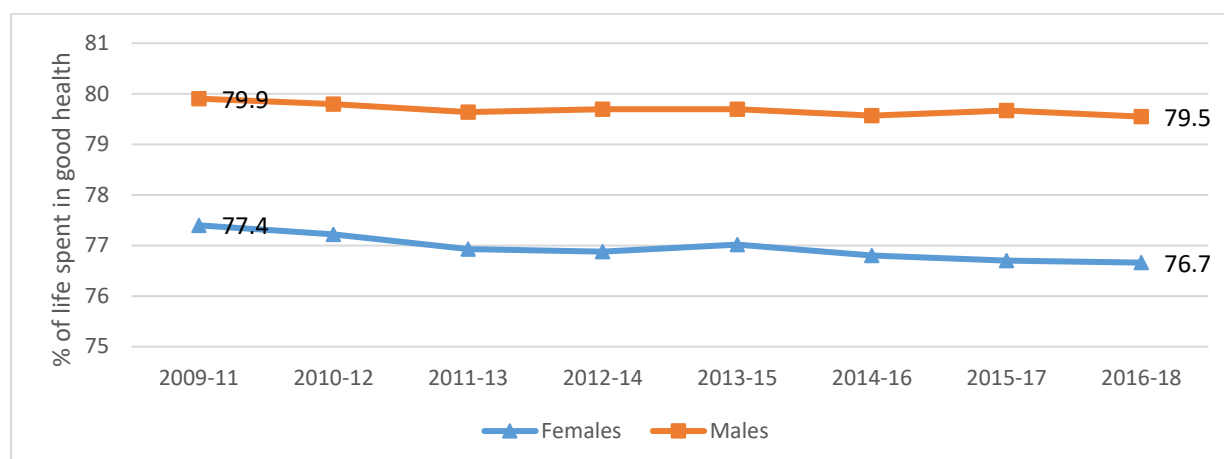
- A first indicator, **healthy life expectancy (HLE) at birth**, is a measure of the number of years a person can expect to live in good self-reported general health. Prior to the pandemic, improvements in health life expectancy had *stagnated*. Online appendix Table 34 and ONS (2021a; 2021d) shows male and female HLE for the UK and its constituent countries between 2009-11 and 2017-19. For males in the UK as a whole, there was only a marginal improvement recorded during the second decade of the 21st century from 62.7 years in 2009-11 to 62.9 years in 2017-19. There were notable *declines* in 2016-18 and 2017-19, with no statistically significant increase in healthy life expectancy between 2014-16 and 2017-19. In Wales, the rate for males declined between 2017-19, from 61.34 years in 2009-11 to 61.15 in 2017-19. HLE *decreased* in the UK for females from 63.82 years in 2009-11 to 63.28 years in 2017-19, with decreases in

all four constituent countries. The decrease between 2014-16 and 2017-19 was statistically significant, with female healthy life expectancy in 2017-19 almost five months shorter than in 2014-16.

- A second indicator, **disability-free life expectancy (DFLE), at birth** is a measure of the number of years a person can expect to live without an activity restriction, based on the Equality Act definition of disability. In 2017-19, UK DFLE was 62.3 years for males and 61.0 years for females (Table 41 – online appendix). Between 2009-11 and 2016-18, DFLE declined by 0.5 years for UK males and 1.9 years for females (Table 41 – online appendix). Looking at change between 2014-16 and 2017-19, the decrease for females between 2014-16 and 2017-19 was statistically significant ONS (2021a; 2021d).

(ONS, 2019h) reports that as HLE has failed to keep pace with improvements in life expectancy, years of life lived in poor health have increased for both males and females during the second decade of the 21st century. In 2016-18, males could expect to live 79.5% of their life in good health, a 0.4 percentage point decrease compared to 2009-11. In 2016-18, females could expect to live 76.7% of their life in good health, a 0.7 percentage point decline compared to 2009-11 (**Figure 33**). Females could also expect to live a shorter proportion of their life disability free than men. In 2016/18, UK men could expect to live 78.9% of their life disability free, a 0.3 percentage point decline compared to 2013-15 and a 1.5 percentage point decline compared to 2009-11. In 2016-18, UK women could expect to live 74.3% of their life disability free (4.6 percentage points less than men), representing a 0.9 percentage point decline compared to 2013-15 and a 2.7 percentage point decline compared to 2009-11 (Figure 113 - appendix).

Figure 33 Proportion of life spent in good health, by sex, UK, 2009-11 to 2016-18



Source: (ONS, 2019h)

Notes:

1. Figures are based on the number of deaths registered and mid-year population estimates, aggregated over 3 consecutive years
2. Figures for England, Wales and Northern Ireland are based on geographical boundaries as of May 2019
3. Figures for Scotland are based on 2018 geographical boundaries
4. Figures for England, Wales, regions, counties and local authorities exclude deaths of non-residents
5. Scotland includes non-usual residents who die in Scotland and do not have an area of residence within Scotland and imputation is used to assign to geography of 'residence' (see section 1.3.1 in the following: <http://www.scotpho.org.uk/downloads/hle/HLE-technical-paper-2015-v9.pdf>)
6. Northern Ireland also includes non-usual residents whom are allocated to place of death (see http://www.nisra.gov.uk/archive/demography/vital/deaths/life_tables/LE%20Information%20Paper.pdf for more details)

Inequalities by area deprivation

There are substantial inequalities in both healthy life expectancy and disability free life expectancy by small area deprivation in England (**Figure 34**).

Healthy life expectancy:

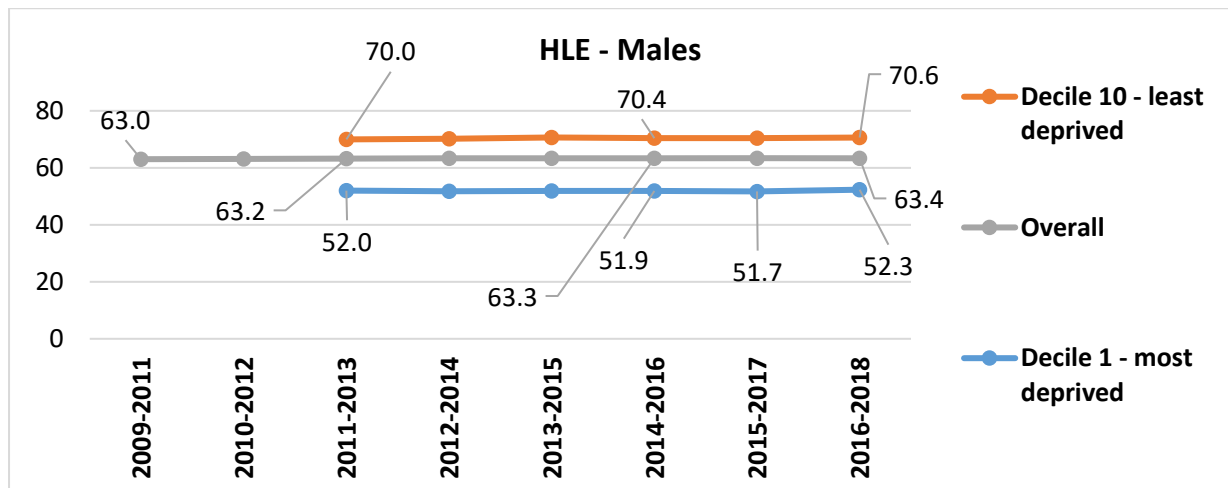
- In 2016-18, HLE for males stood at 52.3 years in the most deprived decile compared to 70.6 years in the least deprived decile. For females, HLE stood at 52.0 years in the most deprived decile compared to 70.8 years in the least deprived decile.
- Looking at trends in HLE during the second decade of the 21st century, HLE *declined* for men in the most deprived areas by 0.3 years between 2011-13 and 2015-17, followed by a year-on-year increase in 2016-18 to 52.3 years.

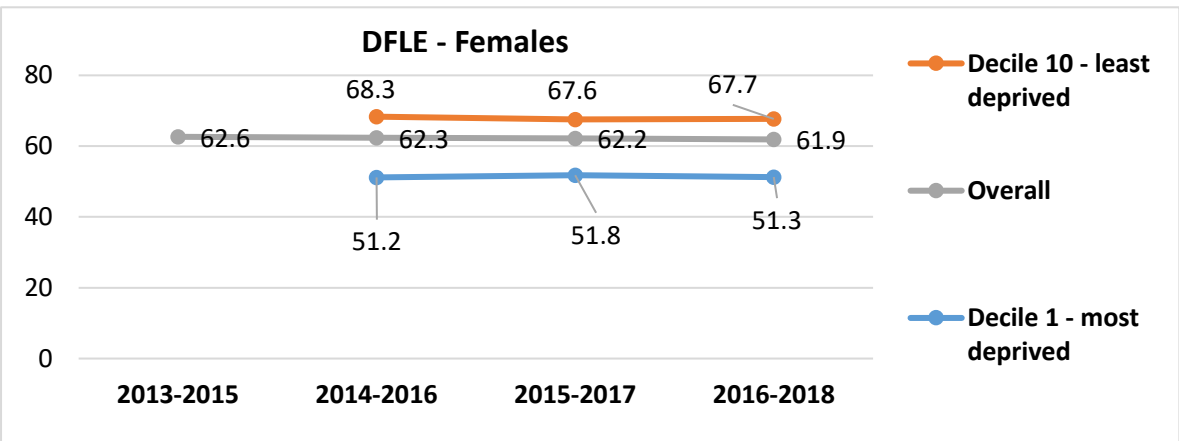
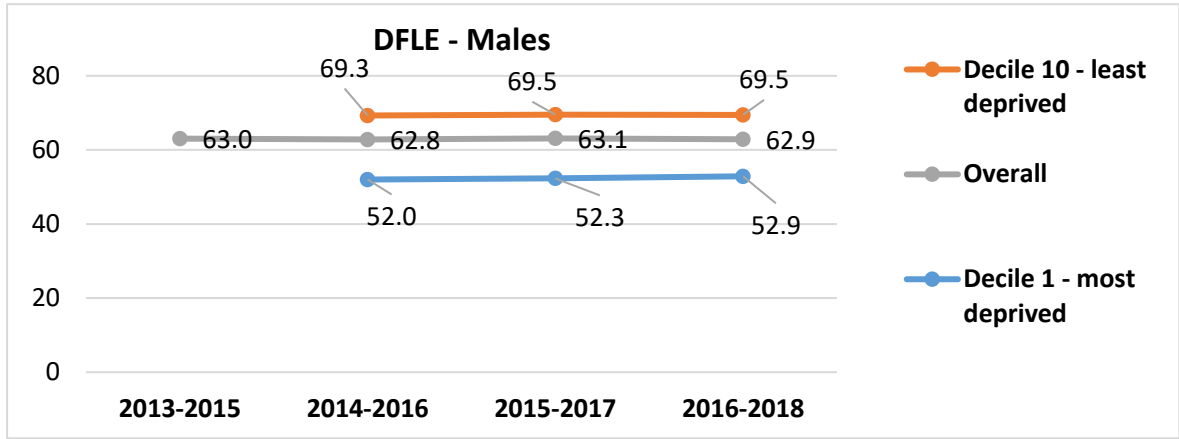
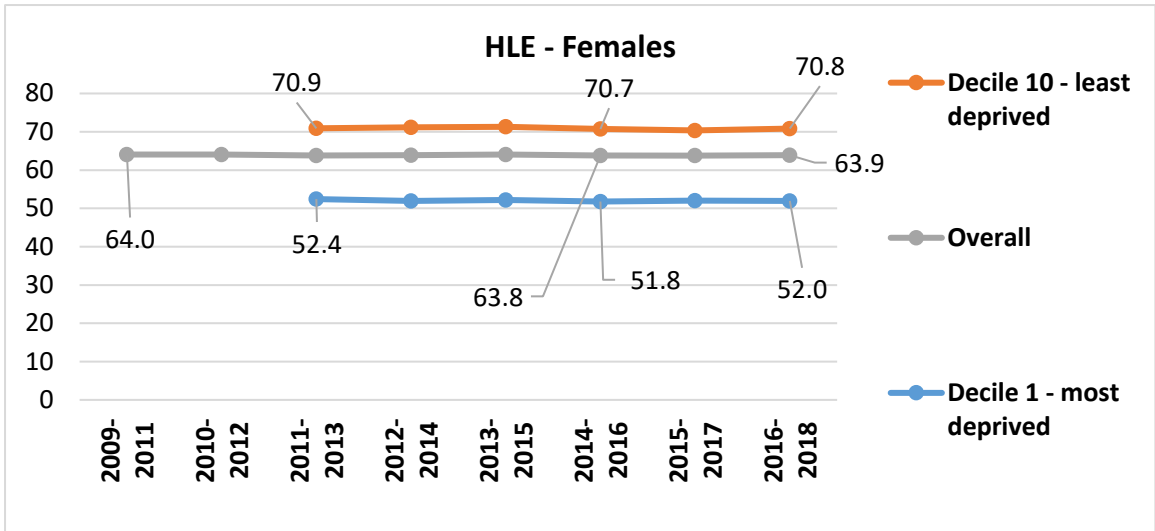
- A similar pattern is observed for females, with a decrease in 2014-16 followed by an increase in 2016-18. Female HLE declined slightly for women living in both the most and least deprived IMD deciles.
- There was no progress in reducing HLE inequality gaps for either males or females between 2011-13 and 2016-18. The gap between male HLE in the least and most deprived areas increased from 18 years in 2011-13 to 18.3 years in 2016-18. The gap in female HLE between the most and least deprived areas increased from 18.5 years in 2011-13 to 18.8 years in 2016-18.

Disability free life expectancy

- In 2016-18, DFLE for English men living in the least deprived areas was 69.5 years compared to 52.9 years for men in the most deprived areas, a gap of 16.6 years.
- For women, in 2016-18, DFLE was 67.7 years in the least deprived areas and 51.3 years in the most deprived areas, a gap of 16.4 years
- DFLE inequality gaps narrowed for both males and females compared to 2014-2016 (from 17.3 to 16.6 and 17.1 to 16.4, respectively).

Figure 34 Healthy life expectancy and disability life expectancy by sex and deprivation decile (England)





Source: ONS (2020m) for deprivation data; for overall datapoints, ONS (2019p).

Notes:

1) Figures for life expectancy include residents only based on geographical boundaries as of November 2019.

2) The health state prevalence estimates used to estimate disability-free life expectancy are sourced from Annual Population Survey (APS) data. The APS excludes residents of communal establishments except NHS housing and students in halls of residence where inclusion takes place at their parents' address.

3) IMD is the official measure of relative deprivation for small areas in England. In this document, IMD is in the form of a decile with 1 representing the most deprived areas and 10 representing the least deprived. For the period 2016-2018, all estimates were calculated using IMD 2019, prior to that IMD 2015 was used.

Inequalities by geographical area

In 2017-2019, HLE was highest in England (63.18), followed by Scotland (61.68), Northern Ireland (61.16) and Wales (61.15). HLE also varies substantially at the local area level (online appendix **Table 33**). In 2016-18, the HLE gap between local areas of the UK was 18.6 years for males and 19.1 years for females (ONS (2019i)).

In 2016-18, DFLE at birth was highest for men in England (62.9 years), followed by Scotland (61.2 years), Northern Ireland (60.9 years) and Wales (59.9 years). For females, DFLE was highest in England (61.9 years), followed by Northern Ireland (61 years), Scotland (60.7 years) and Wales (59.3 years) (Table 41 - online appendix).

7.2.3 Mental health

Mental health prevalence

Health Survey for England data indicates a notable upward trend in poor mental health from *before* COVID-19 struck. SPDO programme analysis of trends and inequalities in poor mental health (GHQ_12 score ≥ 4) using Health Survey for England trend indicates a statistically significant increase in the percentage of adults reporting poor mental health over the decade 2006-2016. This includes an upward trend following the financial crisis and recession period (2008-2012) (although with marginally overlapping confidence intervals) followed by a notable steep increase in 2016. Looking back over the medium term, the increase over the decade between 2006 and 2016 followed on from a decline between 1997-2003 and a period of flat-lining (2003-2006). After adjusting for age and sex, odds ratio analysis shows higher odds of poor mental health in 2010, 2012, 2014 and 2016 relative to 2006. Rates then fell back a little in the 2018 HSE (but not to their pre-2006 levels).

Inequalities analysis shows that the increases over the period 2006-2016 were recorded amongst most social groups, with prevalence increasing for adults from all income quintiles over the decade 2006-2016. The gap

between the highest & lowest quintile increased to a maximum in 2012, before narrowing again, but remained substantial throughout the period. Looking at breakdowns by ethnicity, prevalence increased for the White group over the decade 2006-2016 and the steep increase in 2016 was only evident for the White group.

Data from the survey of Mental Health of Children and Young People shows an upward trend in the proportion of children in England aged 5 to 15 that experience poor mental health. The prevalence of mental disorder amongst children of this age increased from 9.7% in 1999 to 10.1 % in 2004 and 11.2% in 2017. Emotional disorders became more common in this period. Amongst 5-19 year olds, the prevalence of emotional disorders stood at 8.1% in 2017 (NHS Digital 2018b).

HSE 2019 data shows a high proportion of adults over 16 (16%) screening positive for a possible eating disorder (NHS Digital 2020).

Mental health detention, human rights and ethnic group

In 2015, then-Home Secretary Theresa May announced £15million funding to deliver health-based 'places of safety' to prevent people being held in police cells. Data released by the National Police Chiefs' Council (NPCC) (2016) showed a reduction in the number of times police cells were used for detentions by over 53% between 2014-15 and 2015-16 (from 4537 detentions to 2100 detentions). In 2018, an independent review of the Mental Health Act (Department of Health and Social Care, 2018b) recommended removing police cells as a 'place of safety' by 2023/24, and in June 2019, Theresa May announced plans to ban this use completely.

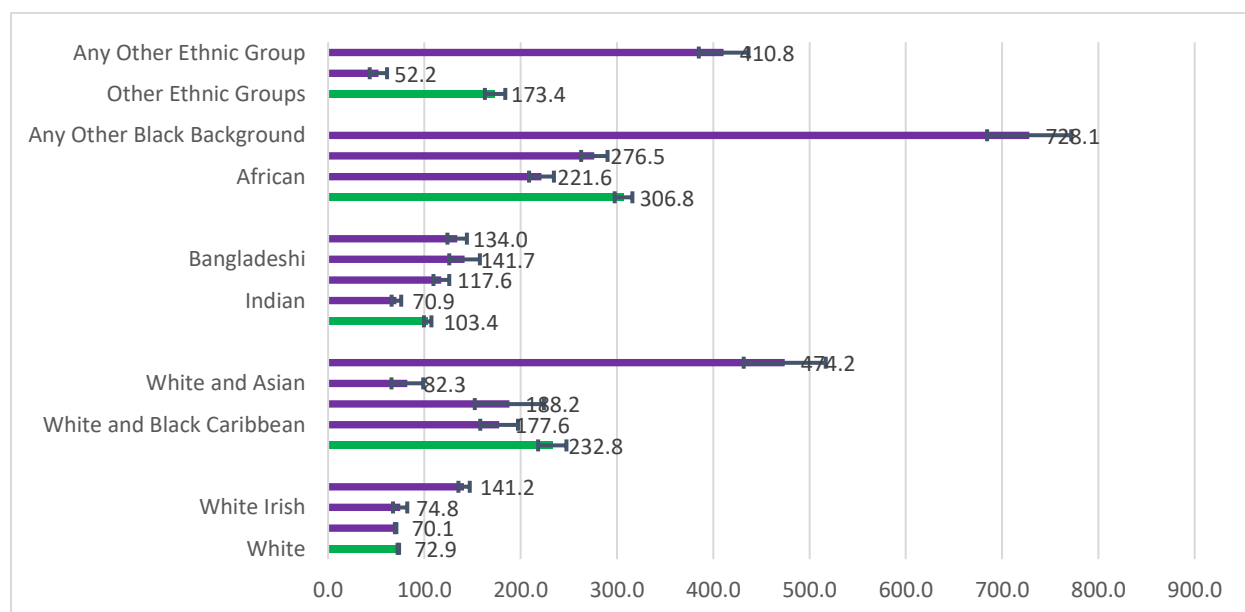
The Mental Health Act review commissioned in response to concerns relating to the increasing number of detentions and disproportionate use of the Act to detain individuals from Black and ethnic minority groups. Equality and human rights concerns had been raised by bodies such as the Equality and Human Rights Commission, the Race Disparity Unit and the UN Committee on the Rights of Peoples with Disabilities. Under the Act, individuals can be detained at NHS Trusts, Independent Service Providers, or treated in the community under a Community Treatment Order (CTO), with Section 136 of the Act allowing the police to detain someone and take them to a 'place of safety'.

Official statistics of detentions under the Act are collected by NHS Digital (2019e). These data are limited in several respects and should be interpreted with some caution as it is incomplete (resulting in underestimates) and underlying data sources have changed in important

respects (NHS Digital 2019e, 2019f). Nevertheless from the statistics that are available, it is clear that some ethnic minority groups are detained under the Mental Health Act more than White people. In particular, the 'Black or Black British' group is disproportionately represented on numerous measures, experiencing the highest rates of detentions and CTOs, and the highest percentage of detainees detained more than once. Standardised rates of detention for this group in 2018-19 were 306.8 per 100,000 population, which is more than four times the rate of the White group (which had the lowest rate at 72.9 per 100,000 population) (Figure 35).

The group 'Any Other Black Background' had the highest rates of detentions, short term detention orders, and CTOs. The standardised rate of detentions for this group was 728.1 per 100,000 population in 2018-19 – this is over 10 times the rate of the White British group (second lowest rate at 70.1 per 100,000 population) (Figure 35). Moreover, the rate for the 'Any Other Black Background' group was over 1.5 times the rate of the group with the second highest rate of detentions, which was the 'Any Other Mixed Background' group, at 474.2 per 100,000 population. The third highest rate was the 'Any Other Ethnic Group' at 410.8 per 100,000 population.

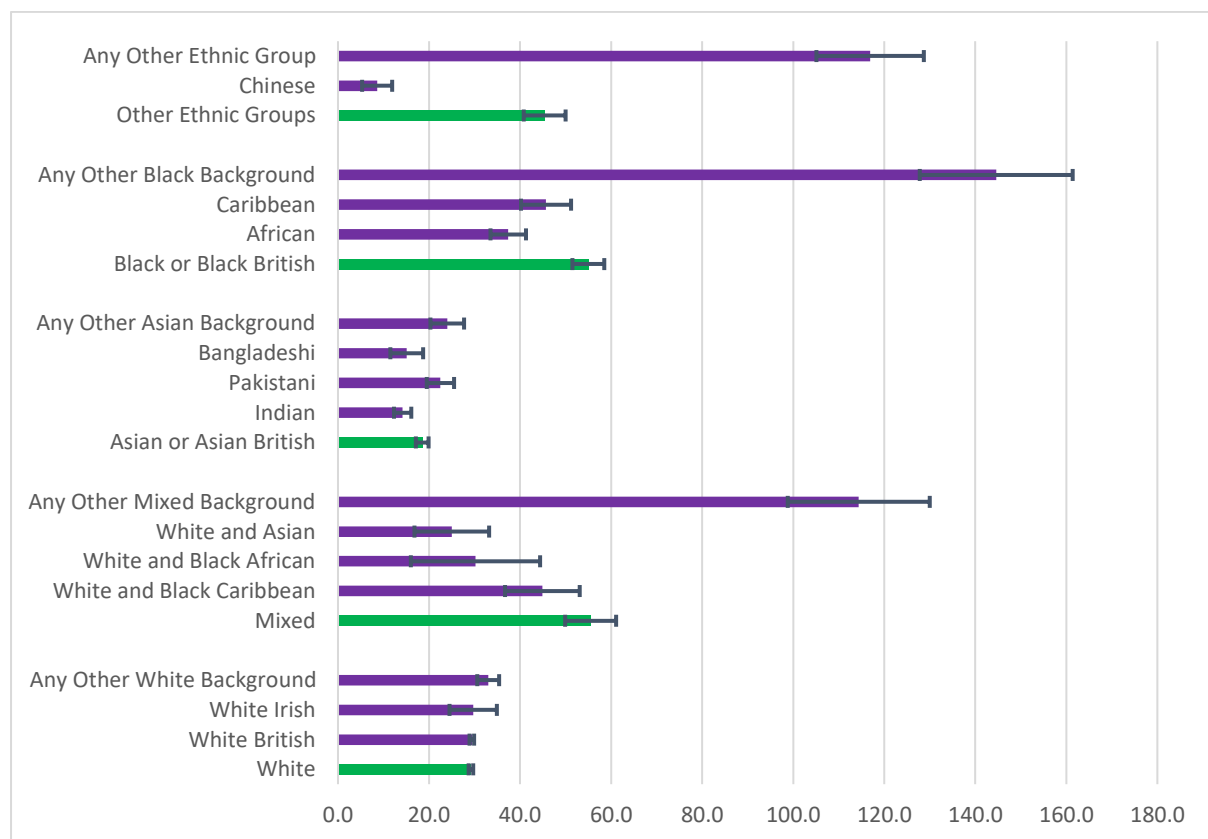
Figure 35 Standardised rate of detentions under the Mental Health Act 1983 per 100,000 population, by ethnicity, 2018-19



Source: Author's chart using data in NHS Digital (2019e). Note: the underlying data is limited in important respects. See the underlying data source for further information

The rate of section 136 orders for the 'Any Other Black Background' was 144.6 per 100,000 population in 2018-19, which was almost five times that of the White British group (29.4 per 100,000). 'Any Other Ethnic Group' experienced the second highest rate at 116.9 per 100,000 population and the 'Any Other Mixed Background' group experienced the third highest rate at 114.4 per 100,000 population. Groups with the lowest rates were the 'Chinese' group (8.6 per 100,000 population), 'Indian' group (14.2 per 100,000 population), 'Bangladeshi' group (15.1 per 100,000 population), and the 'Pakistani' group (22.5 per 100,000 population).

Figure 36 Standardised rate of uses of section 136 orders under the Mental Health Act 1983 per 100,000 population, by ethnicity, 2018-19

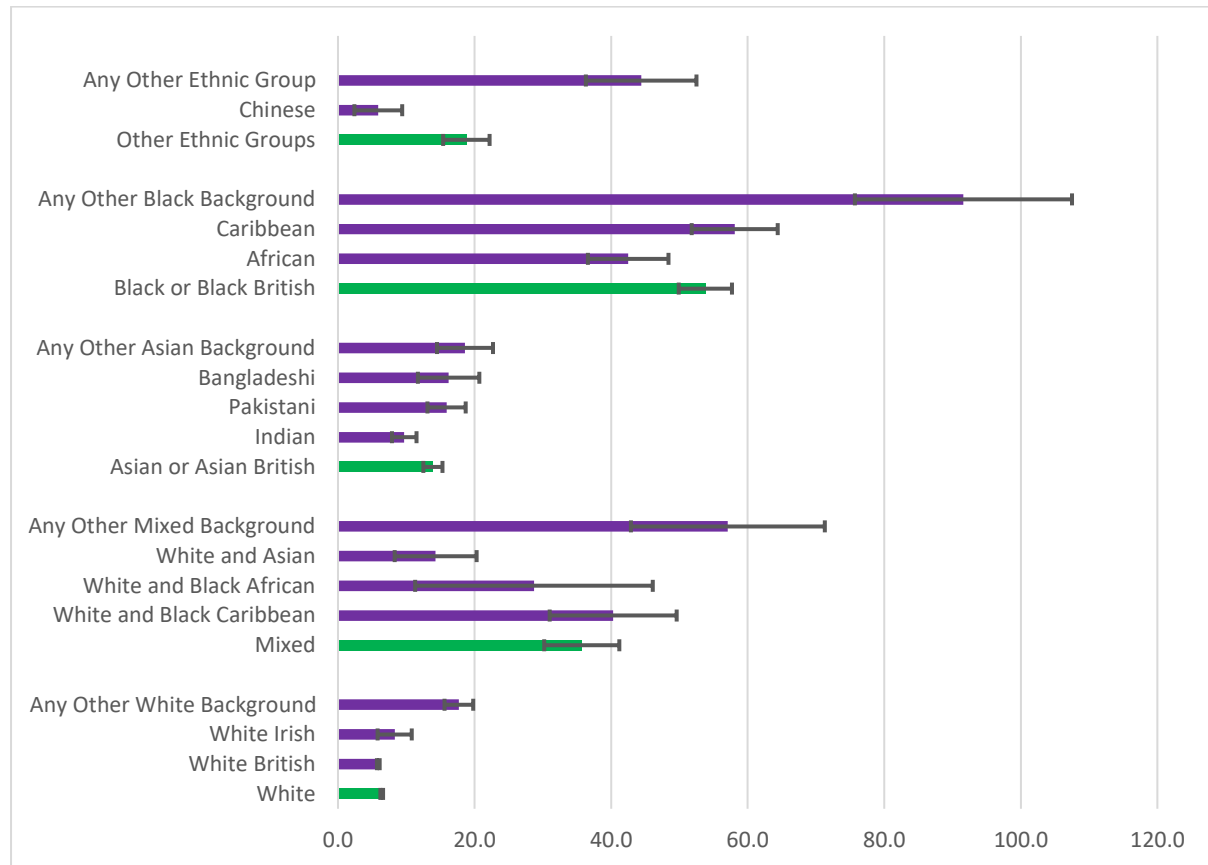


Source: created using underlying data tables in NHS Digital (2019e)

Similarly to section 136 orders, the rate of CTOs for the 'Any Other Black Background' group was the highest, at 91.6 per 100,000 population in 2018-19 (Figure 37). The difference with the White British group is even more stark than for section 136 orders, as the rate is more than 15 times

that of the rate of CTOs experienced by the 'White British' group (5.9 per 100,000 population).

Figure 37 Standardised rate of uses of community treatment orders under the Mental Health Act 1983 per 100,000 population, by ethnicity, 2018-19

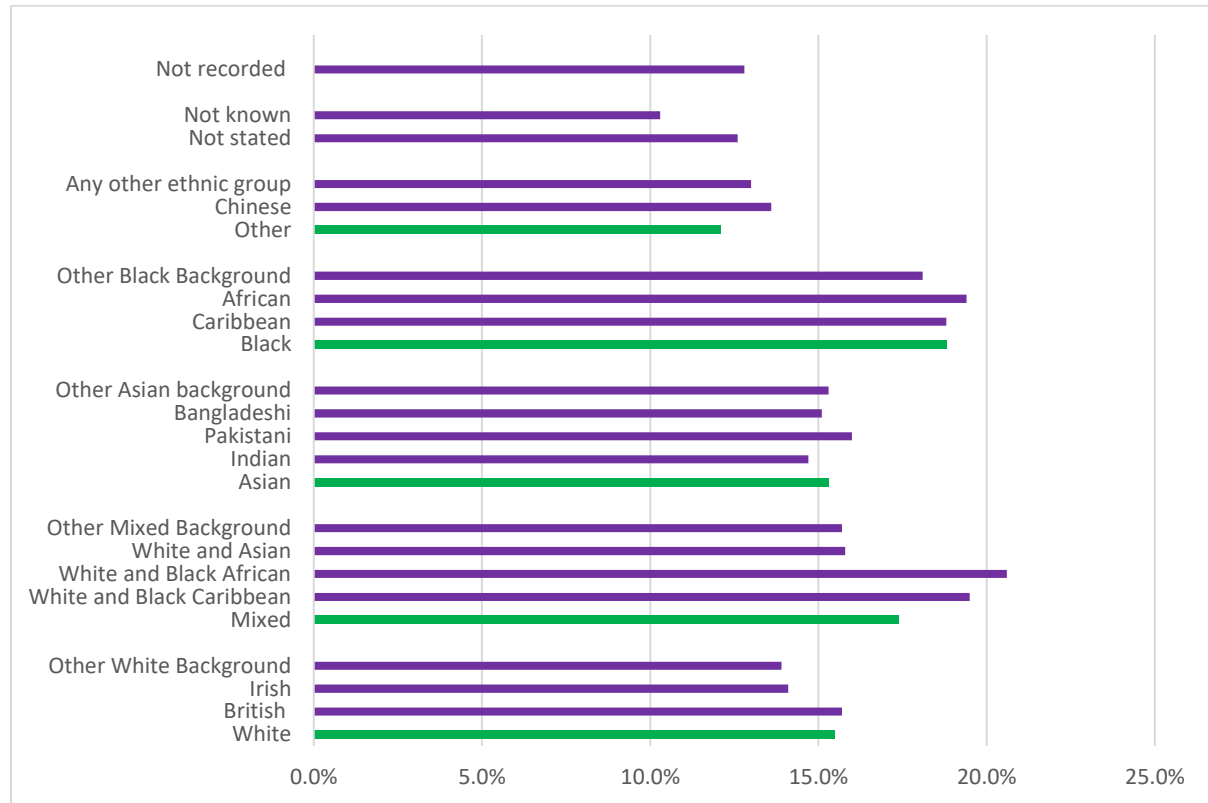


Source: created using underlying data tables in NHS Digital (2019e)

In terms of people subject to repeat detention, a similar pattern emerges. The highest percentage of people detained more than once occurred in the 'Black' group, with 18.8% of detainees detained more than once in 2018-19 (Figure 38). This was followed by the 'Mixed' group (17.4%), the 'White' group (15.5%), the 'Asian' group (15.3%), and then 'Other' (12.1%). A more detailed analysis within these groups shows that the highest percentage occurred in the 'White and Black African' group (20.6%), followed by the 'White and Black Caribbean' group (19.5%), and the 'African' group (19.4%). In comparison, 15.7% of the White British group were detained more than once. Groups with the lowest percentages were the 'Any Other Ethnic Group' (13.0%), 'Chinese' group (13.6%), 'Other'

White Background' group (13.9%), 'White Irish' group (14.1%), and the 'Indian' group (14.7%).

Figure 38 Percentage of people detained more than once under the Mental Health Act 1983, by ethnicity, 2018-19



Source: created using underlying data tables in NHS Digital (2019e)

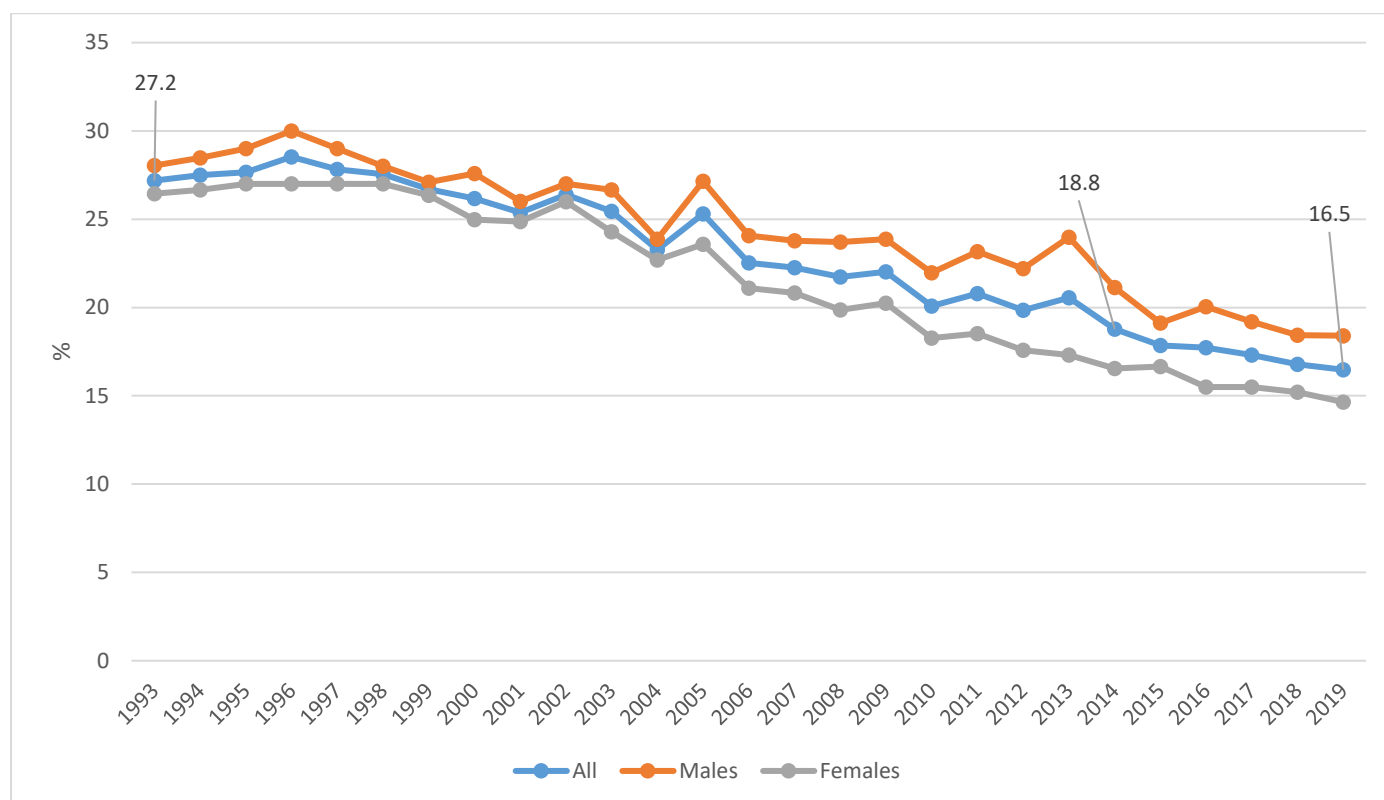
7.3 Risk factors

7.3.1 Smoking

The reduction in smoking prevalence is one of the key good news stories in public health in the UK. Rates in England are the lowest within the four constituent countries of the UK: according to HSE data, in 2019, 16.5% of adults (aged 16 or over) were current smokers, a 2.3 percentage point decrease compared to 2014 (18.8%), and a 10.7 percentage point reduction from 27.2 % in 1993 (21.7%) (Figure 39). In 2018, 6% of all adults used e-cigarettes and e-cigarettes were used by 18% of current smokers and 13% of ex-regular smokers (ONS & NHS Digital, 2019a).

Nevertheless, in England, smoking remained the largest preventable cause of death and disability and of health inequalities, with high associations with lung cancer and respiratory disease (NHS England, n.d.c). In England, those in deprived areas are four times more likely to smoke, with particularly high rates in Hastings, Blackpool, Bradford, Hull and the Manchester area (Office for National Statistics, 2018b).

Figure 39 Self-reported 'current smoker' status, England, 1993 to 2019

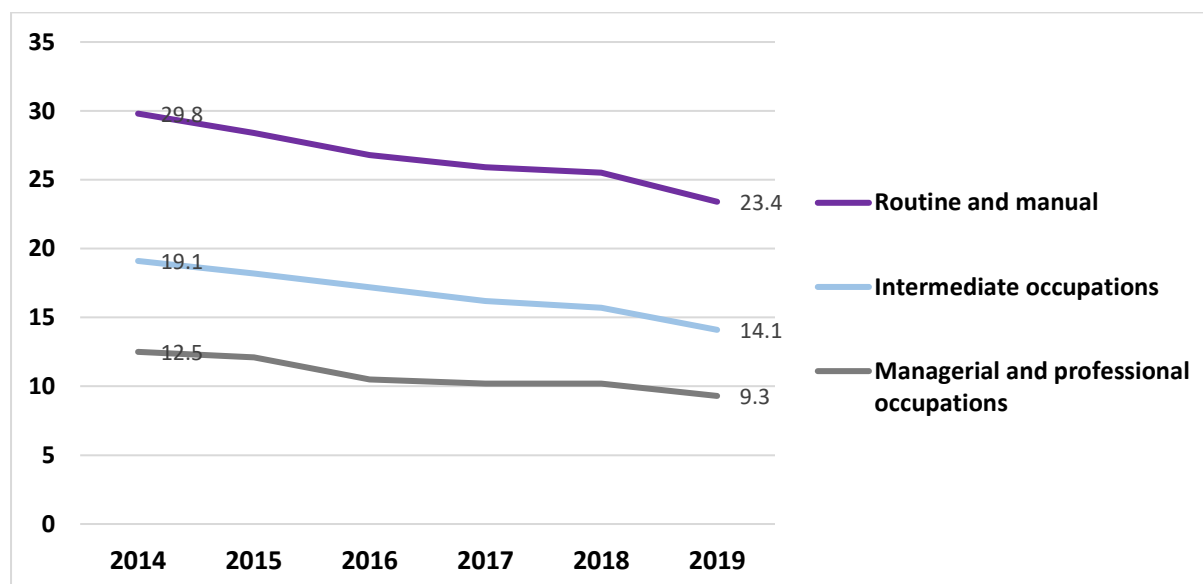


Source: Health Survey for England (NHS Digital, 2020a)

Notes: This table was titled 'Estimated alcohol consumption on heaviest drinking day in the last week, by survey year, age and sex' in previous years. The method for calculating alcohol units in this table is described in the HSE 2019 Adults' Health-related behaviours report. In 2006, the method of calculating units was reviewed, and the conversion to unit equivalents for wine, strong beers and lagers and alcopops have been revised. See the 2006 HSE report, Volume 1 Chapter 9 for details of revised conversion factors; <https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/health-survey-for-england-2006-cvd-and-risk-factors-for-adults-obesity-and-risk-factors-for-children>. Estimates for 1998 to 2005 are presented using the original calculation factors. Estimates for 2006 are presented in this table using both the original and the revised unit assumptions. Estimates for 2007 onwards are based on the revised calculation factors. The method of calculating units in 2007 was the same as for the revised 2006 method. There was a further adjustment for glasses of wine: the 2007 survey asked about the size of glass, and different conversion units were used for the different glass sizes. See the 2007 report, Volume 1 Chapter 7 for details: <https://digital.nhs.uk/data>. Data up to and including 2002 are unweighted (grey shaded columns); from 2003, onwards data have been weighted for non-response. All young adults from core and boost samples in 2002 were included in analysis of those aged 16-24 but only the core sample was included in the overall total. It should therefore be noted that the 'All Men', 'All Women' and 'All adults' totals are not the sum of the individual age groups. All adults from core and boost samples in 2005 were included in analysis of 65-74 and 75+ age groups but only the core sample was included in the

overall total. It should therefore be noted that the 'All Men', 'All Women' and 'All adults' totals are not the sum of the individual age groups. The thresholds for men and women are different, reflecting the different recommended daily limits for each that were current until official guidance was revised in early 2016. The 'All Adults' data use the different thresholds for men and women, e.g. 'Up to and including 3/4' means 'up to and including 3 units for women/4 units for men', and so on.

Figure 40 Self-reported 'current smoker' status by socioeconomic status group, all persons aged 18 to 64 years, UK, 2014 to 2019



Source: ONS (2020p) – Using 2019 Annual Population Survey

Notes:

1. Socio-economic class is defined using the National Statistics Socio-economic classification (NS-SEC).
2. Data restricted to those aged 18 to 64 years, those of working age.

Statistics on smoking prevalence broken down by socioeconomic group show that smoking prevalence amongst individuals from the routine and manual occupational groups has been consistently higher than amongst individuals from the managerial and professional occupational groups. In 2019, 23.4 per cent of the routine manual stated they smoked, compared to 14.1 and 9.3 per cent registered by the intermediate and the managerial/professional occupations, respectively. Although smoking prevalence has been on a downward trend for all occupational groups, these figures are still indicative of a stark inequality in negative health outcomes by social strata. On a positive note, the inequality gap in smoking prevalence between the routine/manual and managerial/professional occupations *narrowed* since 2014 (from 17.3 to 14.1 percentage points in 2019). However, according to ONS (citing evidence from Public Health England (2020p)), when 2012 is adopted as the base year for comparisons,

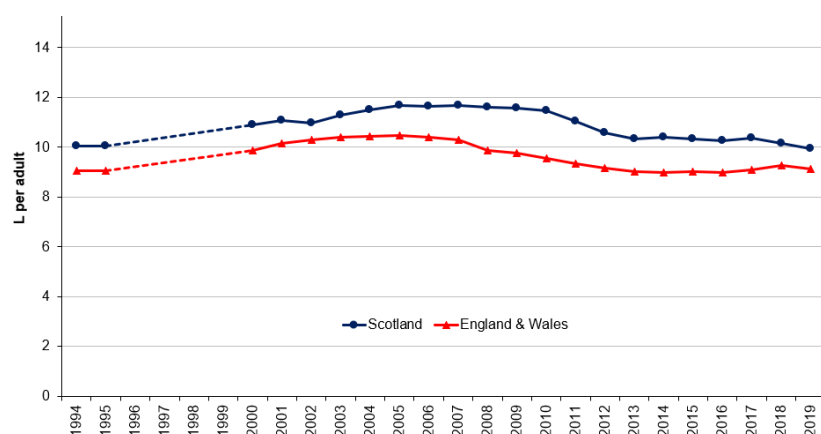
the gap in smoking prevalence in England *widened*, with unadjusted odds ratio increasing from 2.27 to 2.46 between 2012 and 2019 (with non-overlapping confidence intervals at the 95 per cent level).

7.3.2 Alcohol consumption

According to HSE data, the proportion of men consuming more than 4 units of alcohol on any day in the last week decreased from 37% in 2014 to 30% in 2019. In contrast, the proportion of women consuming more than 3 units of alcohol on any day in the last week increased from 25% in 2014 to 27% in 2019 (Figure 121 - online appendix). Amongst those most at risk of harm through heavy alcohol consumption, the proportion of men who consumed alcohol in excess of 14 units a week fell slightly from 31% in 2014 to 30% in 2019 while the proportion of women remained at 15% (Figure 103 – online appendix). Adults with higher household income were more likely to drink alcohol in excess of government guidelines (ONS & NHS Digital, 2019a) while adults living in deprived areas were more likely to experience alcohol-specific death (c.f. Figure 63).

Alcohol consumption varies between UK constituent countries. In 2018, adults in Scotland purchased on average 9.9 litres of pure alcohol compared to 9.1 litres in England and Wales (**Figure 41**). There was also a higher alcohol-specific death rate in Scotland than in England and Wales for both males and females (Figure 120 - online appendix). While adults in Scotland continue to consume more alcohol on average than adults in England and Wales, there was evidence the gap was closing. As noted above, in May 2018, Scotland introduced a minimum unit price for alcohol (50 pence per unit). **Figure 41** shows reductions of sales in Scotland in 2018 and 2019.

Figure 41 Volume of pure alcohol (litres) sold per adult (16+), Scotland and England & Wales, 1994-201



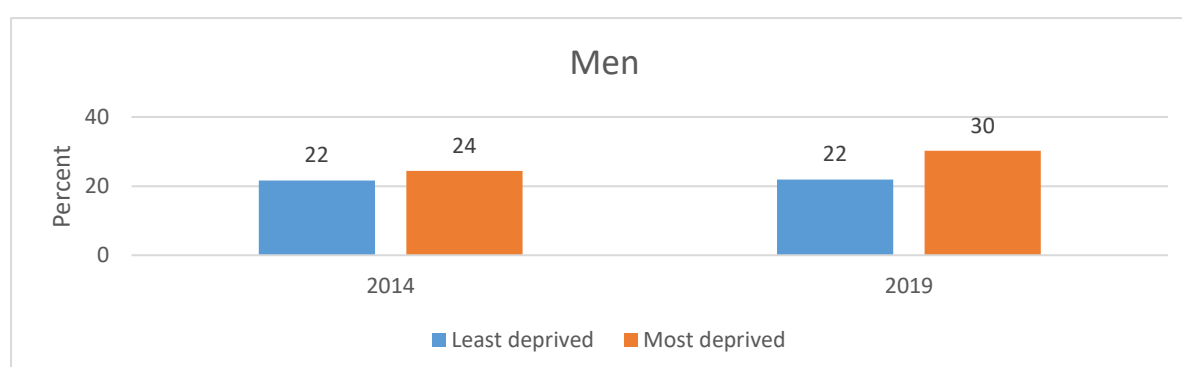
7.3.3 Obesity, physical activity and diet

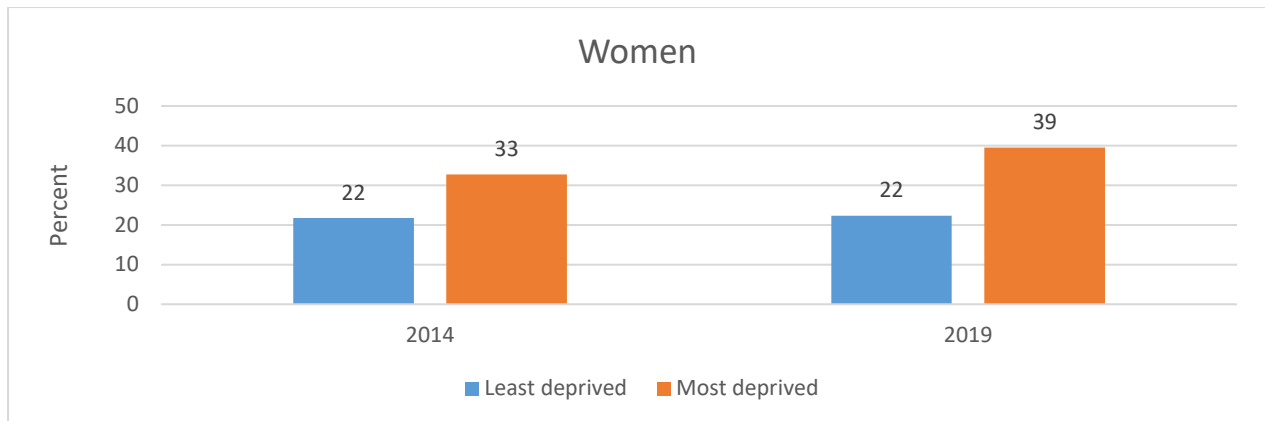
Obesity

According to Health Survey for England data, in 2019, 28% of English adults (aged over 16) were obese, 64% were either overweight or obese, and 3% were morbidly obese. By sex, 27% of men and 29% of women were obese and 68% of men and 60% women were either overweight or obese (ONS & NHS Digital, 2019b). Adult obesity prevalence increased by 2 percentage points between 2015 and 2019, and has been trending upward since 1993. Given this longterm trend, the year on year 1 percentage point decline in 2018 is notable (Figure 116 - Online appendix).

Adult obesity follows a strong social gradient. In 2019, 21.9% of men living in the least deprived quintile were obese compared to 30.2% in the most deprived quintile and 22.4% of women living in the least deprived quintile were obese compared to 39.5% in the most deprived quintile. The increase in the overall adult obesity rate between 2014 and 2019 was driven by increases in obesity prevalence among men and women living in the most deprived areas, while rates amongst the least deprived have remained constant. As a result of these differential trends, obesity inequalities widened for both men and women between 2014 and 2019 (Figure 42).

Figure 42 Adult obesity prevalence (%), most and least deprived IMD quintile, by sex, 2014 and 2019





Source: Health Survey for England 2019 (NHS Digital, 2020a) and 2014 (NHS Digital, 2015a)

Notes:

1. BMI status: Underweight <18.5kg/m²; Normal ≥18.5 to <25kg/m²; Overweight ≥25 to <30kg/m²; Obese, excluding morbidly obese ≥30 to <40 kg/m²; Morbidly obese ≥40kg/m².
2. 2014 figures are based on the IMD 2010 and 2019 figures are based on IMD 2019.
3. 2014 figures include one individual who gave self-reported weight, as the interviewer estimated that they were too heavy (more than 200kg) for the scales to measure accurately.
4. The data are age standardised.

Adult obesity also varies by ethnicity. Online Appendix Figure 117 shows the prevalence of overweight or obesity amongst adults aged 18 or over by ethnicity, derived from the Active Lives survey 2017/18. While HSE obesity data is recorded by a nurse, obesity data in the Active Lives survey is based on self-reported measures of height and weight, which may result in an underestimate (Public Health England, 2019a). In 2019/20, 67.58% of adults (aged 18 or over) from the Black ethnic group were either overweight or obese, compared to 59.7% from the Asian ethnic group, 59.6% from the Mixed ethnic group and 63.7% from the White ethnic group (Sport England, 2021).

The National Childhood Measurement Programme (NCMP) collects data on the height and weight of children in Reception (aged 4 to 5) and Year 6 (aged 10 to 11) in state schools across England. Obesity prevalence in the NCMP cannot be directly compared to adult obesity due to methodological differences. Overall childhood obesity prevalence has remained relatively stable in the recent period (Online Appendix Figure 105). In 2018/19, 20.2% of children aged 10 to 11 were obese, a 1.1 percentage point increase compared to 2014/15, and 9.7% of children aged 4 to 5 were obese, a 0.6 percentage point increase compared to 2014/15. Childhood obesity has also remained relatively stable in HSE data. Between 2008 and 2018, obesity prevalence among children aged 2 to 15 fluctuated between

a peak of 17.1% in 2014 and a low of 13.7% in 2012 and was 15% in 2018 (Figure 106).

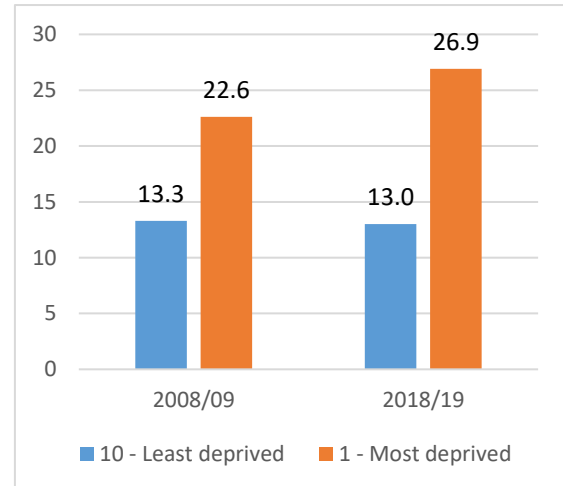
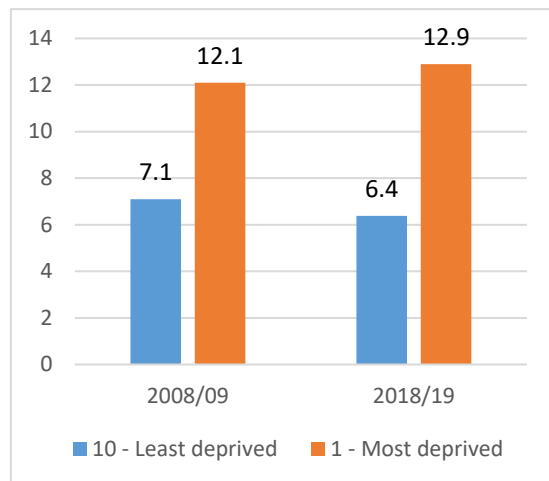
On childhood obesity inequalities, the NCMP data also shows that prior to the COVID-19 pandemic, children living in the most deprived neighbourhoods in England were more likely to be obese than children living in the most affluent neighbourhoods, and childhood obesity inequalities had been widening. In 2018/19, 12.9% of children aged 4 to 5 in the lowest deprivation decile were obese, compared to 6.4% in the highest decile, a 6.5 percentage point gap. Similarly, 26.9% of children aged 10 to 11 in the lowest deprivation decile were obese, compared to 13% in the highest decile, a 13.9 percentage point gap (Figure 43). Moreover, while overall child obesity prevalence has remained relatively stable in the recent period, between 2008/09 and 2018/19, prevalence *decreased* for children in the least deprived areas while increasing for children in the most deprived areas, widening inequalities over the decade. At age 4 to 5, the obesity prevalence gap widened from 5 percentage points in 2008/9 to 6 percentage points in 2018/19. At age 10-11, the obesity prevalence gap increased from 9.3 percentage points in 2008/9 to 13.9 percentage points in 2018/19 (Figure 43).

Childhood obesity prevalence varies by ethnicity and the particularly high rates of prevalence among adults from the Black ethnic minority group is also reflected in the child obesity figures. The gaps are evident at reception but widen by year six: with obesity affecting 20.2% of all children aged 10 to 11 in 2018/19 compared to 28.9% of those from a Black ethnic background (Figure 118 – online appendix).

Figure 43 Prevalence of obese (including severely obese) children, by Index of Multiple Deprivation (IMD) deciles 1 and 10 (based on the postcode of the school), England, 2008/09 and 2018/19

Reception (age 4-5)

Year 6 (age 10-11)



Source: National Child Measurement Programme (NHS Digital, 2019b)

Notes:

1. The Index of Multiple Deprivation (IMD) is the official measure of relative deprivation for small areas (lower super output areas) in England. IMD deciles are calculated by ranking the 32,844 small areas in England from most deprived to least deprived and dividing them into 10 equal groups. These range from the most deprived 10 per cent of small areas nationally (decile 1) to the least deprived 10 per cent of small areas nationally (decile 10).
2. It is likely that year 6 obesity prevalence in the first years of the NCMP (2006/07 to 2008/09) were underestimates due to low participation. This, and the impact of other improvements in data quality, should be considered when making comparisons over time. Please refer to annex B of the appendices for further details.

Physical activity

New guidelines on the recommended levels of physical activity necessary for health were published by the Chief Medical Officers of the four UK countries in 2019. This states that:

- Adults (aged 19 and over) should aim to be active daily. Over a week, activity should add up to at least 150 minutes of moderate intensity activity or 75 minutes of vigorous intensity activity per week, or a combination of both.
- Adults should also aim to build strength on at least two days a week.

- Children and young people (aged 5 to 18) should aim to be physically active for at least 60 minutes per day across the week.

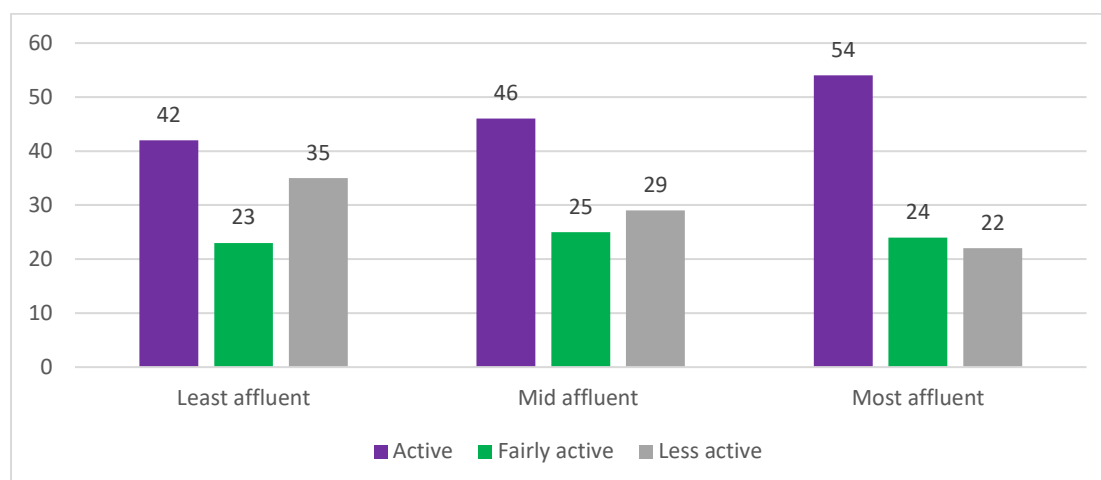
(NHS Digital, 2020f)

Public Health England data suggests that the proportion of adults in England (aged 19 and over) has broadly remained stable in the recent period. In 2018/2019, 67.2% of adults (aged 19 and over) were considered active based on government recommendations, compared to 66.1% in 2015/16 (Figure 98 – online appendix). In 2018/2019, 57.3% of adults (aged 19 and over) in the lowest deprivation decile were physically active, compared to 73.5% of adults in the highest decile (Figure 119 - online appendix).

The proportion of children (aged between 5 and 15) meeting government guidelines for physical activity is recorded in the Health Survey for England in 2008, 2012 and 2015. In 2015, 21.6% of children met the government guideline, a 3.5 percentage point increase from 2012 (Figure 99 - online appendix). According to the 2018/19 Active Lives Children and Young People survey, 47% of children aged 5 to 16 were engaged 60 minutes or more of physical activity every day (up from 43% in 2017/18) while 2.9% of children were engaged in less than an average of 30 minutes of physical activity a day (Figure 100 - online appendix).

Child physical activity varies according to family affluence. Based on the Active Lives Children and Young People survey data, in 2018/19, 35% of children in the least affluent families did fewer than 30 minutes of activity a day, compared to 22% of children from the most affluent families (Figure 44).

Figure 44 Physical activity levels, Children and Young People in school years 1-11 (aged 5 to 16) by family affluence, England, 2018/19 (percentage active)



Source: NHS Digital (2020f) based on Active Lives Children and Young People survey 2018/19

Notes:

1. The Family Affluence Scale provides an indication of the social status of children and young people's families. The scale is derived from a series of questions about their home and family such as car ownership, computers, and foreign holidays. Care should be taken when looking across year groups as the age of the child is likely to impact on certain elements of the scale (e.g. families with older children may be more likely to own digital devices and travel abroad)
2. 'Active'=average of 60+ minutes a day 'Less active' = less than 30 minutes of activity a day. Further details are available in the Active Lives Children and Young People survey 2018/19 report.

Diet

As noted in section 4.2.1, the government's 2016 Childhood Obesity Action Plan introduced the 'sugar tax' on soft drinks. Data from the National Diet and Nutrition survey indicates that consumption of sugar sweetened soft drinks was already in decline before the introduction of the levy, with decreases between 2008/09 – 2009/10 and 2014/15 – 2015/16 across all age groups. This decrease was statistically significant for children aged 4 to 10 and 11 to 18 and adults aged 19 to 64 (Table 37 - online appendix). In addition, there was a 28.8% reduction in average sugar content of drinks subject to the 'sugar tax' between 2015 and 2018 (Public Health England, 2019f). The levy was also positively evaluated in a recent research study (Pell et al., 2021; Jones et al., 2021), which identified reductions in the sugar content of soft drinks purchased by households one year after the

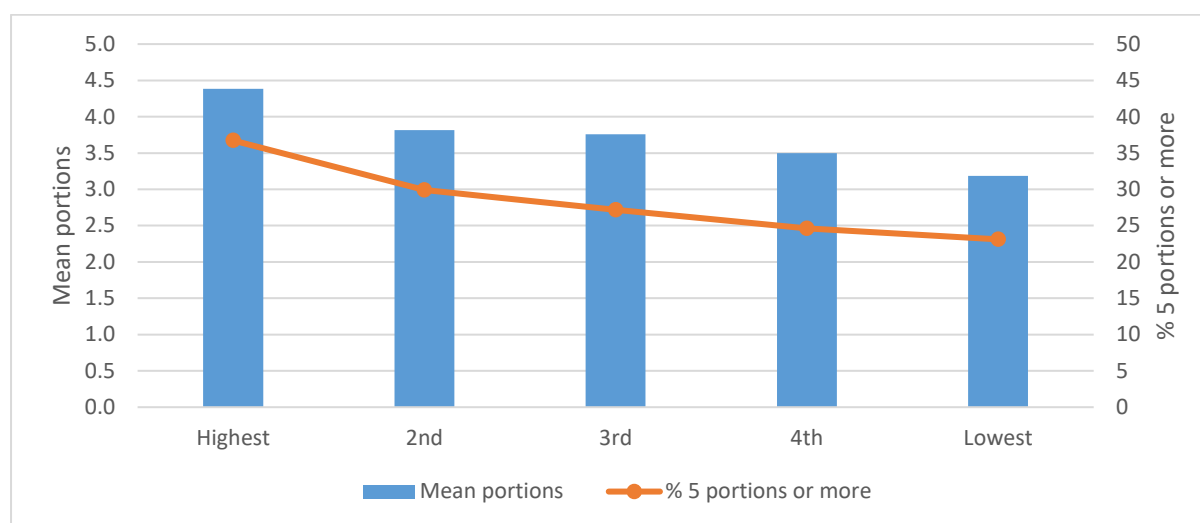
implementation of the levy compared with pre-existing trends from prior to its announcement.

In relation to the broader sugar reduction programme, Public Health England reported that between 2015 and 2018, there was only a 2.9% reduction in average sugar content across retail and manufacturer branded products with overall progress falling substantially below the 20% by 2020 target (Public Health England, 2019f). The voluntary programme was more successful in relation to some specific food categories such as breakfast cereals (8.5% reduction) and yoghurts and fromage frais (10.3% reduction) (Public Health England, 2019f).

Data from the National Diet and Nutrition survey collected between 2014 and 2016 shows that UK adults (aged 19 to 64) consume excessive amounts of saturated fat. During this period, average saturated fat intake for adults made up 12.5% of daily calorie intake, 1.5 percentage points more than the 11% recommended maximum (Public Health England, 2018c).

In our previous paper we reported that fruit and vegetable consumption had deteriorated following the recession (Vizard & Obolenskaya, 2015). According to HSE data, adult fruit and vegetable consumption has recovered following a post-recession decline, notwithstanding a decline between 2017 and 2018. In 2018, adults consumed 3.7 mean portions of fruit and vegetables per day, an improvement of 0.2 mean portions per day compared to 2015 (Figure 101 - online appendix). HSE 2017 data provides evidence that adult fruit and vegetable consumption varies according to household income. In 2017, adults in the highest quintile of equivalised household income consumed 4.4 mean portions of fruit and vegetables per day, compared to 3.2 mean portions for adults in the lowest quintile (Figure 45).

Figure 45 Adult (age 16+) fruit and vegetable consumption by quintile of equivalised household income, England, 2017



Source: Health Survey England 2017 (NHS, 2018a)
 Notes: Data in this table have been age-standardised

Fruit and vegetable consumption for children (aged 5 to 15) has not shown the same signs of improvement as adults. In 2018, children (aged 5 to 15) consumed 3 mean portions of fruit and vegetables per day, a decline of 0.2 mean portions compared to 2015 (Figure 102 – online appendix). According to 2014-16 National Diet and Nutrition survey data, sugar constituted 13.5% of daily calorie intake for 4 to 10 year olds and 14.1% for 11 to 18 years, well in excess of the 5% recommendation (Public Health England, 2018c).

There is no government measure of malnutrition and estimates of malnutrition prevalence in the UK vary around 3% (The World Bank, 2019) and 5% (BAPEN, 2015) of the population. The British Association for Parenteral and Enteral Nutrition (BAPEN) estimate that older people and people in hospital and social care experience increased risk of malnutrition (BAPEN, 2018). The FAO concept of food insecurity considers whether people have limited access to food due to lack of income or other resources, providing a perspective that looks beyond hunger towards the goal of ensuring access to nutritious and sufficient food for all, based on SDG Indicator 2.1.2. FAO (2020) found that in 2017-2019, 0.9 million people in the UK (1.3% of the total population) experienced severe food insecurity (defined as 'experiencing hunger'), a decline from 1.2 million people in

2014-16 (1.9% of total population), while 3.4 million people (5% of the population) experienced either severe or moderate food insecurity in 2017-19. Pereira et al. (2017) analysed food insecurity in households with children aged under 15. They found that in 2014-15, 10.4% of UK children aged under 15 lived with an adult who experienced severe food insecurity, the largest proportion among EU nations.

New experimental estimates of food security were published as part of the HBAI 2019. These suggested that 5 million individuals (8%) in the UK experienced food insecurity in 2018/19 where there is risk of, or lack of access to, sufficient, varied food. Among those living in relative income poverty (after housing costs), 20% were found to be food insecure. Food insecurity was defined for this analysis as households with low food security (where the household reduced the quality, variety, and desirability of their diets, but the quantity of food intake and normal eating patterns were not substantially disrupted) or very low food security (at times during the last 30 days, eating patterns of one or more household members were disrupted and food intake reduced because the household lacked money and other resources for food) (DWP, 2021).

7.3.1 Early childhood vaccinations

Prior to the pandemic, there were also concerns that progress in extending coverage of the MMR vaccine had stalled. NHS Digital (2020) shows that coverage rates for childhood measles, mumps, rubella vaccinations in England had been declining in the period before the pandemic following a long period of improvement. The percentage of children receiving their first MMR dose by 24 months peaked at 92.7% in 2013/14 and subsequently declined, with rates falling to 90.3% in 2018/19 with a very slight rise to 90.6% in 2019/20. Coverage of second MMR doses by age 5 had also been tailing off and stood at 86.8% in 2019/20 - again a slight year-on-year improvement on the figures for 2018/19, but nevertheless representing a decline from a previous peak, and a coverage rate that is substantially lower than the WHO target of 95%. Moreover, the UK lost its measles free status in 2018, following outbreaks of measles.

7.3.2 International comparisons

Smoking

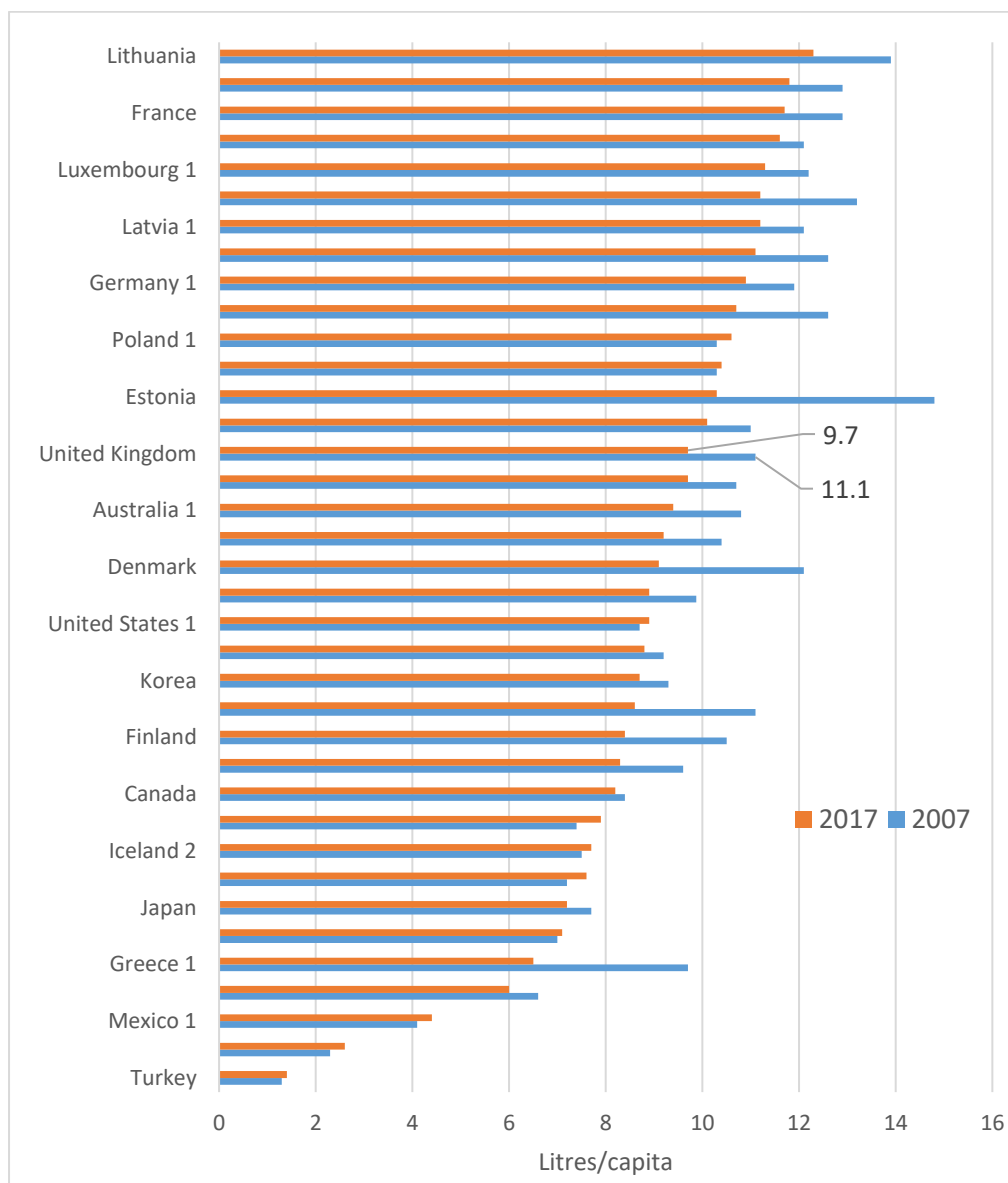
International comparisons of childhood obesity prevalence are methodologically fraught due to variations in country-level recording

practices (Public Health England, 2016). Ng et al. (2014) collected obesity data from a range of surveys, reports and studies and used statistical models to correct for cross-national inconsistencies. They estimated that in 2013, the UK ranked 9 out of 34 OECD countries for obesity and overweight prevalence among children aged 2 to 19 (also see (Public Health England, 2016)). Based on the available OECD data, the UK recorded a mid-low ranking when compared internationally on rates of obesity in adults over the period 2000-2018, (18+ years) (OECD, 2019c). In 2000, the UK ranked four out of seven countries with comparable data, and by 2005 had slid down the rankings to seven out of nine countries. Although the ranking rose slightly in 2014, by 2018 the UK ranked low again at five out of seven countries. Eurostat (2020) data shows a similarly low ranking of UK rates of obesity in comparison to other European countries. In 2014 (latest data), the UK ranked 27 out of 31 countries with comparable data on adult obesity rates. The UK rate (19.8%) is higher than the EU average and the EU average for 2014 reduces from 15.4% to 14.9% when the UK is not included. In comparison, Romania, Italy and Norway ranked first, second, and third respectively. Countries that ranked lower than the UK were Turkey, Hungary, Latvia and Malta, ranked at 28, 29, 30 and 31 respectively.

Alcohol consumption

In 2017, the UK ranked equal 21 out of 36 OECD countries for alcohol consumption, defined in relation to annual sales of pure alcohol in litres per capita. In 2017, UK adults consumed 9.7 litres of pure alcohol on average per year, exceeding the OECD average of 8.9 litres (Figure **46**). The UK's international ranking improved slightly from 2007, when it ranked equal 23 out of 36 OECD and adults consumed an average of 11.1 litres of pure alcohol per year.

Figure 46 Alcohol consumption (annual sales of pure alcohol in litres per person aged 15 years and older), OECD countries, 2007 and 2017 (or nearest year)



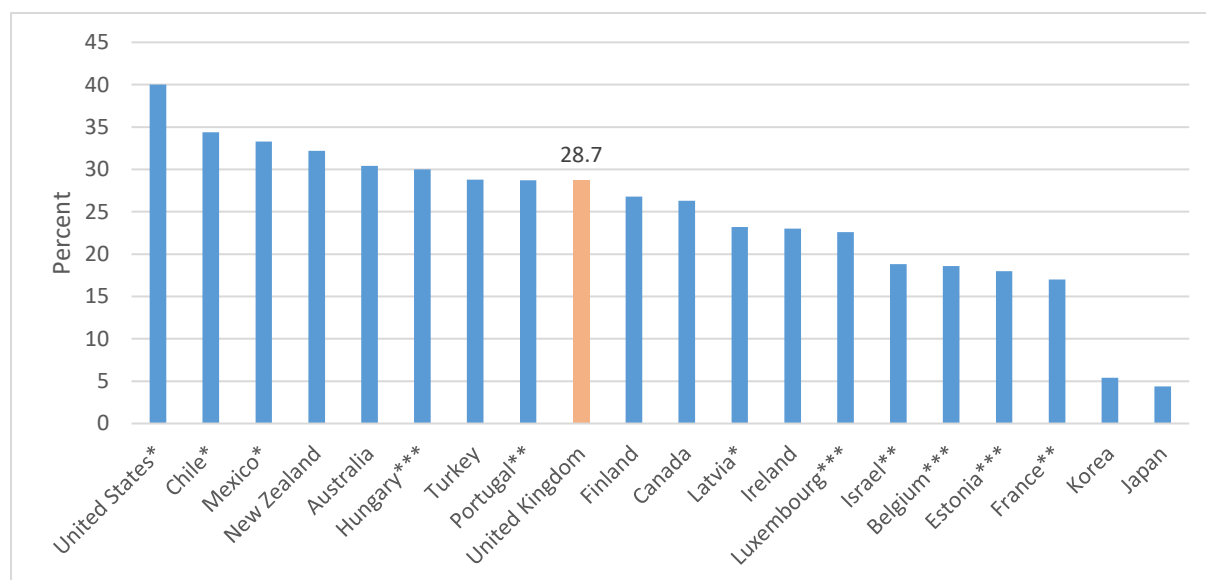
Source: OECD Health Statistics (OECD, 2019c)

Notes: 1. 2016; 2. 2018; 3. 2015

Obesity

Adult obesity prevalence is relatively high in the UK and in 2017 the UK ranked 9 out of 20 OECD countries with comparable data.

Figure: Obesity rate in adults (15 years and over), 2017 or nearest year (up to 2014)



Source: OECD Health Statistics, 2018, Non-medical determinants of health: Body weight, extracted 06/11/2019 (OECD, 2019c). Notes: All countries reported in this table use measured data. * data from 2016, ** data from 2015, *** data from 2014. Obesity is defined as a BMI of 30 kg/m² or more (BMI \geq 30 kg/m²). The United Kingdom and Portugal have the same obesity rate. Ranking in this table is based on alphabetical order. While this chart follows OECD formatting and presents data for the United Kingdom, data are derived from the Health Survey for England and represent only England. For more information about data sources, see: <https://www.oecd.org/els/health-systems/Table-of-Content-Metadata-OECD-Health-Statistics-2019.pdf>.

7.4 Longevity and mortality

7.4.1 Life expectancy

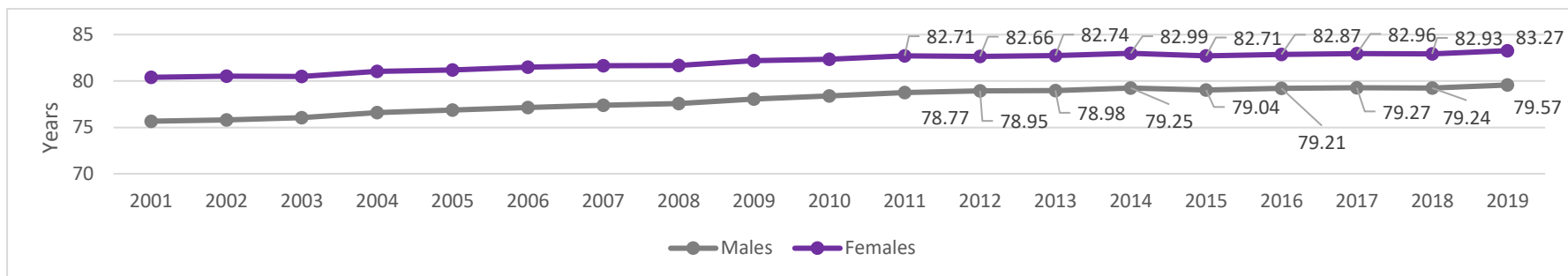
Overall trends

Improvements in life expectancy at birth slowed down and stalled during the second decade of the twenty-first century.

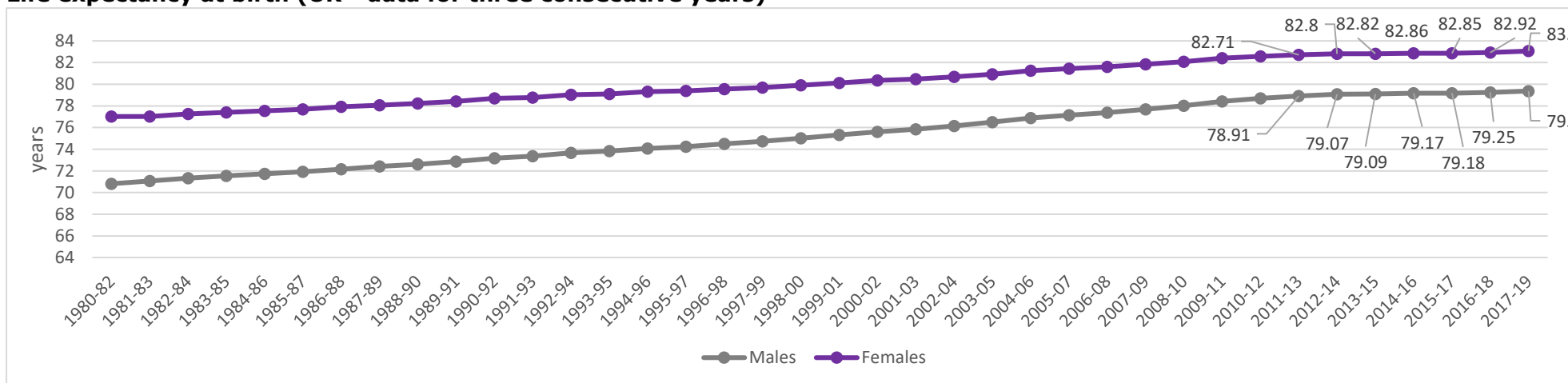
- Annual data (Panel A) on life expectancy at birth for males and females in the UK is set out in Figure 47. An overall pattern of stagnation is observed between 2015 and 2019 for both males and females, with a slight improvement in trend in the annual data for 19 (the final observation prior to COVID-19). Looking at the year-on-year changes during the 2010s, there were unusual *declines* in life expectancy at birth in 2012, 2015 and 2018 for females, and in 2015 and 2018 for males.
- The ONS also produce life expectancy data covering three consecutive years in order to remove the effects of annual fluctuations. This data shows that during the 2010s improvements in life expectancy in the UK stagnated for both females and males with lower average rates of increase after 2011 compared to before 2011. Following a sustained period of stagnation, the most recent data points covering 2017-2019 showed an improvement (Panel B).
- Stalling of rates of improvement in life expectancy at birth during the second decade of the 21st century are apparent in all four countries of the UK (Panel C).
- Adverse trends during the second decade of the 21st century were particularly apparent in life expectancy at older ages (at ages 65, 85 and 90). At age 65, there was stagnation over much of the period after 2011 for both males and females. At ages 85 and 90, for the 2010s as whole, there was an overall pattern of flatlining combined with notable year on year *declines* at ages 85 and 90 in 2013-15 and 2015-2017. There was an improvement in the data points for 2017-2019 with year-on-year increases in life expectancy at older ages for both males and females (Panels D, E and F).

Figure 47 Improvements in life expectancy at birth stalled during the second decade of the 21st century

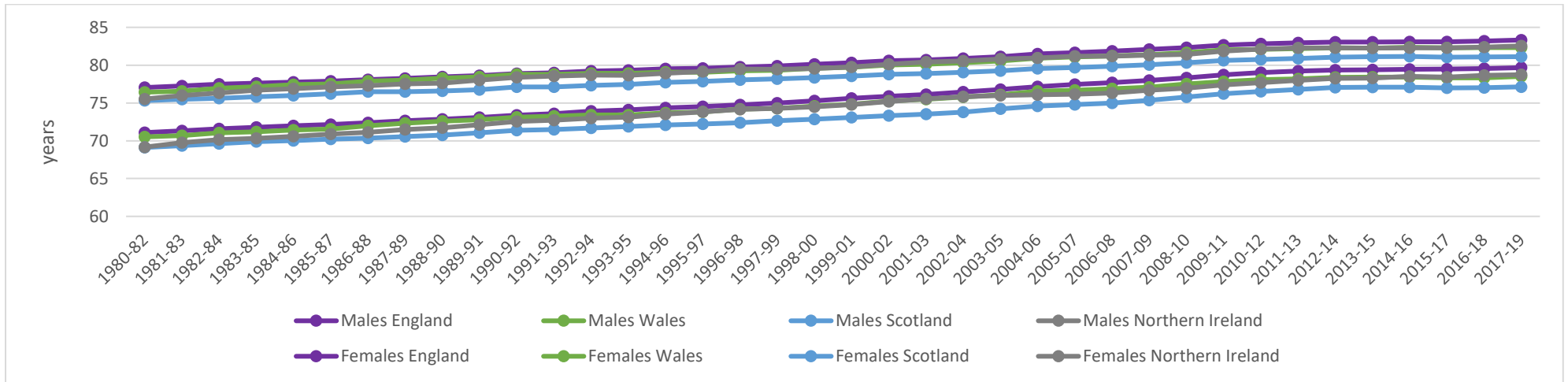
A. Life expectancy at birth (UK – annual data)



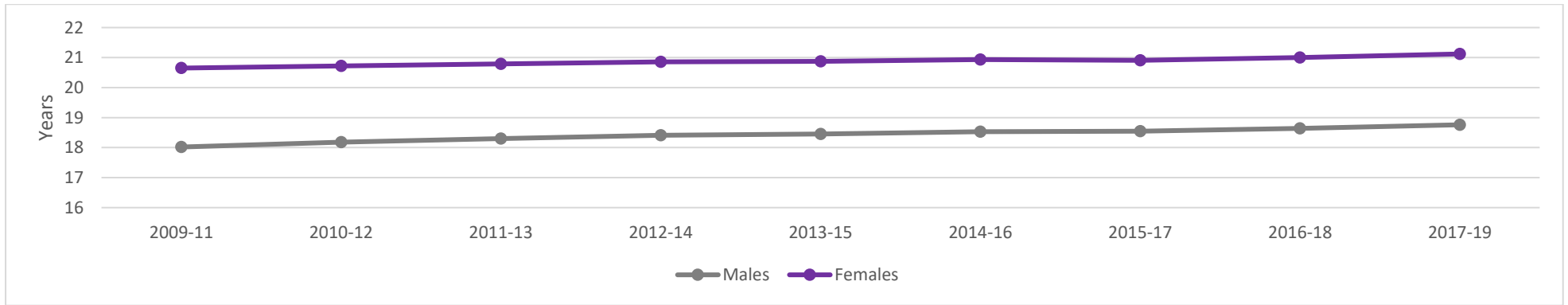
B. Life expectancy at birth (UK - data for three consecutive years)



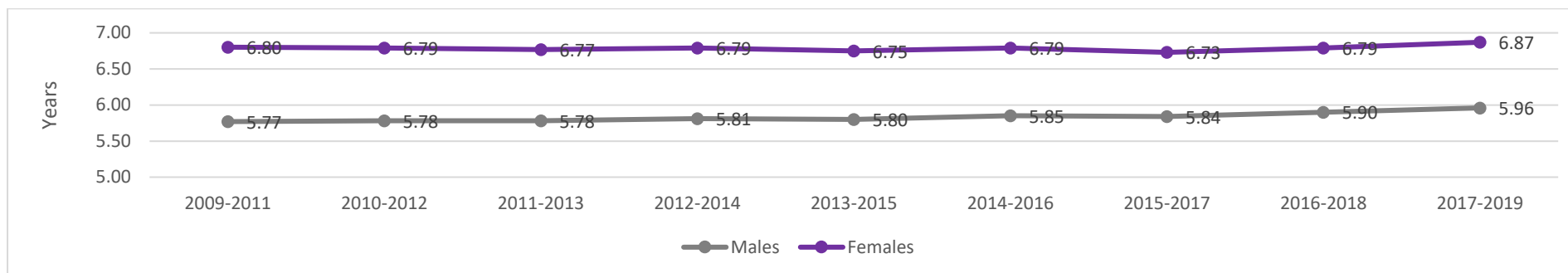
C. Life expectancy at birth by country (UK - data for three consecutive years)



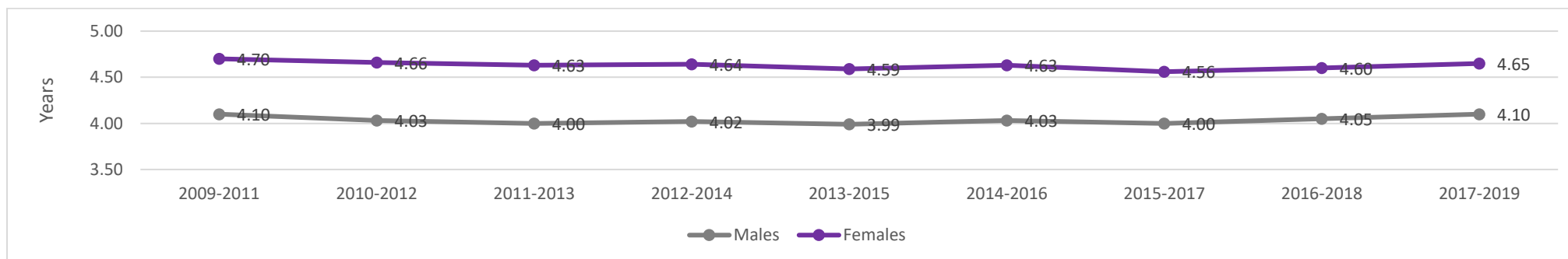
D) Life expectancy at age 65 (UK - data for three consecutive years)



F) Life expectancy at age 85 (UK – data for three consecutive years)



G) Life expectancy at age 90 (UK – data for three consecutive years)



Source: Office for National Statistics (2020d, 2020e, 2020f)

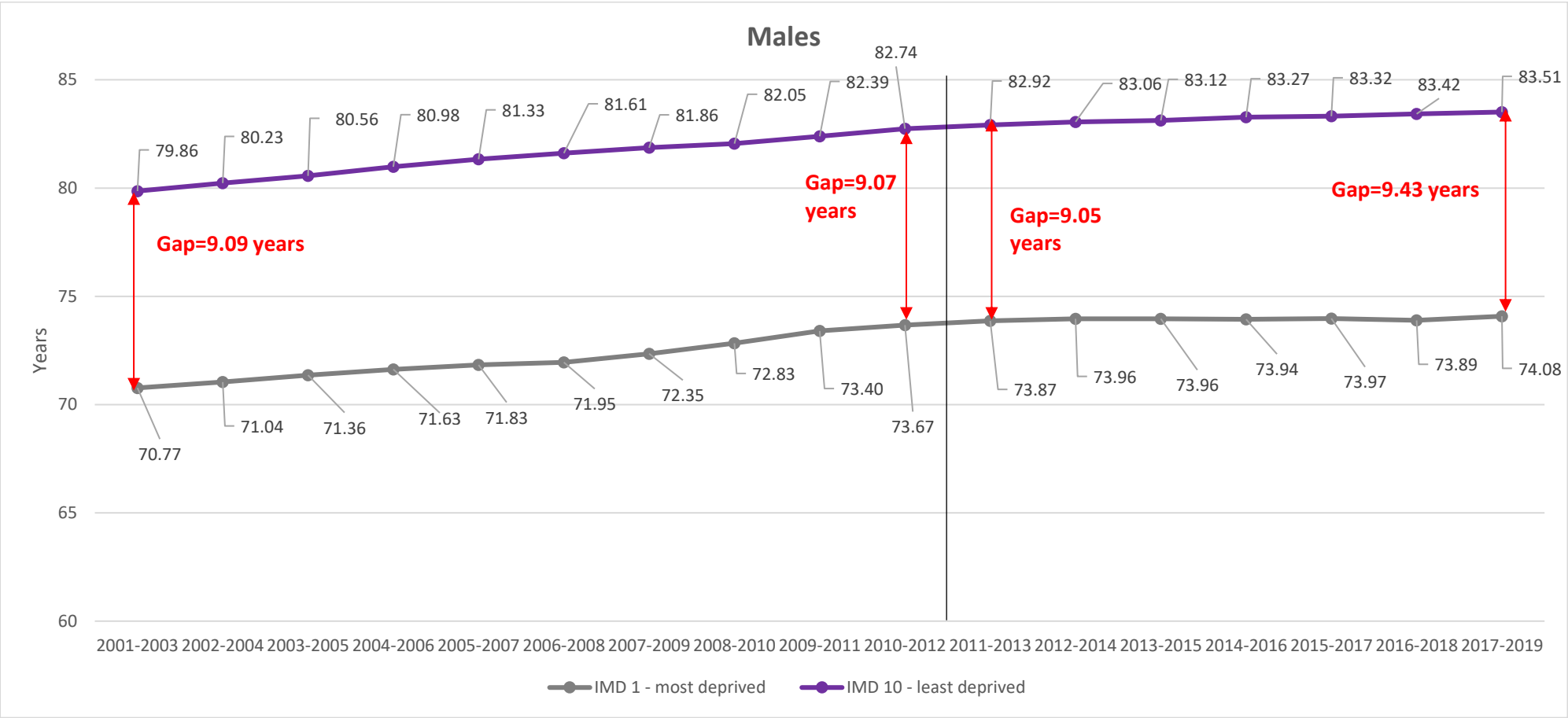
Inequalities by area deprivation

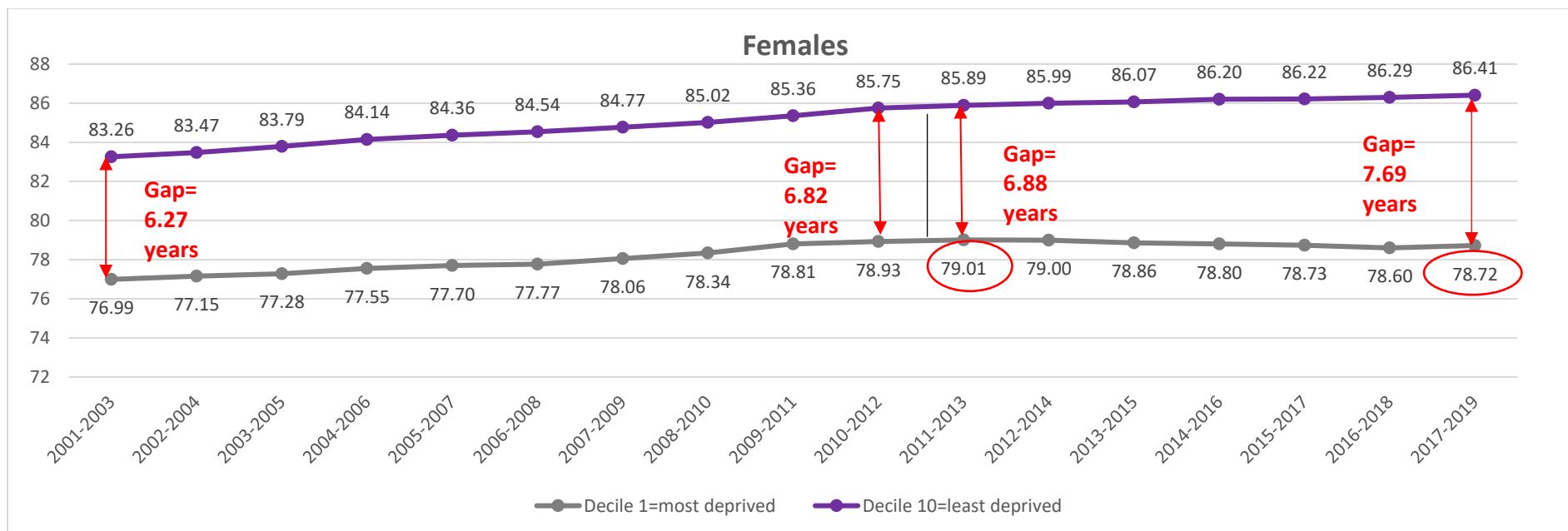
In 2017-2019, on the eve of the COVID-19 pandemic, life expectancy at birth for males in the least deprived areas in England was 83.51 years compared to 74.08 years for males in the most deprived males. Life expectancy at birth for females in the least deprived areas in 2017-19 was 86.41 years, compared to 78.72 years for females in the most deprived areas.

Figure 48 shows that the stalling of improvements in life expectancy at birth affected both males and females across English index of multiple deprivation (IMD) deciles during the second decade of the 21st century. The adverse trends were most marked for those in the most IMD deprived areas, particularly amongst females in the poorest areas. Female life expectancy at birth in the most deprived areas *declined* by 0.29 years between 2011-2013 and 2017-19, whereas female expectancy at birth in the least deprived areas *increased* over this period.

As a result of these differential trends, inequalities in female life expectancy at birth *increased* between 2011-2013 and 2017-19. There was a gap of 7.69 years between female life expectancy at birth in the most and least deprived areas in 2017-2019, with a widening of the female life expectancy gap by 0.81 years between 2011-2013 and 2017-19. Inequalities in male life expectancy at birth also increased over this period, with a widening of gap to 9.43 years compared with a gap of 9.05 years in 2011-13.

Figure 48 Life expectancy by most and least deprived decile (England)



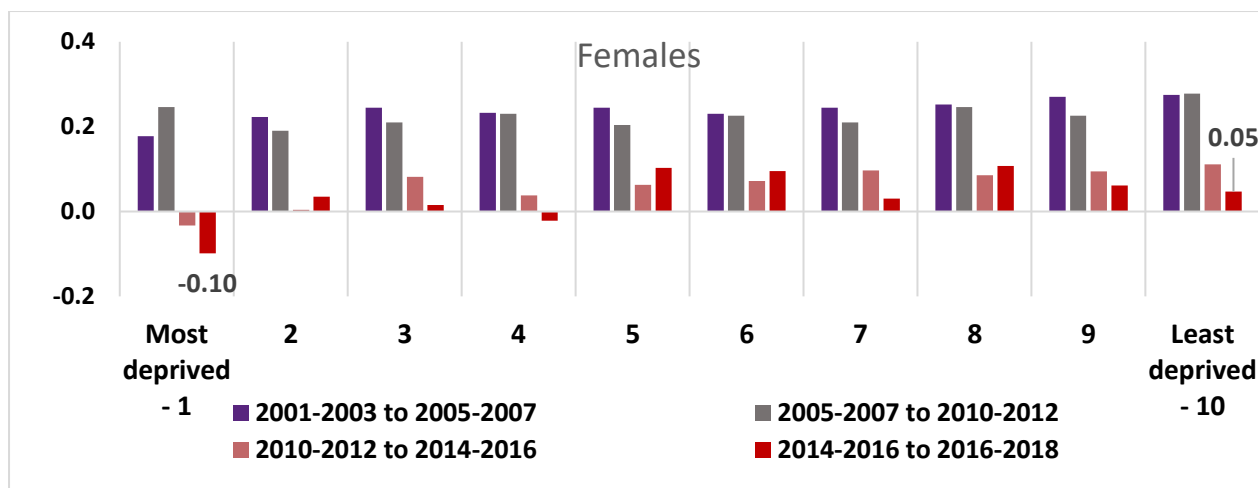


Source: Public Health England (2018b) for data points 2001-2003 to 2010-2012; ONS (2020m) for datapoints 2011-2013 to 2016-2018 and ONS (2021b) for estimates for 2017-2019. **Note:** IMD is the official measure of relative deprivation for small areas in England. IMD 1 represents the most deprived decile and IMD 10 represents the least deprived decile. Estimates are for 2001-03 to 2009-11 use IMD 2010; estimates for 2010-12 -2015-17 use IMD 2015; estimates for 2016-18 and 2017-2019 use IMD 2019.

Figure 49 provides further insights into the extent of the slowdown in improvements in life expectancy at birth in the second decade of the 21st century and the reversal of previous improvements for females in the most deprived areas. The figure plots the average annual changes in life expectancy at birth during three consecutive periods (2001-3 to 2005-7, 2005-7 to 2010-12, 2010-12 to 2014-16 and 2014-16 to 2016-18), represented by the purple, grey, pink and red bars respectively. The declining heights of the bars reflects the reductions in average annual reductions in life expectancy across deciles during each consecutive period, with the pattern of declining height of the bars for each decile reflecting the cumulative reduction in average annual rates of improvement in each time period. For males and females in the most deprived decile, the annual absolute change in the period 2014-16 to 2016-18 was *negative* – showing that life expectancy *declined*. This effect was most pronounced for females.

Figure 49 Average annual absolute change in life expectancy at birth (years) by English deprivation decile

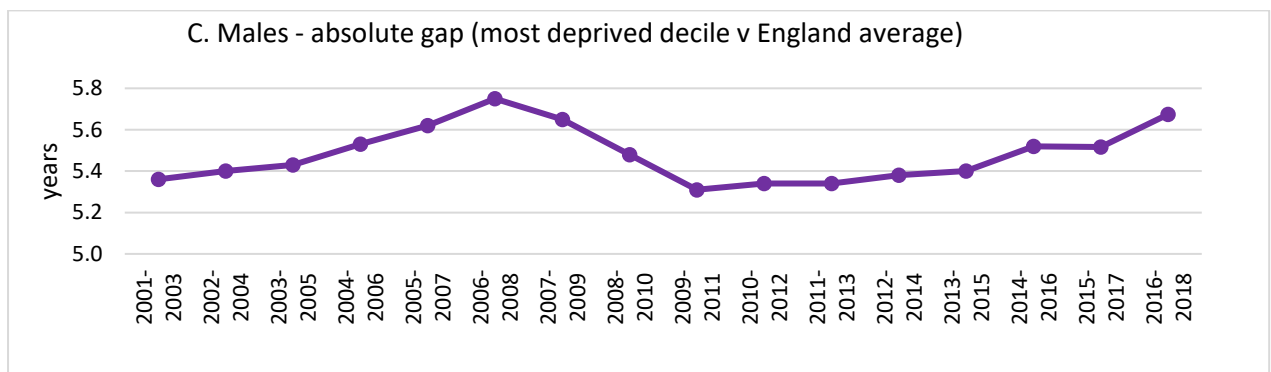
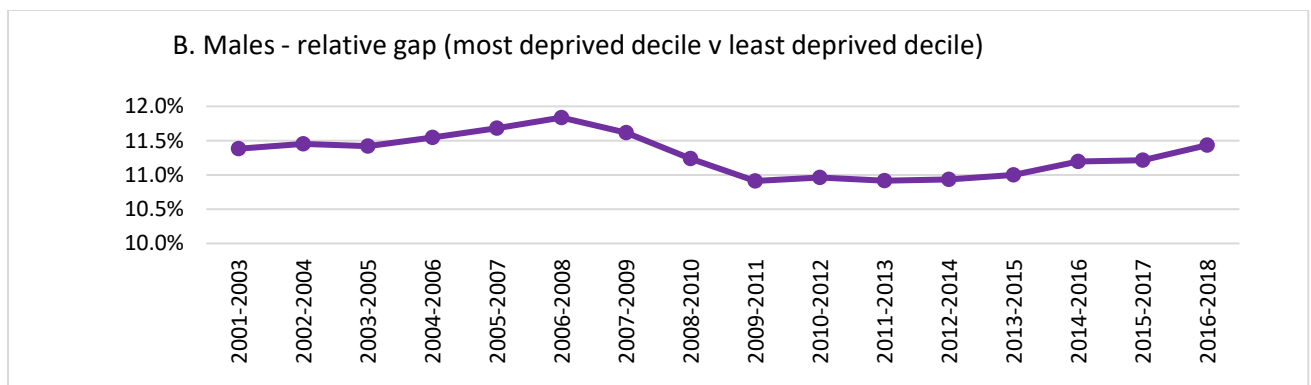
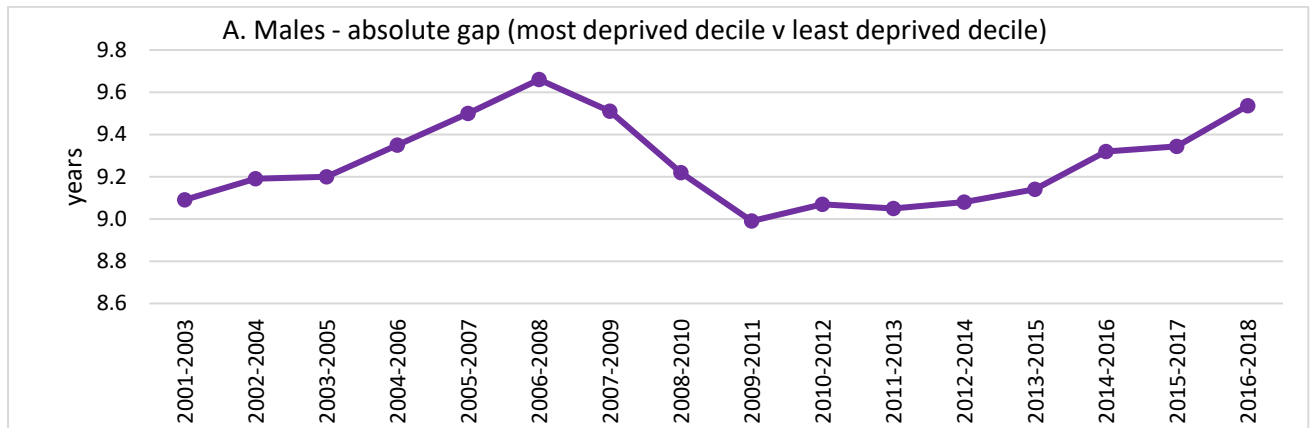




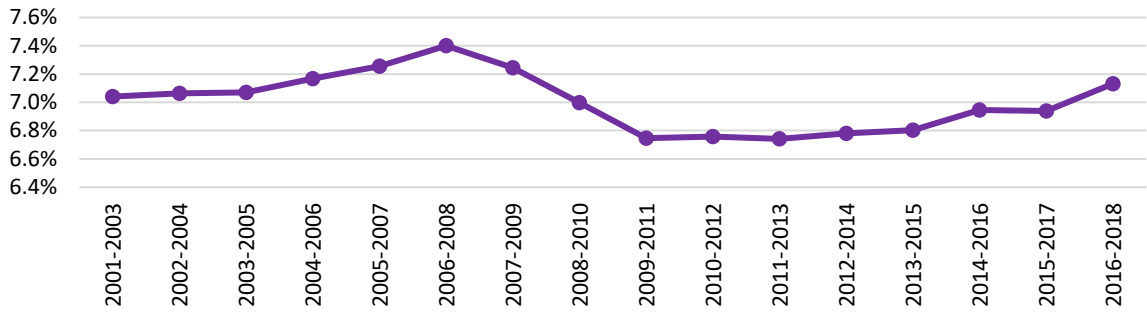
Source: CASE analysis using Public Health England (Public Health England, 2018b) (for data points 2001-2003 to 2010-2012) and ONS (2020m) data (for datapoints 2011-2013 to 2016-2018). A positive value indicates an improvement in life expectancy within the period. Index of multiple deprivation decide.

Figure 50 plots the absolute and relative life expectancy gaps for males and females in the least and most deprived deciles in England between 2001-3 and 2016-18. Panels A-D set out trends for males and show that whether the focus is on absolute gap (the absolute difference in years, or the range) or relative gaps (in terms of proportional or percentage differences) and whether comparisons are drawn between men in the most deprived decile and those in the least deprived decile on the one hand, or with the overall (average) rates for England on the other, a period of widening gaps is observed 2001-3 to 2006-8, followed by a period of narrowing gaps to 2009-2011, followed by a further widening of inequalities during the second decade of the 21st century. Panels E-H set out trend for females, for whom there was very little progress in narrowing either the relative or absolute gaps in the first decade of the 21st century, followed by a period during which the absolute and relative gaps widened during the second decade.

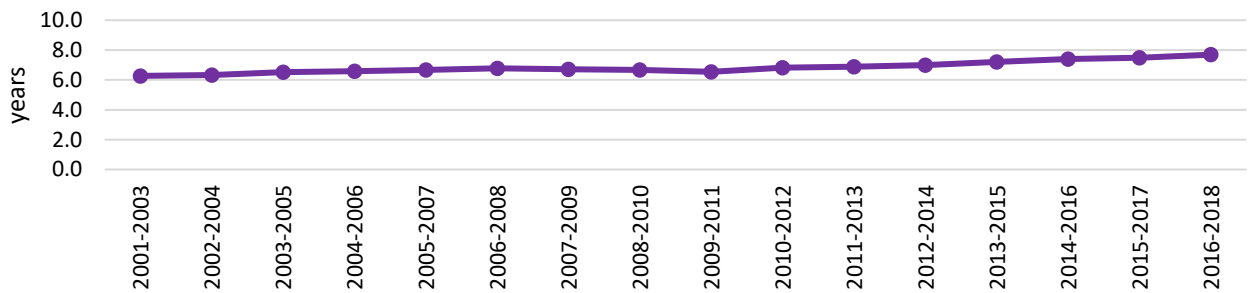
Figure 50 Absolute and relative gaps in life expectancy at birth for males and females (England)



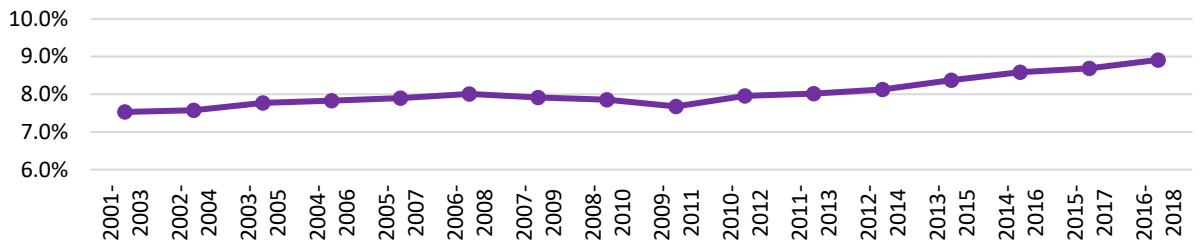
D. Males - relative gap (most deprived decile v England average)



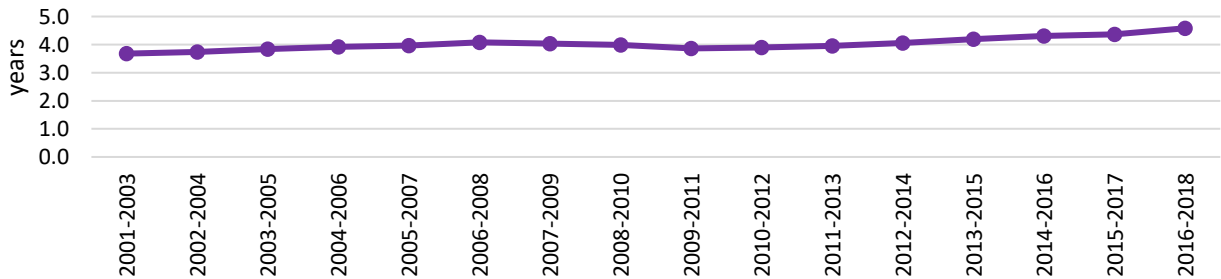
E. Females, - absolute gap (most deprived decile v least deprived decile)

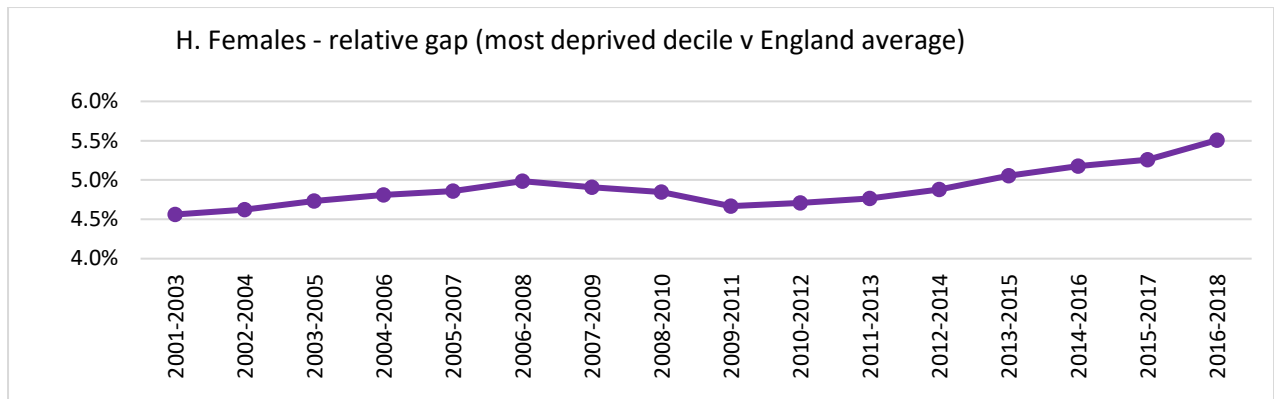


F. Females, - relative gap (most deprived decile v least deprived decile)



G. Females - absolute gap (most deprived decile v England average)





Source: CASE calculations using (Public Health England, 2018b) (for deprivation decile data points 2001-2003 to 2010-2012); ONS (2020m) data (for deprivation decile datapoints 2011-2013 to 2016-2018); and ONS (2020b) for overall (average) England life expectancy. Notes: Absolute gaps are calculated as the difference in years between life expectancy in the least and most deprived deciles (the range). Relative gaps are calculated as (1) the difference in life expectancy in the most and least deprived deciles, as a percentage of life expectancy in the least deprived decile; and (2) the difference in life expectancy in the most deprived decile and overall (average) England life expectancy, as a percentage of overall (average) England life expectancy.

Inequalities by geographic area

Life expectancy by region is shown in Table 32 - online appendix. In 2017-19, life expectancy at birth for males was highest in London (80.9 years) and lowest in the North East (78.0 years) - a gap of 2.9 years. Similarly, life expectancy at birth for females was highest in London (84.7 years) and lowest in the North East (81.8 years) - also a gap of 2.9 years. Improvement in life expectancy between 2008-10 and 2017-18 was greatest in London for both males (2.2 years) and females (1.8 years). Gains between these periods were lowest in the North East (1 year) followed by the South West (1.1 years) for males; and in the East Midlands (0.7 years) followed by the North East (0.8 years) and the South West, West Midlands, Yorkshire and the Humber and East of England (0.9 years).

Variation in life expectancy in the UK is even wider at the local authority level than at the regional level. Online Appendix Table 39 shows the 10 local government areas with the highest and lowest male and female life expectancy at birth across the UK from 2013-15 to 2017-19. Absolute gaps widened for both males and females, with the difference between male life expectancy in the highest and lowest ranking local government areas increasing from 10 years in 2013-15 to 11.3 years in 2017-19; while an increase in the gap from 7.9 years to 8.7 years over the same period was recorded for females. Online Appendix Table 39 shows that there was little

change in the ranking of local areas over this period, with Glasgow City consistently having the lowest male life expectancy in the UK, and Blackpool and Dundee City consistently in second and third position from the bottom. For females, the worst performers were West Dunbartonshire (2013-15 to and 2014-16) and Glasgow City (2015-17 to 2017-19) with Dundee City, West Dunbartonshire, Inverclyde, Blackpool, Manchester and North Lanarkshire also performing badly.

Analysis in Marmot (2020, p. 17) shows that the observed differences in life expectancy inequalities at the regional level are accounted for by differences in life expectancy rates amongst the most deprived deciles within each region. In this sense, region “doesn’t matter” for the affluent - but makes an important difference for the most deprived. In addition, observed adverse trends in life expectancy by region in the recent period are explained by trends for the most deprived decile within each region. While life expectancy *increased* for the most affluent within each region, life expectancy for the most deprived deciles decreased in the North East, Yorkshire and the Humber, and the East of England for males; and in all regions except London, West Midlands and North West for females. The largest decreases were observed in the most deprived decile in the North East for both females and males. Marmot (2020) concluded that the adverse trends in overall life expectancy in the period are in part explained by the deterioration in key social determinants of health amongst the most deprived within each region.

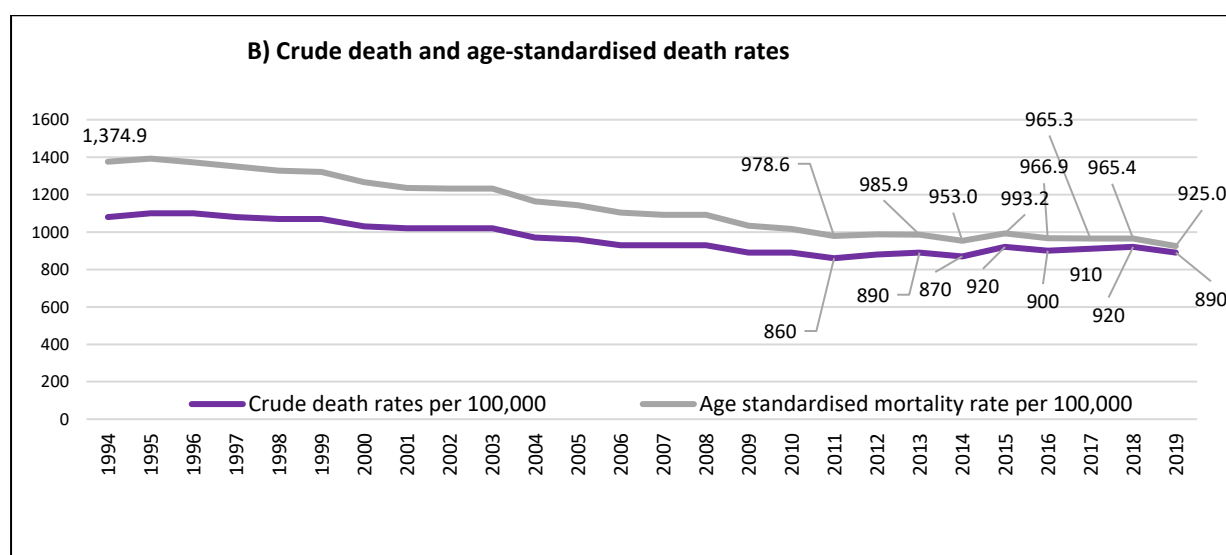
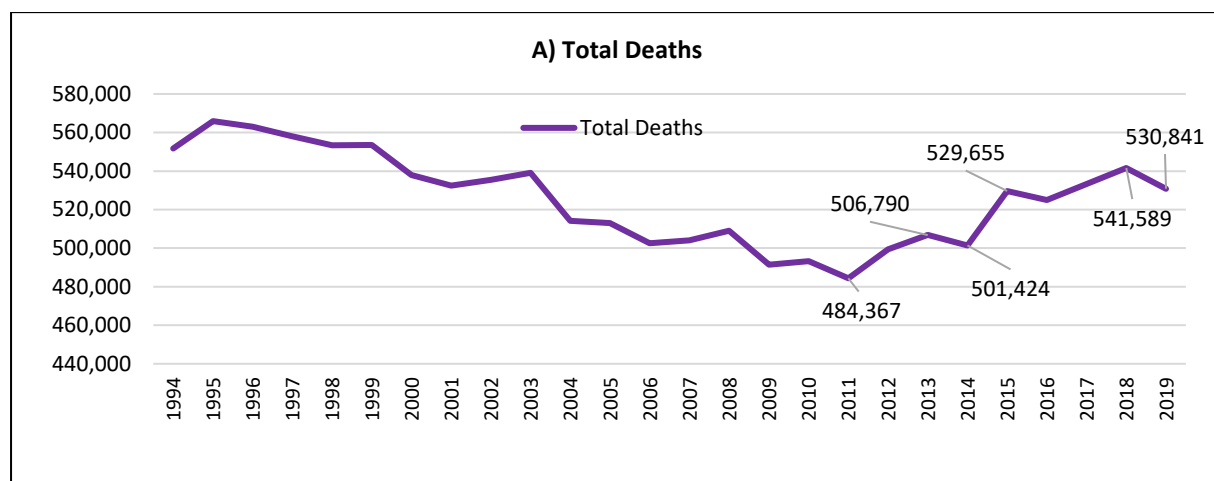
7.4.2 General mortality

The adverse trends in life expectancy during the second decade of the 21st century were driven by adverse trends in overall mortality rates after 2011.

Figure 51 shows that the total number of deaths in England and Wales was on a declining trend during the first decade of the 21st century and fell to a low of 484,367 in 2011. In contrast, during the second decade of the 21st century, the total number of deaths was on an increasing trend, reaching a peak of 541,589 in 2018 and then falling back to 530,841 in 2019. Improvements in the annual crude death rate, which adjusts for population increases, also stalled during the 2010s, and the crude death rate was *higher* in 2019 than it had been in 2011 (at 890 per 100,000 compared to 860 per 100,000). Within this overall trend, there were notable year-on -year *increases* in the crude death rate in 2015 and 2018. The age-standardised mortality rate further adjusts for the age structure of the population. Improvements in the age-standardised mortality rate also slowed down during the 2010s, with an unusual *increase* from 953 per

100,000 in 2014 to 993.2 per 100,000 and a marginal increase in 2018, followed by a year-on-year improvement in 2019.

Figure 51 Mortality was high in the current period, with a slowdown in improvements in the overall mortality rate (England and Wales)



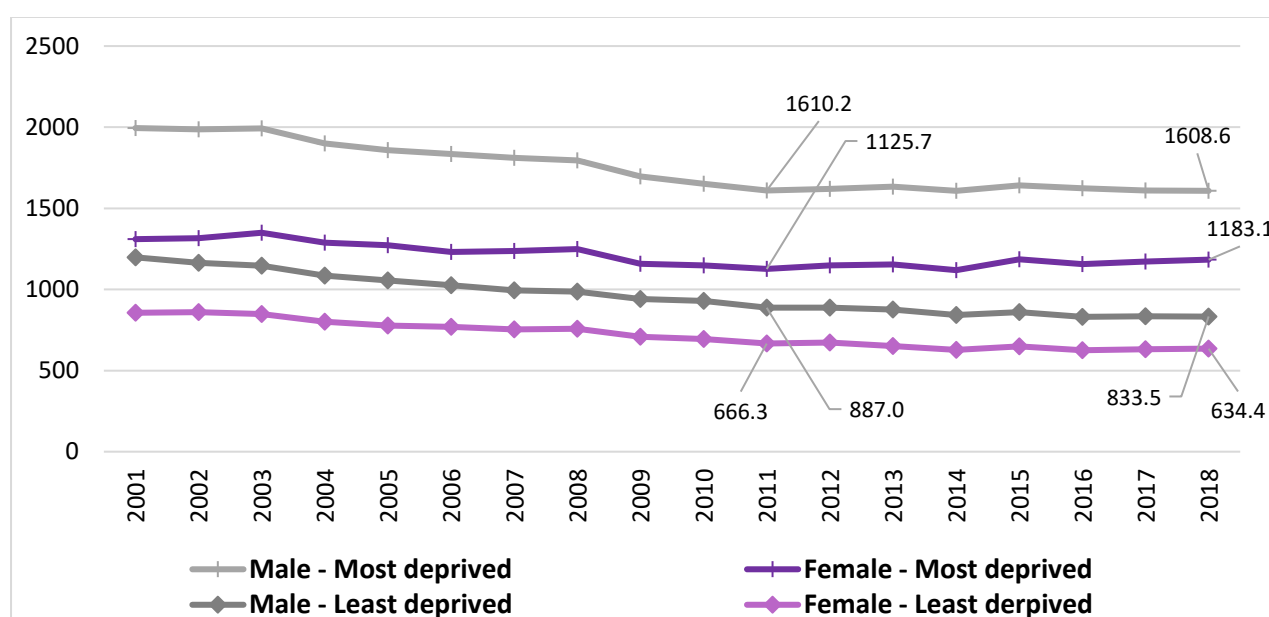
Source: ONS n.d. (Office for National Statistics, 2020o). Notes: Panels 1 and 2: death figures are based on deaths registered rather than deaths occurring in a calendar year. 2. The figures in panel B are standardised to the 2013 European Standard Population, expressed per 100,000 population; they allow comparisons between populations with different age structures, including between males and females and over time.

Looking at breakdowns by socioeconomic disadvantage in England, the slowdown in mortality improvements during the second decade of the 21st century is observed across deprivation deciles. This observation is confirmed by ONS analysis of standardised mortality rates using segmented

regression techniques, which identifies a breakpoint in progress after 2011 across social groups, with rates of improvement slowing down after 2011 for males and females living in the most and least deprived deciles (Office for National Statistics, 2020).

Nevertheless, the adverse mortality trends observed during the second decade of the 21st century were most pronounced amongst the most deprived, with gaps in standardised mortality rates *increasing* as a result between 2011 and 2018 from 723.2 to 775.1 for males and from 459.4 to 548.7 for females (**Figure 52**).

Figure 52 Age-standardised mortality rates per 100,000 population by area deprivation (England and Wales)



Source: (Office for National Statistics, 2020)

Notes:

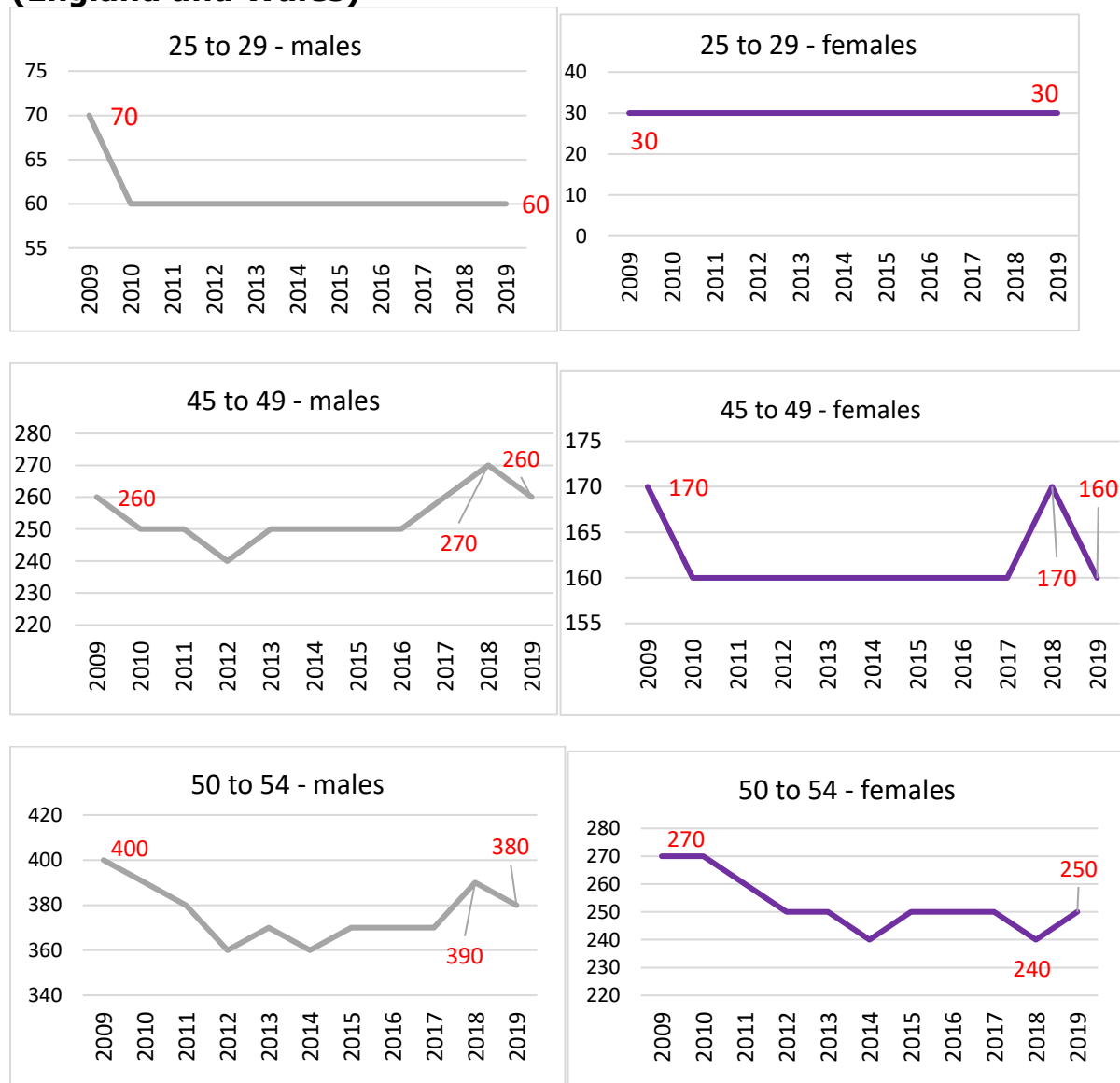
1. Age-standardised mortality rates per 100,000 population, standardised to the 2013 European Standard Population. 2. Figures exclude non-residents, based on boundaries as of August 2019. 3. Deprivation deciles are based on the Index of Multiple Deprivation (IMD), which is the official measure of relative deprivation with decile 1 representing the most deprived areas and decile 10 representing the least deprived areas.

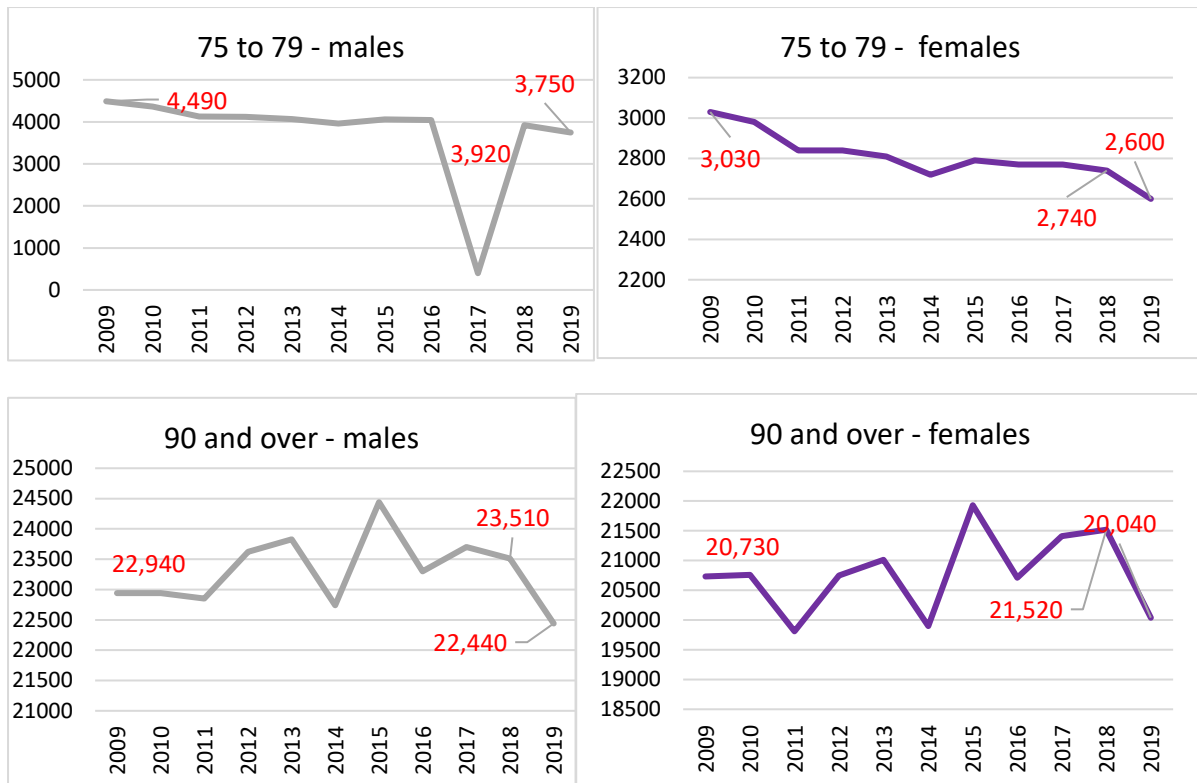
Looking at breakdowns by age (Figure 53), the adverse trends in mortality rates during the second decade of the 21st century are particularly apparent amongst older adults. Amongst the 'oldest of the old' (those aged 90 or above), age-specific death rates were *higher* in 2018 than they had been in 2011 for both men and women, with particularly unusual and steep year-on-year increases recorded between 2014 and 2015. This was followed by steep falls for both men and women 2019, the last full year of data before

the pandemic. An unusual increase in year-on-year increases in mortality rates for females aged 75-79 was also recorded between 2014 and 2015.

While mortality rates amongst mid-life and younger adults are substantially lower, adverse trends in the second decade of the 21st century are nevertheless evident for several mid-life and young adult age groups. For example, mortality rates were higher in 2018 than in 2011 for males aged 45-49, whilst progress in reducing mortality amongst both males and females aged 25-29 stalled (Figure 53).

Figure 53 Age-specific mortality rates per 100,000 population (England and Wales)





Source: Office for National Statistics (2020o). Note: Death figures are based on deaths registered rather than deaths occurring in a calendar year.

7.4.3 Avoidable mortality

ONS introduced a new system of classification of avoidable deaths based in international definitions. This use the following concepts:

- **Preventable mortality:** deaths that can be mainly avoided through effective public health and primary prevention interventions;
- **Treatable mortality:** deaths that can be mainly avoided through timely and effective healthcare interventions, including secondary prevention and treatment;
- **Avoidable mortality:** deaths that are either preventable or treatable.

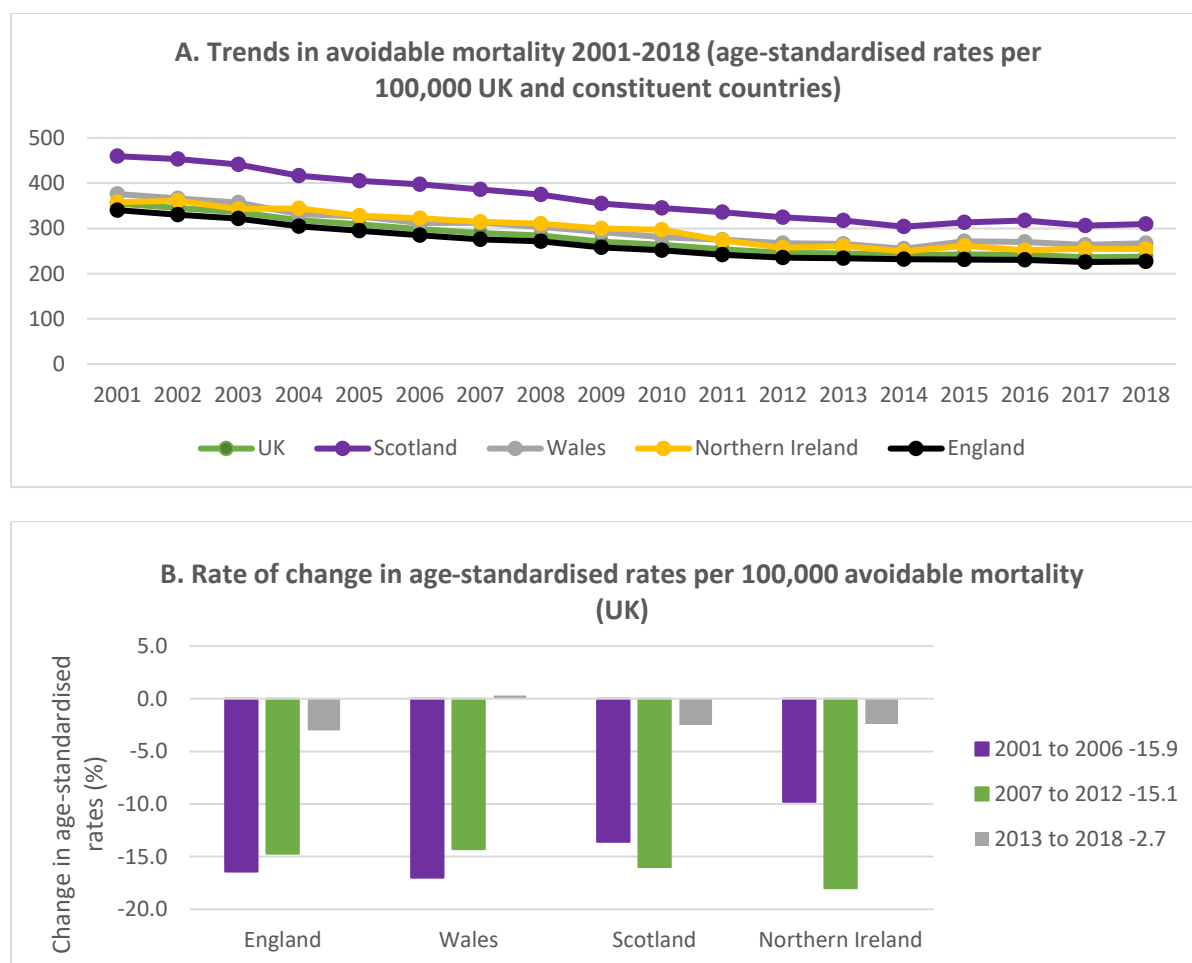
Based on these definitions, ONS estimated that in 2018, approximately 22% of deaths in the UK can be classified as analysis classified as 'avoidable' with an age standardised avoidable mortality rate of 237.9 deaths per 100,000 of the population. Of the avoidable daths in 2018, 64% could be attributed to causes considered preventable and 36% to treatable conditions. A substantial proportion of the deaths classified as avoidable

were in 2018 were from cardiovascular diseases, respiratory diseases, injuries and alcohol and drug related deaths and some cancers and infectious diseases (ONS 2020l and Office for National Statistics, 2020r).

Figure 54 shows that while there was a substantial reduction in mortality that is classified as avoidable using ONS definitions between 2001 and 2018, improvements in avoidable mortality stalled between 2014 and 2018, with unusual year on year increases in 2014 and 2016. The adverse trends are apparent in data for the UK as a whole and in data for England, Scotland, Wales and Northern Ireland looked at separately, with notable flatling and / or year-on-year increases between 2014 and 2015.

On the eve of the pandemic, rates of avoidable mortality were considerably higher in Scotland than in the other constituent countries of the UK and were lowest in England (Office for National Statistics, 2020l; ONS, 2019k; Hawkes, 2019a; Office for National Statistics, 2019a). Looking at breakdowns by local authority in England and Wales for 2016-2018, Blackpool and Knowsley had the highest rates for males and females respectively (rates of 355.3 deaths per 100,000 males and 192.3 deaths per 100,000 females respectively). Looking at breakdowns in treatable mortality in 2018 by Clinical Commissioning Groups (CCGs) in England and Health Boards in Wales, NHS Bradford City CCG and NHS Blackpool CCG had the highest rates for men and women respectively (rates of 168.4 deaths per 100,000 males and 134.4 deaths per 100,000). In Wales, Aneurin Bevan University Health Board recorded the highest rate for males and Cwm Taf Morgannwg University Health Board for females ONS (2020k).

Figure 54 Trends and change in avoidable mortality



Source: ONS (2020k).

Notes:

Panel A:

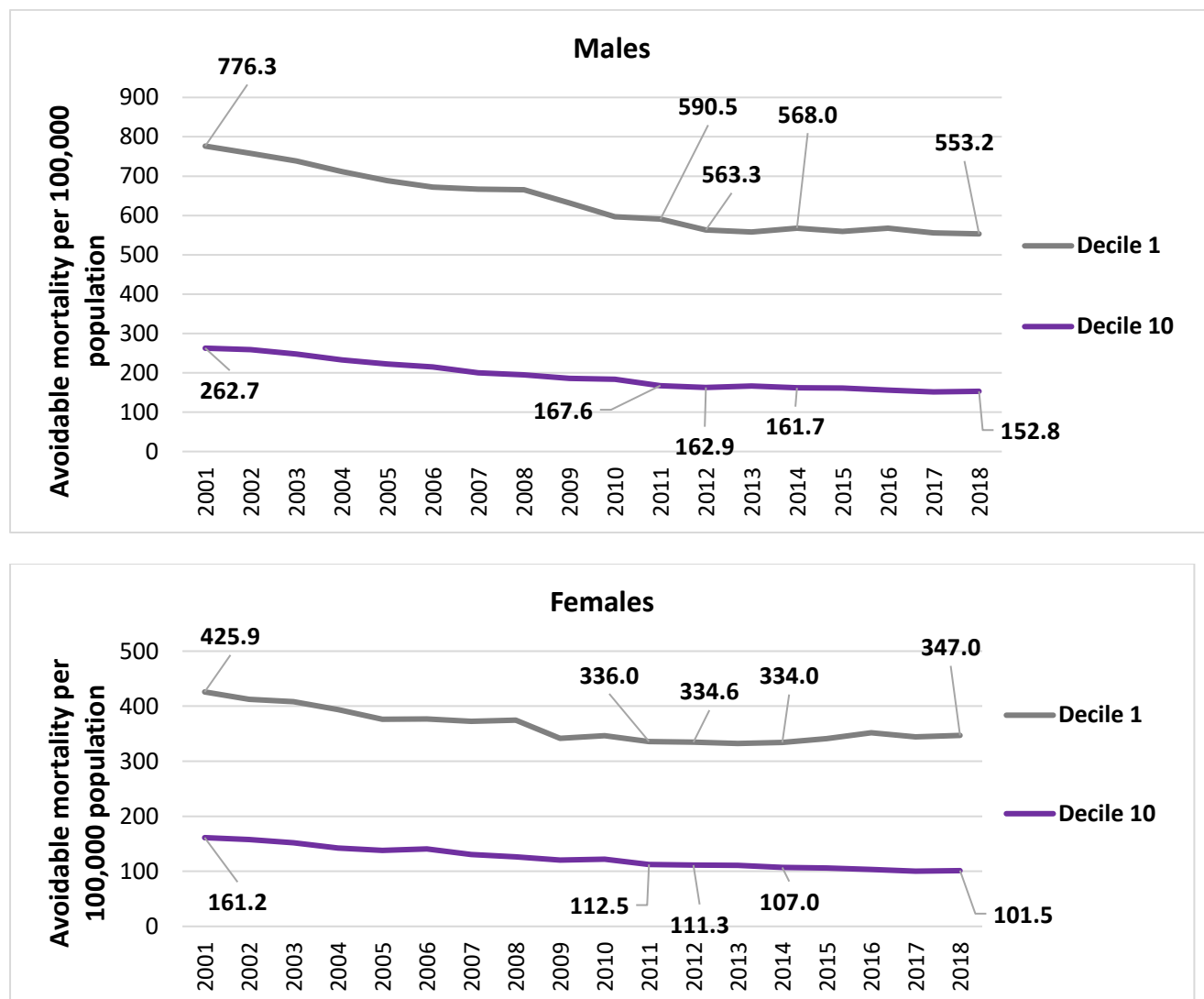
1. Age-standardised mortality rates are expressed per 100,000 population and standardised to the 2013 European Standard Population. Age-standardised mortality rates are used to allow comparison between populations that may contain different proportions of people of different ages.
2. Deaths of non-residents are excluded for England, Wales and Northern Ireland and included for the UK and Scotland.
3. Figures are for deaths registered in each calendar year.

Panel B:

1. The rate of change in avoidable mortality is calculated by subtracting the earlier mortality rate from the later mortality rate for each time period, before dividing by the earlier mortality rate. This is expressed as a percentage.
2. Deaths of non-residents are excluded for England, Wales and Northern Ireland and included for the UK and Scotland.
3. Figures are for deaths registered in each calendar year.

Figure 55 shows rates of avoidable death in England by IMD deprivation decile. It shows that there were very substantial gaps in the prevalence of avoidable mortality rates between individuals living in the most and least deprived deciles for both males and females throughout the period 2001-2018. In addition, while inequalities in avoidable mortality narrowed over this period, there was little further progressing in narrowing the deprivation gaps in avoidable mortality after 2011. Between 2014 and 2018, there were small declines in avoidable mortality rates among males in the most deprived decile and males and females in the least deprived deciles. However, for females in the most deprivation decile, avoidable mortality rates *increased*. As a result of these trends, the avoidable mortality gap for men remained broadly unchanged between 2014 and 2018, while the gap for women *widened*.

Figure 55 Age-standardised avoidable mortality rates by deprivation decile (England)



Source: (Office for National Statistics, 2020q)

Notes:

1. Figures are for deaths registered in each calendar year.
2. Figures for England exclude deaths of non-residents.
3. Age-standardised mortality rates are expressed per 100,000 population and standardised to the 2013 European Standard Population.
4. Deprivation deciles are based on the Index of Multiple Deprivation (IMD) which is the official measure of relative deprivation. IMD 2004 was used for data years 2001 to 2003, IMD 2007 was used for years 2004 to 2006, IMD 2010 was used for years 2007 to 2010, IMD 2015 was used for years 2011 to 2015 and IMD 2019 was used for years 2016 to 2018.

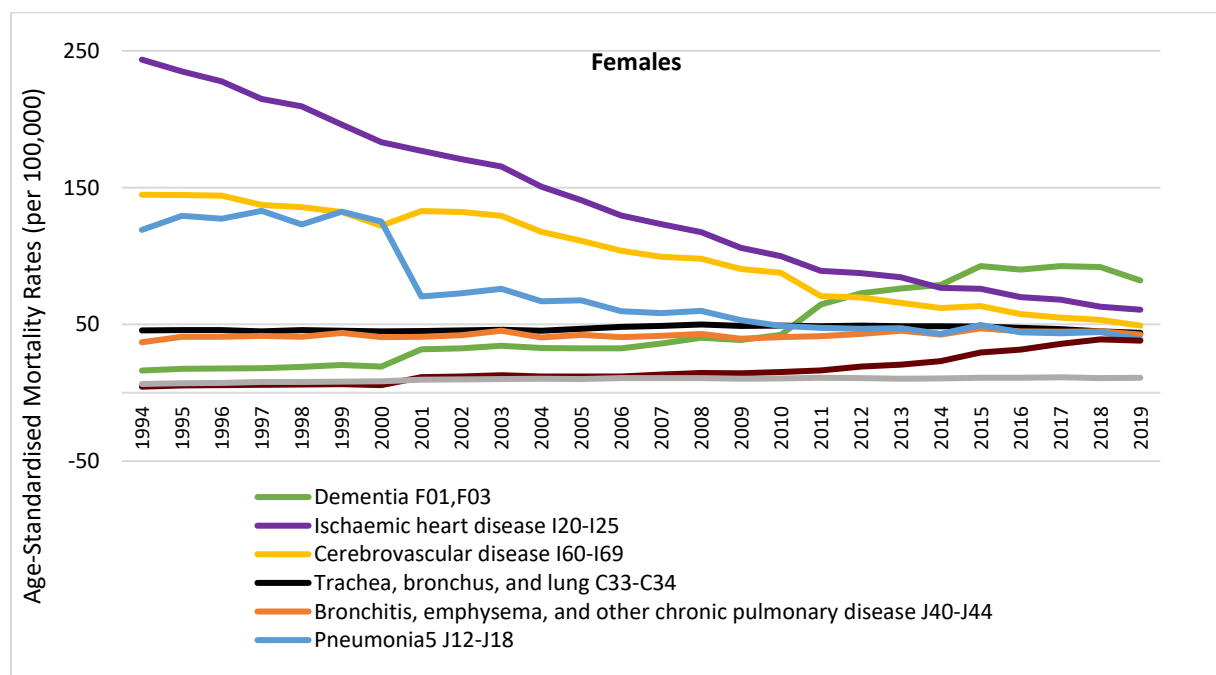
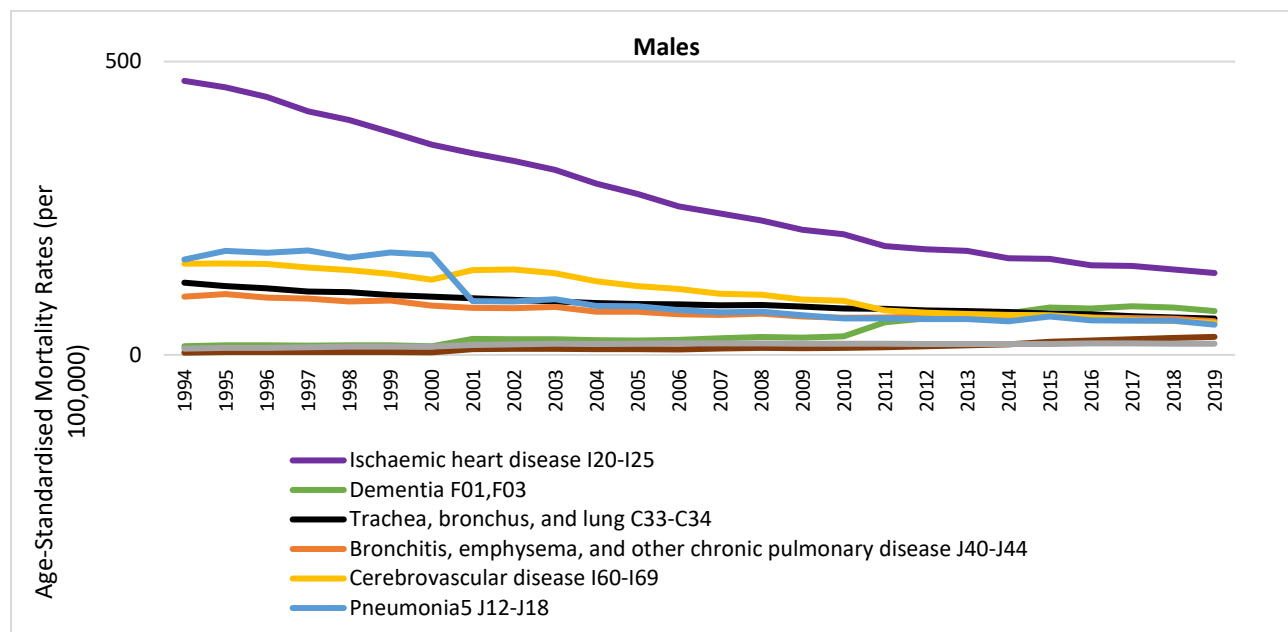
7.4.4 Mortality from the 'major killers'

Recent trends in cardiovascular mortality and deaths from dementia have been identified in the literature as possible drivers of the slowdown in improvements in life expectancy and the adverse mortality rates that occurred in the second decade of the 21st that were discussed in sections 7.1.1 and 7.1.2 above. Analysis by Public Health England suggests that that the decline in improvements in mortality from heart disease was an important contributor to the changing trend in mortality for older adults after 2011 (Public Health England (2018d)). In addition, mortality from dementia is more likely to occur at older ages and partly reflects longer survival into older age.

Figure 56 shows data on trends age-standardised mortality rates by selected leading causes of death.

- The reduction in rates of cardiovascular mortality over the last thirty years stands out as one of the key “good news” stories in health and reflects both medical advances and behavioural changes (especially reduction in population smoking). However, Figure 56 also shows that rates of improvement in the mortality rate from heart disease for men over the period 1994-2019 slowed down during considerably during the second decade of the 21st century (purple line).
- Another notable trend shown in Figure 56 relates to deaths from dementia and Alzheimer’s disease. Rates increased for both men and women (Figure 56, green and brown lines) and by 2019 dementia had become the leading cause of death for women (82.1 per 100,000 population). Note that this increase in the dementia rate may in part reflect greater social recognition of dementia and improving recording practices in the more recent period.

Figure 56 Age standardised death rates: selected leading cause (England and Wales)



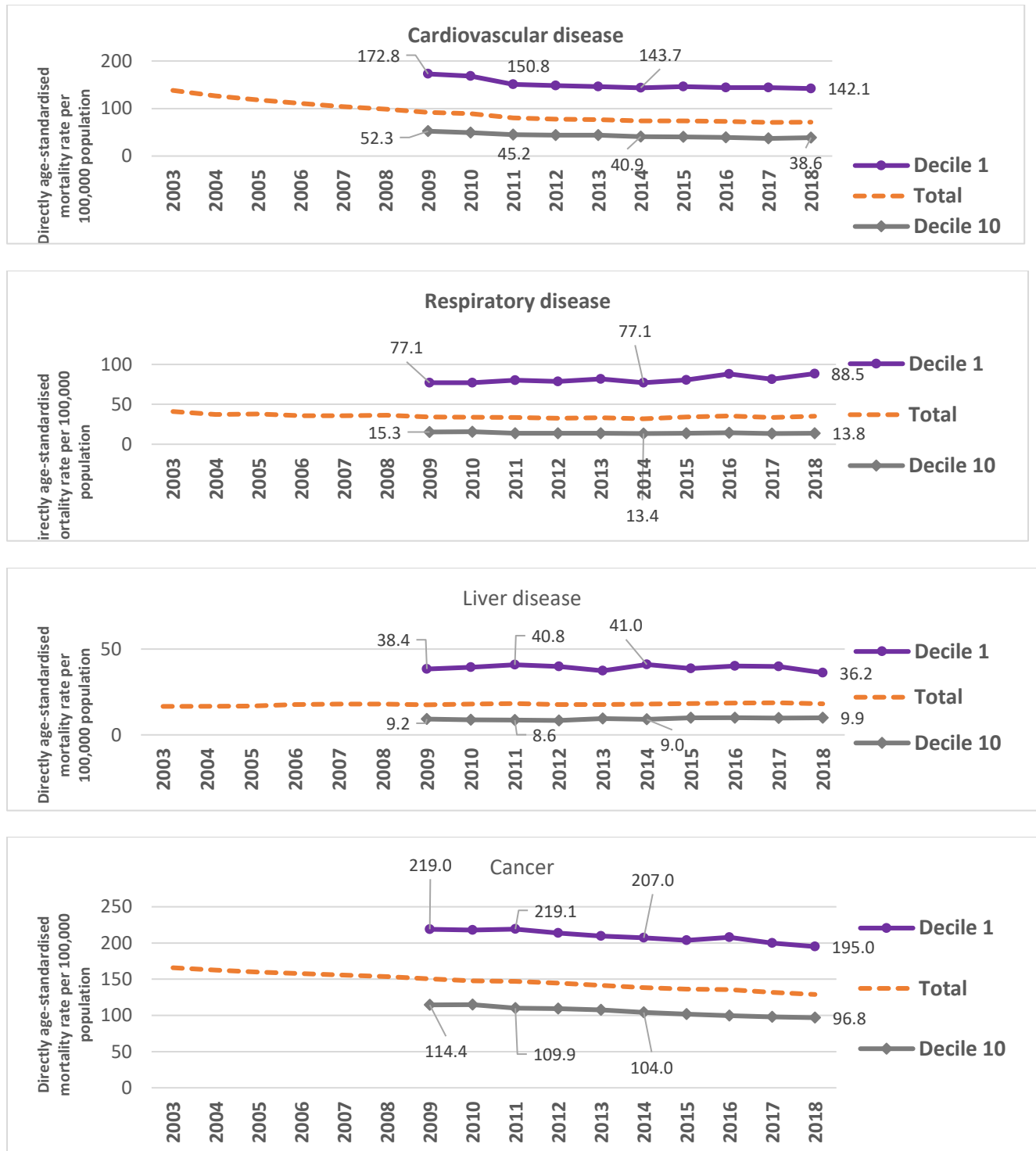
Source: Office for National Statistics (2019b, 2020o). Note: rates are standardised to the 2013 European Standard Population, expressed per 100,000 population.

Inequalities in mortality from the 'major killers' can be assessed using data from the NHS Outcomes Framework, which includes indicators on age-standardised under 75 mortality rates for cardiovascular disease, respiratory disease, liver disease and cancer by area deprivation.

Figure 57 shows progress against each of these indicators covering the period 2009 and 2018 and shows stark disparities between those living in the most and least deprived areas across all four of these indicators on the eve of the pandemic. The figure shows that there was mixed progress in reducing inequalities between the May 2015 General Election and 2018, with a small narrowing of the gaps for cancer and liver disease mortality, but with the gaps for CVD and respiratory mortality *widening*.

- The mortality rate for CVD decreased more in the most deprived decile than in the least deprived decile between 2009 and 2018, resulting in a *narrowing* of inequalities following a fall of 30.7 per 100,000 population for those from the least deprived decile. However, most of this progress was made in the first two years for which data is available (2010 and 2011). Moreover, there was no further progress between 2014 and 2018, with a small increase in the gap over this period.
- The gap in the mortality rate for liver disease narrowed between 2011 and 2018 from 29.2 to 26.3 per 100,000 population.
- There was also some progress in relation to the gap in the mortality rate for cancer, which narrowed somewhat from 107.6 per 100,000 in 2009 to 98.2 per 100,000 in 2018.
- The gap in the mortality rate for respiratory diseases *widened* by 12.9 for every 100,000 population between 2009 and 2018, reflecting an increase in the mortality rate of 11.4 per 100,000 between 2009 and 2018 for those in the most deprived decile. Between 2014 and 2018, gaps in respiratory disease mortality also widened with a notable increase in the most deprived decile. Higher rates of respiratory mortality in deprived areas have been attributed to differential smoking prevalence and differential exposure to air pollution (c.f. Clean air and 7.3.1) (Hawkes, 2019b and Office for National Statistics, 2020r).

Figure 57 Under 75 mortality rates by area deprivation (England)



Source: NHS (2020j)

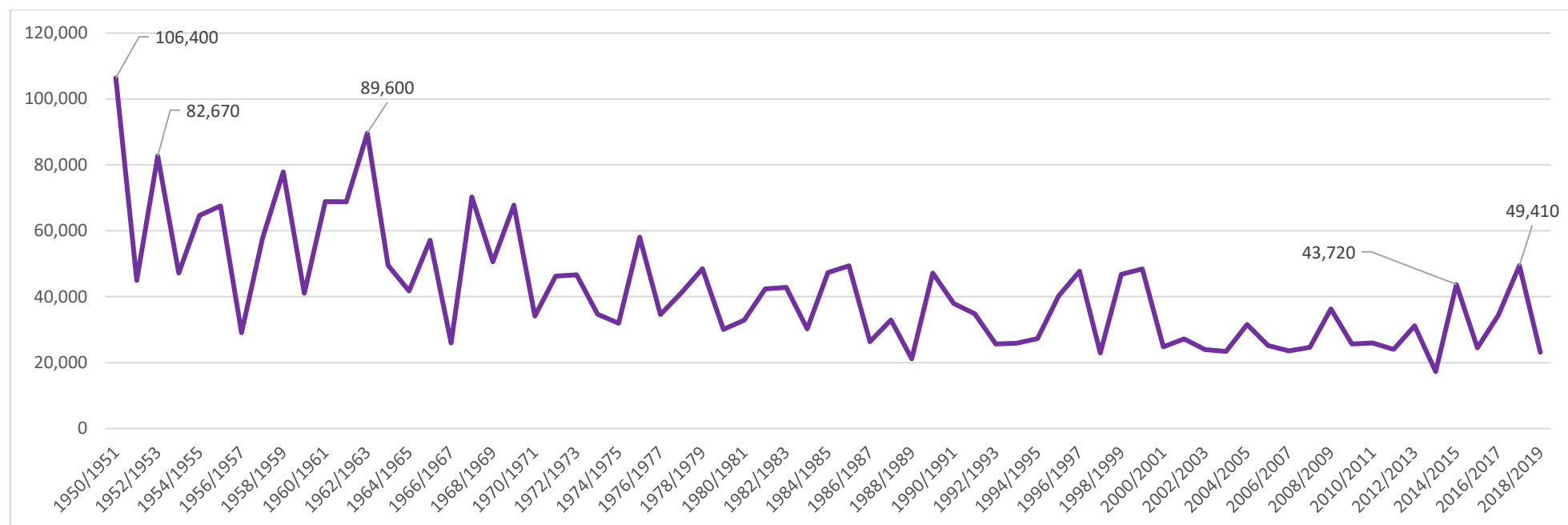
7.4.5 'Excess winter deaths'

ONS define 'excess winter deaths' in England and Wales as the number of winter deaths minus the average number of non-winter deaths in any given year, where winter is defined as December to March. Data from 2018/19 (the last full year prior to the COVID-19 pandemic) going back to 1950/51 is provided in **Figure 58** and shows 43,720 excess winter deaths in 2014/15 and 49,410 in excess winter deaths 2017/18. ONS analysis suggests that excess winter deaths in 2017/18 were highest in females and people aged 85 and over, with the majority of additional winter deaths caused by cerebrovascular diseases, ischaemic heart disease and especially respiratory diseases (ONS, 2018b).

The historical trend going back to the 1950s in **Figure 58** shows that excess winter deaths are not unusual – at the beginning of the series, there were 106,400 deaths in the winter of 1950/51 (when a substantial flu outbreak occurred), 82,670 (the year of an infamous smog), and 89,600 in 1962/63 (one of the coldest winters on record). However, the number of excess winter deaths in England and Wales has been on a downward trend over time, and the period 2001/2-2013/14 is notable for historically low numbers of winter deaths during successive winters, with the upturn in winter 2014/15 representing the highest numbers since 1999/2000, and the 2017/18 figure representing the highest since winter 1975/76.

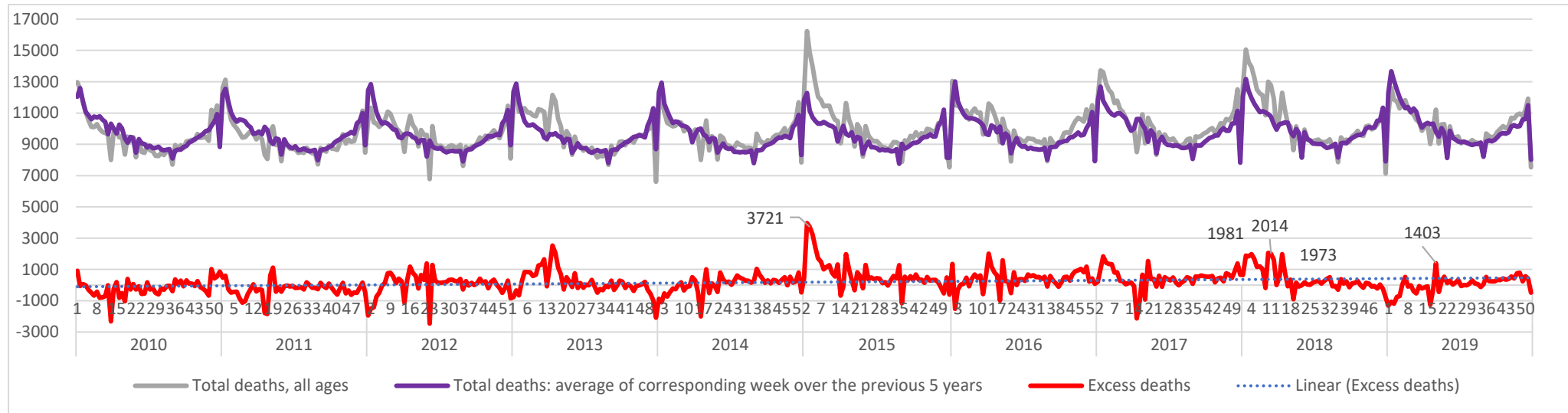
Another series 'excess deaths' series produced by ONS compares the (provisional) number of deaths in any single week to the rolling average in the five preceding years. While limited in important respects, this series, which gained considerable prominence during the COVID-19 pandemic, again indicates high excess deaths in winters 2014/15 and 2017/18 (**Figure 59**).

Figure 58 Number of excess winter deaths (England and Wales, 1950/51-2018/19)



Source: Excess winter mortality in England and Wales (ONS, 2019f) **Notes:**1) Figures are based on deaths occurring in each period (August through to the following July). 2) Numbers of deaths from January to July 2019 are provisional and have been adjusted to take account of late registrations.3) Figures for 2018/19 are provisional. The provisional figures for the latest winter are rounded to the nearest 100, figures for all other winters are final and are rounded to the nearest 10. 4)For the most recent publication, the data from 1991 to 1992 onwards have been revised using the most up-to-date death occurrence data. As a result, figures may not match those previously published.5)Central moving averages were calculated using the winter period of interest, along with the two winter periods before and two periods after.6) Figures for England and Wales combined include deaths of non-residents.

Figure 59 Provisional number of deaths compared to five year rolling average (England and Wales, 2010-2019)



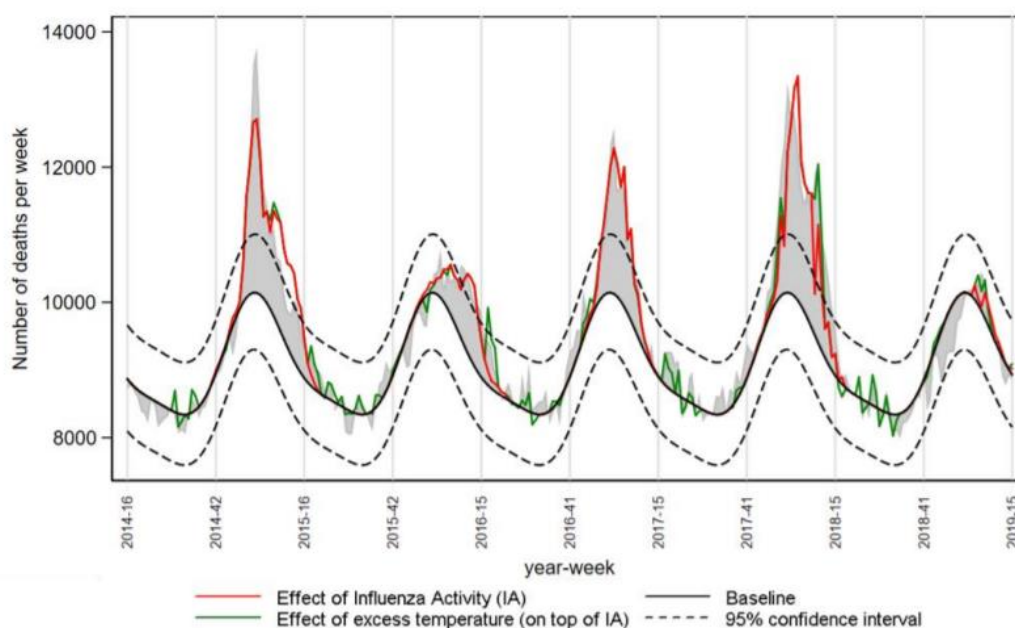
Source: Provisional registered weekly deaths in England and Wales Datasets for 2010 to 2019 (ONS n.d.). **Notes:** the data provide provisional counts of the weekly number of deaths registered in England and Wales for which data are available, based on the General Register Office's Registration Online system. Provisional data on deaths registered in each week (ending on a Friday) are compiled at the end of the following week. Bank Holidays could affect the number of registrations made within those weeks. The average for the previous five years is based on the actual number of death registrations recorded for each corresponding week over the previous five years. Moveable public holidays, when register offices are closed, affect the number of registrations made in the published weeks and in the corresponding weeks in previous years.

The high numbers of excess winter deaths, particularly in the winters of 2014/15 and 2017/18, have been identified as one possible driver of the adverse trends in mortality during the second decade of the 21st century. The high number of excess deaths were the subject of media reports (BBC, 2018) and public health analysis, with some studies suggesting a link with austerity and welfare reform, particularly cuts in social care affecting older people (Green et al., 2017b; Hiam & Dorling, 2018a).

Other studies and reviews identified influenza and unusually cold temperatures as drivers of the excess winter mortality in 2014/15 and 2017/18. For example, (ONS, 2018b) identified flu and the (in)effectiveness of the influenza vaccine, coupled with below-average winter temperatures, as contributory factors in explaining the excess winter mortality of 2017/18. In addition, a modelling exercise reported in Public Health England (Public Health England, 2019g) suggested a close relationship between actual deaths in the winters of 2014/15 and 2017/18 and the number of predicted deaths above baseline attributable to influenza, with extreme weather playing a smaller role. Drawing on this evidence, Public Health England concluded that the size and frequency of recent winter peaks in mortality in recent years, reflecting the intensity and dominant type of influenza circulating, flu vaccine uptake and effectiveness, and which is sometimes exacerbated by cold weather, contributed to the fluctuations in the annual age-standardised mortality rates and the slowdown in improvements.

However, some analyses have questioned the link between the winter 2017/18 deaths spike and both flu and cold weather (Hiam & Dorling, 2018a; Green et al., 2017b). Moreover, a number of analyses have highlighted summer heatwave as well as winter mortality in the recent period, including summer excess heatwave related and pollution related deaths (Public Health England, 2019b; Office for National Statistics, 2019m) (c.f. 4.2.6). Marmot (2020) argued that most of the deterioration in mortality rates since 2011 could not be accounted for by increased seasonal factors, including flu and cold weather. This is because seasonal analysis shows that the improvements in mortality rates slowed down in non-winter months as well as in winter months and because most of the slowdown in improvements was not due to greater winter-associated mortality.

Figure 60 Weekly number of all-age deaths and attribution to influenza (red line) and extreme temperature (green line), England 2014 to 2019 (up to week 15)



Source: Public Health England (2019g, fig. 37) **Notes:** The Figure shows the results of a FluMOMO modelling exercise which aims to estimate the excess number of deaths associated with influenza activity, adjusting for extreme temperature (PHE 2019). The solid black line shows the model based predicted number of deaths based on historical data, and the dashed lines are the upper and lower confidence intervals for those predications. The grey shading is the number of actual all-age deaths above / below the baseline. The red line shows the estimated number of excess deaths attributable due to flu given what know about strain, gp reports etc. The green line is the adjustment to the baseline prediction based on observed temperatures that week.

Figure 61 Influenza and pneumonia deaths 2015-2019

Deaths by underlying cause (England and Wales)				FluMOMO estimates of the number of deaths associated with influenza (England)	
Date	J09-J18 Influenza and Pneumonia	J09-J11 Influenza	J12-J18 Pneumonia		
2015	29,847	282	29,565	2014/15	28,330 (27,462-29,208)
2016	27,464	427	27,037	2015/16	7,371 (6918-7834)

2017	27,595	458	27,137	2016/17	15,047 (14,462- 15,639)
2018	29,451	1,596	27,855	2017/18	22,087 (21,386- 22,794)
2019	26,342	1,213	25,129	2018/19	3,966 (3597- 4347)

Source: Nomis (n.d.). FluMOMO estimates: Public Health England (2019g) and Public Health England (2020b). **Note:** The ONS data records deaths where influenza or pneumonia were included on the death certificate as the underlying cause of death. The FluMOMO data are estimates of the number of deaths associated with influenza observed through the FluMOMO algorithm with confidence intervals in brackets.

7.4.6 Suicide, alcohol and drug related mortality, and mortality among homeless people

Adverse trends in mortality during the second decade of the 21st century were also been impacted by adverse trends in suicide, alcohol and drug mortality, which particularly affected younger and mid-life adults, rather than older adults. In 2019, suicide and injury/poisoning of undetermined intent followed by accidental poisoning was the leading cause of death for 15-19 year olds and 20-34 year olds; and accidental poisoning followed by suicide and injury/poisoning of undetermined intent for 35-49 year olds. ONS analysis highlight that in 2019, the so-called Generation-X, then in their forties and fifties, were most likely to die from suicide and drug poisoning (Office for National Statistics, 2019f, 2019j).

Suicide

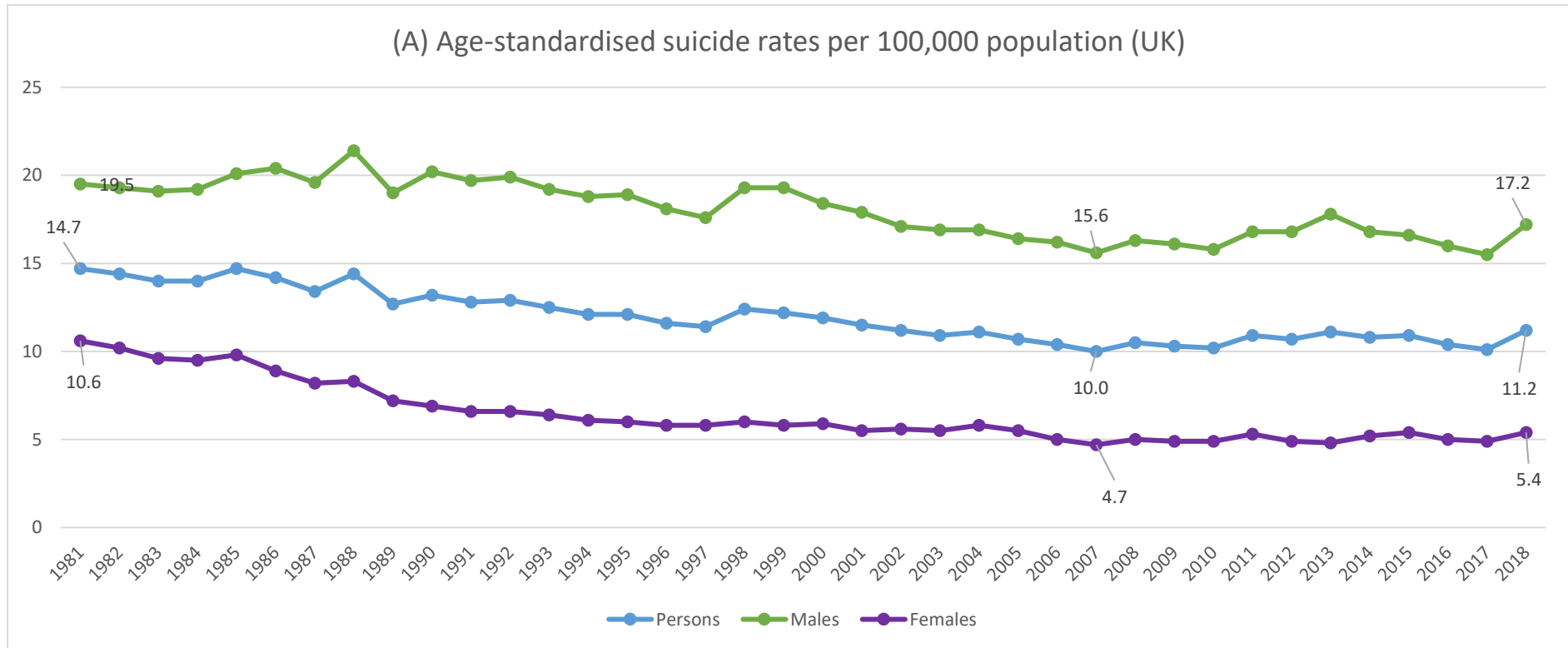
Suicide rates in the UK were generally on a downward trend between the early 1980s and the mid-2000s, falling from 14.7 per 100,000 population to in 1982 to 10.0 in 2007. However, the suicide rate increased in the wake of the 2007/8 financial crisis, recession and onset of austerity (2008-2013) and remained at rates above that recorded in 2007 in the subsequent period. There was a then sharp increase in the UK wide rate 2018 to 11.2 per 100,000. This was driven by an increase in male suicide and rates were generally highest amongst men in middle age (Office for National Statistics, 2019i).

Looking at rates in England and Wales separately, similar trends are observed, with a decline in the suicide rate from 14.1 per 100,000 in 1982 to 9.0 per 100,000 in 2007. Rates then increased in the wake of the financial crisis, recession and onset of austerity and remained above their 2007 low, with increases in this period (to 2017) driven by increases for men. This was followed by a period of flatlining and two year-on-year

declines. However, this was a sharp year-on year increase in 2018 and a further increase in 2019. As a result, rates had increased back up to 11.0 per 100,000 prior to the pandemic – a rate last observed in 1998 (Office for National Statistics, 2020g).

By region, rates were highest in Yorkshire in the Humber, the South West and the North East in 2019. Analysis by IMD for England in 2015 shows a substantial social gradient, with rates varying from 7.1 per 100,000 population (least deprived decile) to 14.3 per 100,000 population (most deprived decile) for data covering 2006 to 2015 (Office for National Statistics, 2020g, 2017).

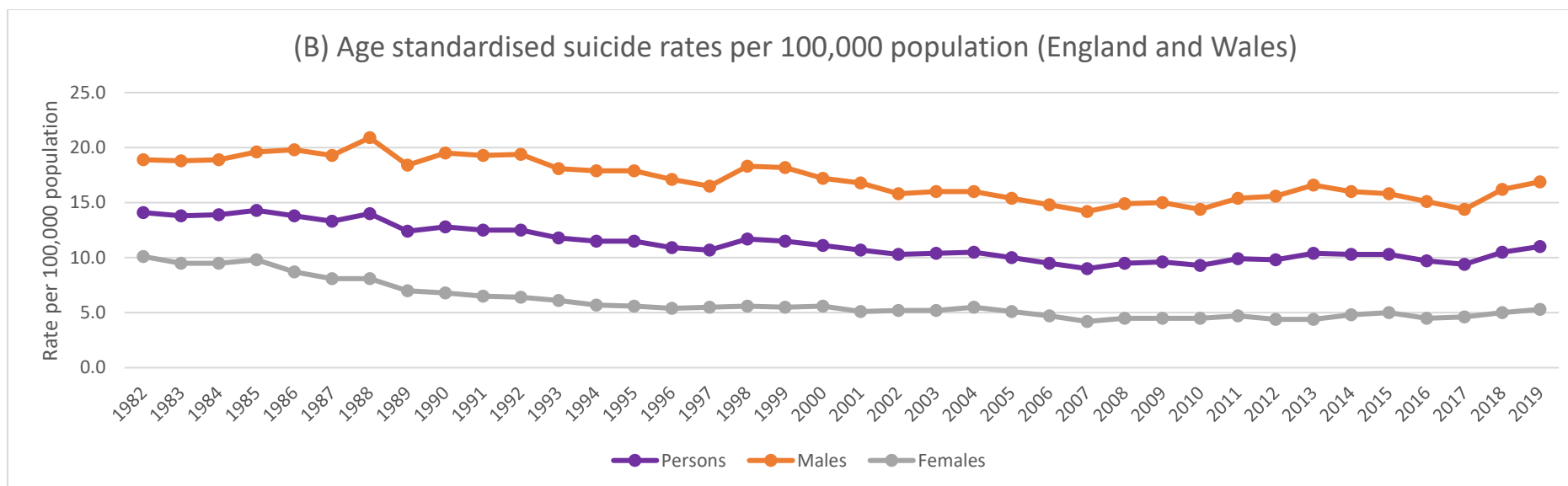
Figure 62 Suicide rate per 100,000 population



Source: ONS (2019m)

Notes

1. The National Statistics definition of suicide is given in [Section 3, Things you need to know about this release](<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/suicidesintheunitedkingdom/2018registrations#things-you-need-to-know-about-this-release>).
2. Figures are for persons aged 10 years and over.
3. Age-standardised suicide rates per 100,000 population, standardised to the European Standard Population 2013. Age-standardised rates are used to allow comparison between populations that may contain different proportions of people of different ages.
4. Figures include deaths of non-residents.
5. Figures are for deaths registered, rather than for deaths occurring in each calendar year. Owing to the length of time it takes to complete a coroner's inquest, it can take months or even years for a suicide to be registered. More details can be found in [Section 9, Registration delays have increased in England and Wales since the previous year](<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/suicidesintheunitedkingdom/2018registrations#registration-delays-have-increased-in-england-and-wales-since-the-previous-year>).



1. The National Statistics definition of suicide is given in [Section 9: Glossary] (<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/suicidesintheunitedkingdom/2019registrations#glossary>).
 2. Figures are for persons aged 10 years and over.
 3. Age-standardised suicide rates per 100,000 population, standardised to the 2013 European Standard Population. Age-standardised rates are used to allow comparison between populations which may contain different proportions of people of different ages.
 4. Figures include deaths of non-residents, based on postcode boundaries as of May 2020.
 5. Figures are for deaths registered, rather than deaths occurring in each calendar year. Because of the length of time it takes to complete a coroner's inquest, it can take months or even years for a suicide to be registered. More details can be found in [Section 7: Registration delays]
- Source: ONS (2020g)

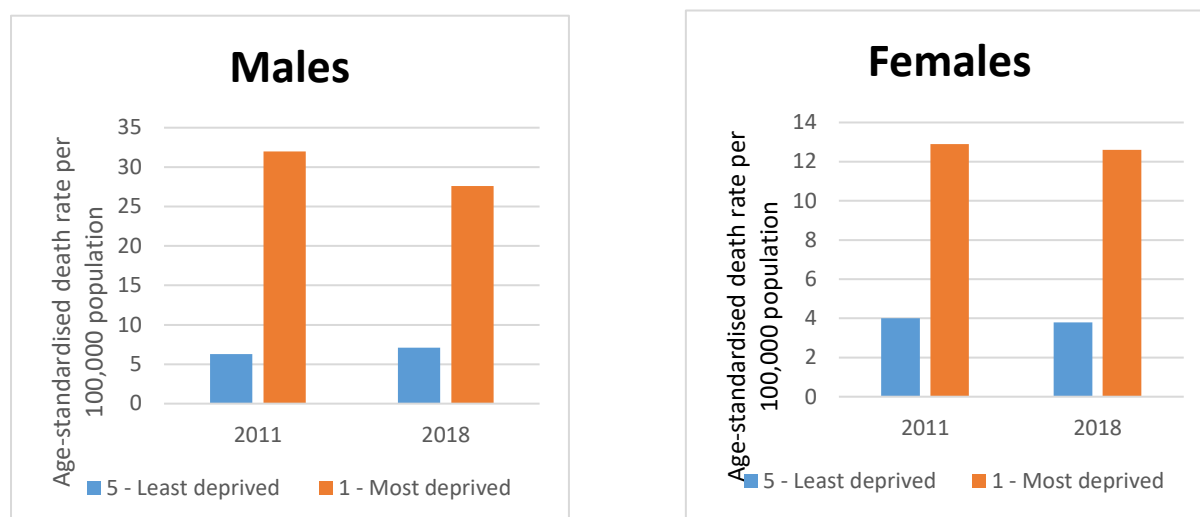
Alcohol related mortality

A new ONS definition of alcohol-specific deaths relates to deaths which are directly caused by alcohol-misuse such as alcoholic liver disease (and excluding deaths which are only partially attributable to alcohol, such as liver cancer). Based on this definition, there were 7565 alcohol-specific deaths in the UK in 2019, the second highest since the series began in 2001. The age standardised alcohol specific death rate was 11.4 per 100,000 people in 2014 and remained broadly constant at 11.8 in 2019. Looking at the second decade of the 21st century, there was no further progress in reducing this rate after 2012, following a period of progress between 2007 and 2012. The majority of alcohol specific deaths can be attributed to alcoholic liver disease (see Office for National Statistics, 2021a).

Looking at the period since 2001, Scotland stands out from the other three constituent countries of the UK as having both a relatively high rate of alcohol-specific deaths but also in recording a decline since 2001. In contrast, rates in the other constituent countries of the UK remained broadly constant (England and Wales) or increased (Northern Ireland) over this twenty year period (Figure 104 – online appendix). As noted in section 4.2.2, Scotland became the first UK country to adopt minimum unit pricing for alcohol in 2018. However, despite the decline in rates of alcohol-specific deaths in Scotland during the 21st century, rates remain substantially higher than in the other UK constituent countries in 2019. Moreover, rates were at their lowest point in 2012 after a sustained period of decline, with annual increases between 2012 and 2016, and rates returning broadly to their 2012 levels in 2019.

Cirrhosis and other diseases of liver have become a leading cause of death amongst 20-34 year olds and 50-64 year olds and were *the* leading cause amongst 35-49 year olds in 2018 (ONS, 2019e). There is a substantial social gradient for both males and females, with 27.6 alcohol-specific deaths per 100,000 population amongst men in the most deprived UK quintile in 2018, compared to 7.1 in the least deprived (Figure 63).

Figure 63 Alcohol-specific deaths by deprivation quintile (UK)



Source: Alcohol-specific deaths in the UK: liver diseases and the impact of deprivation (ONS, 2019a)

Notes:

1. Age-standardised mortality rates are presented per 100,000 people and standardised to the 2013 European Standard Population. Age-standardised mortality rates allow for differences in the age structure of populations and therefore allow valid comparisons to be made between geographical areas, the sexes and over time.
2. The lower and upper 95% confidence limits have been provided. These form a confidence interval, which is a measure of the statistical precision of an estimate and shows the range of uncertainty around the estimated figure. Calculations based on small numbers of events are often subject to random fluctuations. As a general rule, if the confidence interval around one figure overlaps with the interval around another, we cannot say with certainty that there is more than a chance difference between the two figures.
3. Cause of death was defined using the International Classification of Diseases, Tenth Revision (ICD-10) from 2001 onwards in England. The underlying cause of death codes used to select alcohol-specific deaths are shown in Box 1 on the Definition page.
4. Figures for England exclude deaths of non-residents and are based on August 2019 boundaries.
5. Figures are based on the date of registration, as opposed to the date the death occurred, in each calendar year. For alcohol-specific deaths registered in 2018, the average (median) time between death occurrence and registration was six days in England, five days in Wales and four days in Scotland. More details can be found in the 'Alcohol-specific deaths in the UK' statistical bulletin.
6. Index of Multiple Deprivation (IMD) is the official measure of relative deprivation for small areas in England. It is designed to identify those small areas where there are the highest concentrations of several different types of deprivation. IMD Quintile range from 1 to 5, with 1 being the most deprived and 5 being the least deprived. The IMD classification works by grouping together Lower Super Output Areas (LSOAs) based on their level of deprivation. LSOA's based on the 2011 census boundaries, based on postcode boundaries as of August 2019. For more information on IMD, and the latest version of the classification system, please follow this link: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>.
7. One caveat with the data reported here is that the deaths for all years are based on the 2015 version of the IMD classification system. This classification system may not encapsulate levels of deprivation for the years prior to 2015.
8. For other data on deprivation, for local authority areas Public Health England (PHE) report alcohol-specific rates by deprivation that take into account the levels of deprivation in each local authority: <https://fingertips.phe.org.uk/profile/local-alcohol-profiles>.

Drug poisoning mortality

ONS data on drug poisoning deaths covers a broad spectrum of substances, including controlled and non-controlled drugs, prescription medicines (either prescribed to the individual or obtained by other means) and over-the-counter medications. Based on this definition, deaths from drug poisoning in England and Wales have been increasing, particularly since 2012, with 4,393 deaths in 2019. This is a similar number to that recorded in 2018, with the 2018 figure representing the highest number and the largest annual increase (16%) since records began. The rate of drug poisoning death registrations is substantially higher for males than females and the North East has a significantly higher rate of deaths relating to drug misuse than all other English regions. ONS analysis also shows rates of drug poisoning deaths are higher in the most deprived areas of England and Wales compared with the least deprived areas. The social gradient is particularly marked for those in their forties, with rates more than five times higher in the most deprived areas (Office for National Statistics, 2019l, 2020b).

OECD data shows that in some countries the opioid crisis has caused more working-age adults to die from drug-related accidental poisoning. While rates of prescription of analgesic opioids in the UK has been increasing over the last fifteen years, and the UK has experienced a relatively large increase in opioid deaths in the recent period, deaths from opioids in England and Wales in 2016 remained substantially lower than in the US and Canada, and the health system incentives relating to marketing and over-prescription of prescription opioids are entirely different (OECD, 2019d Figures 3.4 and 3.1). Nevertheless, OECD concludes that “[o]ver-prescription of pain killers by doctors has contributed to a growing problematic opioid use in parts of the OECD with a surge in overdose deaths in the United States, Canada, Sweden, Norway, Ireland and parts of the United Kingdom pointing to a mounting health and social crisis fuelled by the illicit drugs trade”. Recent analyses further suggests that rates of prescription opioids are higher in deprived areas of England than in less deprived areas (Chen et al., 2019), although there is currently a lack of evidence on whether this remains the case once higher rates of injury and pain in deprived areas are accounted for⁴³.

⁴³The focus of the Case and Deaton analysis is on non-Hispanic Whites. Marmot 2020 cites Woolf et al (2018): this shows mortality increases among other ethnic groups including American Indians, Alaskan Natives and African Americans.

Mortality amongst homeless people

ONS experimental statistics on mortality amongst homeless people cover rough sleepers or people using emergency accommodation such as homeless shelters and direct access hostels, at or around the time of death. Based on these statistics, there were an estimated 778 deaths of homeless people in England and Wales were registered in 2019. This was the highest estimated number since the time series began in 2013. Deaths amongst homeless people were concentrated in London and the North West, and the proportion of deaths of homeless people relating to drug poisoning increased after 2017 and accounted for two in five deaths in 2019 (Office for National Statistics, 2020a).

7.4.7 Infant and maternal mortality

Overall trends in infant mortality

The infant mortality rate (IMR) is the number of deaths of children less than one year of age per 1,000 live births. Data for England and Wales is reported in Child and Infant Mortality Data 2019 and is based on the time of the occurrence of infant deaths (rather than the date of registrations)⁴⁴. This data shows that following a period of sustained improvement progress in reducing the infant mortality rate in England and Wales, progress in reducing the infant mortality rate had stalled prior to the pandemic, and there was no further progress in reducing infant mortality inequalities during the second decade of the 21st century.

The historic series shows a long period of improvement from the 1980s onwards, with a period of sustained year on year improvements between 2006 and 2014, and the infant mortality rate falling to a historic low of 3.6 deaths per 1,000 live births in 2014. However, during the subsequent period, progress in reducing the infant mortality rate stalled, with three consecutive annual year on year *increases*, bringing the infant mortality rate back up to 3.9 per 1,000 live births in 2017. While there were subsequently two annual declines to 3.8 in 2018 and 3.7 in 2019, the rate in 2019 remained above the 2014 historical low (online appendix Figure 94 and ONS (2021d)).

⁴⁴ONS recommends that trends in the infant mortality rate are assessed based on *occurrences* rather than *registrations* where this data is available (Office for National Statistics, 2020j) and (Baker, 2020).

Data for the UK is published in ONS Vital Statistics and is based on death registrations rather than occurrences. The UK infant mortality rate remained unchanged at 3.9 deaths per 1,000 live births between 2013 and 2018 and increased to 4.0 deaths per 1,000 live births in 2019. While the rate recorded between 2013 and 2018 figure was the lowest rate on record, this five year period of stagnation was highly unusual, and followed a trend of sustained improvement between 2000 and 2013 ((ONS, 2021c) and Figure 95).

Data for England and Wales indicates that over the period in which the infant mortality rate was rising, the stillbirth rate for England and Wales declined, while the neonatal mortality rate increased (Figure 94). Moreover, separate ONS analysis of neonatal mortality in for babies born at 24 weeks or over in England and Wales shows that the neonatal mortality rate *decreased* from 1.7 deaths per 1,000 live births in 2015 to 1.4 deaths per 1,000 live births in 2019 for babies born at 24 weeks or over, implying that the observed increase in the neonatal death rate since 2015 could be partly attributed to an increase in the neonatal mortality rate for babies born live at less than 24 weeks gestation. ONS analysis concludes that “a continued increase in babies born under 24 weeks in 2019 has continued to affect the overall neonatal and infant mortality rates” (ONS, 2021d).

UK Vital Statistics data shows similar differential trends for the UK as a whole, with the stillbirth rate falling, and the neonatal mortality rate increasing, during the period that UK infant mortality rate stagnated (Figure 95).

Inequalities in infant mortality by socioeconomic disadvantage

There were substantial inequalities in the infant mortality rate by socio-economic disadvantage in 2019, the last full year of data before the COVID-19 pandemic struck. Moreover, there had been virtually no further progress in reducing inequalities in the infant mortality rate by socioeconomic disadvantage during the second decade of the 21st century.

- Looking at ONS data on infant mortality in England and Wales with breakdowns by socioeconomic group (parental NS-SEC class – three group classification system) (Figure 109 – Appendix):
 - For the routine and manual occupational groups, the infant mortality rate declined from 4.8 deaths per 1000 live births in 2011 to a low of 4.3 in 2014. The rate then increased again to

4.8 deaths per 1000 live births in 2016 before falling back somewhat to 4.6 in 2019.

- For the higher managerial, administrative and professional occupational groups, the rate declined from 3.1 deaths per 1000 live births in 2011 to 2.6 in 2015, before increasing to 2.9 deaths per 1000 live births in 2017 and remaining unchanged until 2019.
 - As a result of these trends, inequalities in the infant mortality rate between the routine and manual occupational groups on the one hand, and the higher managerial, administrative and professional occupational groups on the other, remained unchanged between 2011 and 2019. In 2011, the gap in the infant mortality rate between the routine and manual occupations and the higher managerial, administrative and professional occupations was 1.7 deaths per 1000 live births. A similar gap of 1.7 deaths per 1000 live births was also recorded in 2019.
- Looking at ONS data on infant mortality by English small area deprivation (IMD) (**Figure 110**– Appendix):
 - The infant mortality rate for the most deprived decile was 5.9 deaths per 1000 live births in 2010. The rate then declined to 5.3 in 2013 before rising to 5.8 in 2015, and then subsequently falling back a little to 5.4 deaths per 1000 live births in 2019.
 - The infant mortality rate for the least deprived decile was 2.4 deaths per 1000 live births in 2010. The rate increased to 3.0 in 2013 before falling back to again 2.4 in 2019.
 - The absolute gap in the infant mortality rate between the most and least deprived areas was 3.5 deaths per 1000 live births in 2010. The gap narrowed somewhat to 3.0 in 2014. A similar gap of 3.0 was recorded in 2019 (Figure 110 – Appendix).

Inequalities in infant mortality by geographical area

In 2019, the last year of data prior to the COVID-19 pandemic, there was substantial variation in the infant mortality rate between the constituent countries of the UK. Rates of 4.0 per 1000 live births was recorded in

England and Wales respectively, compared to a rate of 3.3 per 1000 live births in Scotland and 5.0 per 1000 live births in Northern Ireland in 2019.

Adverse trends during the second decade of the 21st century are evident within all four countries of the UK. With periods of stagnation and / or increasing infant mortality rates after 2012. This data shows year on year *increases* in England in 2017 and 2019; in Wales in 2017, 2018 and 2019; in and Northern Ireland between 2012 and 2014 and in 2018 and 2019; and in Scotland in 2014, 2016 and 2019 (ONS, 2019);(ONS, 2021c) Figure 96 – online appendix)⁴⁵.

Looking at inequalities in the infant mortality rate by English region, rates in 2019 were notably high in the West Midlands (at 5.3 deaths per 1,000 live births). The lowest rate by English region was recorded in the South West (at 2.6 deaths per 1,000 live births) (ONS, 2021d).

Inequalities in infant mortality by ethnicity and country of birth

The infant mortality rate also varies according to ethnicity and mother's country of birth. ONS data shows that prior to the pandemic there were substantial inequalities in the infant mortality rate by ethnicity. In 2018 in England and Wales, the highest infant mortality rates were experienced by those from the Asian/Asian British Pakistani (6.1) and Asian/Asian British Bangladeshi (5.1) ethnic groups, and the Black/Black British African (6.4) and Black/Black British Caribbean (6.5) ethnic group, while the lowest rates were experienced by those from the White Other (2.7) and White British (3.2) ethnic groups (Figure 111 - Appendix). (Kroll et al., 2019) examined variations in infant mortality amongst preterm babies (24-36 weeks gestation) by ethnic group and socioeconomic disadvantage. This study found that patterns of ethnic variation differ by gestational age at birth, but that among moderate/late preterm babies, minority groups (Pakistani, Bangladeshi, Black African and Indian) had higher risk of death from congenital anomalies than White British. Looking at breakdowns by mother's country of birth for England and Wales, the highest rates in 2018 were recorded for mothers born in the Caribbean (9.3), Western Africa (6.9), Central Africa (5.2) and Pakistan (6.6) (Table 40 – Appendix).

⁴⁵ This data suggests stagnation in the combined English and Welsh data in every year between 2013 and 2017, with a decline in 2018. See ONS, 2019i

Maternal mortality and disparities in neonatal deaths and stillbirths

Evidence from the 2015-2017 Confidential Inquiry into Maternal Mortality linked maternal deaths to both deprivation and ethnicity. The Inquiry identified that in 2015-17 there remained a five-fold difference in maternal mortality rates amongst women from Black ethnic backgrounds compared to White women (relative risk = 5.27), a three-fold difference for women from Mixed ethnic backgrounds compared to White women (relative risk = 3.12) and an almost two-fold difference amongst women from Asian ethnic backgrounds compared to White women (relative risk = 1.77), compared to white women (Knight et al., 2019). As noted above, the Inquiry highlighted concerns about health charging and immigration status in the context of its inquiries into three maternal deaths (Knight et al., 2019; Joint Committee on Human Rights, 2020).

The Health and Social Care Committee published a report on the safety of maternal care in summer 2021. This highlighted variations in safe maternity care and made recommendations relating to three key issues: supporting maternity services and staff to deliver safe maternity care; learning from patient safety incidents; providing safe and personalised care for all mothers and babies. Key recommendations related to addressing workforce shortages and the need for additional funding to fund this (Health and Social Care & Committee, 2021).

Progress against the government's safer maternity commitments (discussed in section 4.1.3) was also reviewed by an expert panel (Health and Social Care Committee Expert Panel, 2021). This concluded that while there had been significant progress towards achieving targets relating to stillbirths and neonatal deaths, there had been little to no progress on reducing rates of brain injury, pre-term births or maternal deaths. The finding on neonatal deaths related to babies born at 24 weeks gestation or above, and the panel recommended that efforts be made to address mortality amongst extremely premature babies. In addition, substantial health inequalities for women from minority ethnic and socio-economically disadvantaged backgrounds were found to have persisted. Women and babies from minority ethnic and socio-economically deprived backgrounds were identified as remaining at greater risk of stillbirth, neonatal death and maternal death when compared to their white or less deprived peers. In relation to ethnic group, data identified in this assessment indicates relatively high risk of neonatal death amongst the Black/Black British group followed by the Asian/Asian British group and relatively high risk of stillbirth and maternal mortality amongst the Black group. In relation to socioeconomic disadvantage (area deprivation by quintile), data in this

assessment identifies relatively high rates of neonatal death and stillbirth amongst the fifth quintile (most deprived) and relatively high rates of maternal mortality amongst the fourth and fifth quintiles compared to the least deprived reference group. The panel concluded that there had been a lack of funding and focus on reducing these disparities since the announcement of the National Safer Maternity Ambition in 2015.

7.4.8 International comparisons

While the UK performs well internationally in terms of universal and equitable access to healthcare, international comparisons indicate that the UK performs poorly in relation to some key mortality outcomes. The international data in online Appendix Table 45 requires careful interpretation due to issues in data recording, consistency and comparability. Nevertheless, in broad terms the data shows that the UK lags behind some key comparable countries in relation to life expectancy, infant mortality, avoidable mortality, 30-day survival rates for AMI and stroke, 5-year cancer survival rates, and mortality due to cancer, respiratory disease and digestive disease. Moreover, this data indicates that the UK's ranking in international league tables for some key mortality outcomes indicators such as female life expectancy and infant mortality was failing to improve in the years running up to the pandemic with signs of deterioration in some instances.

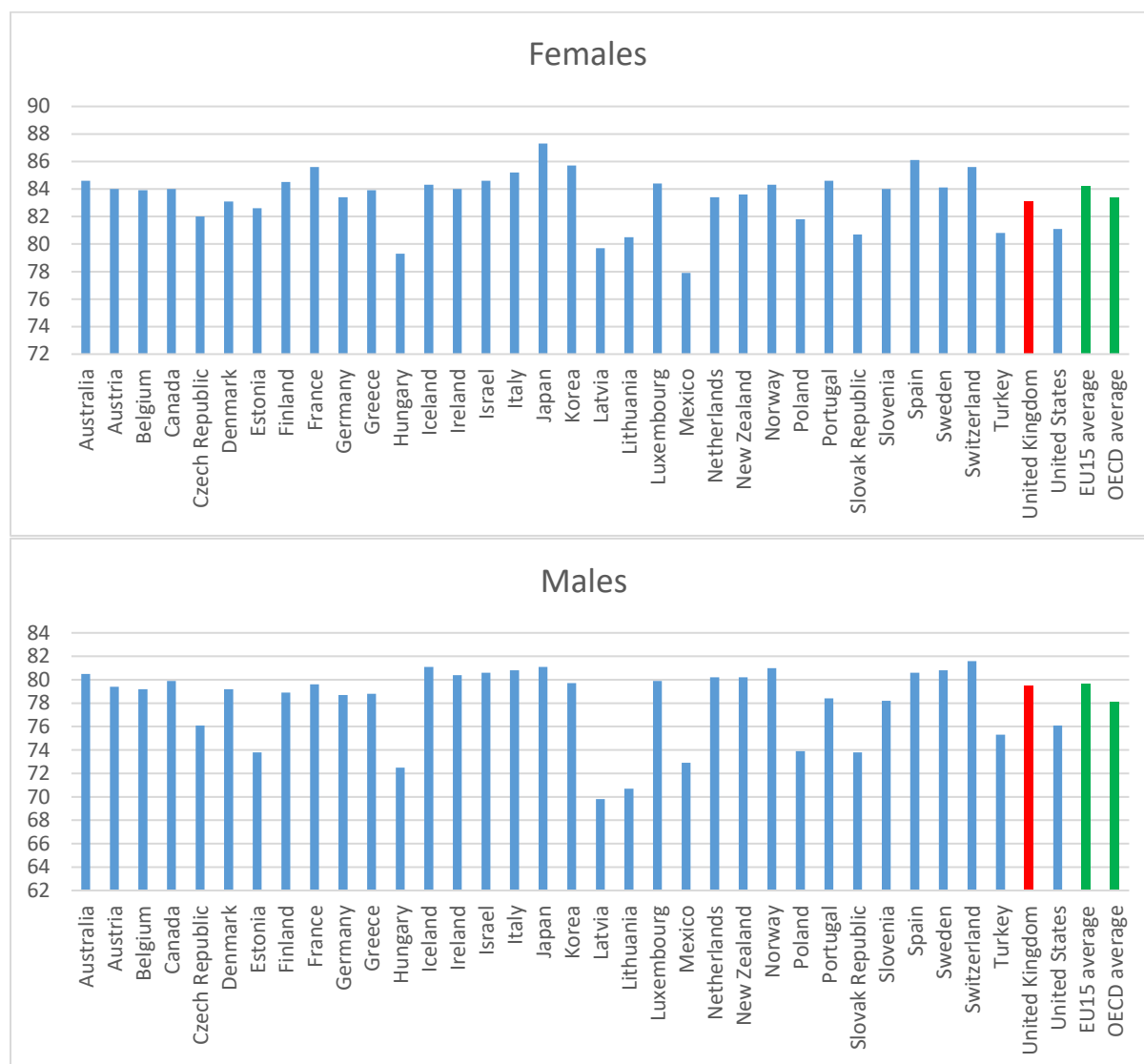
Life expectancy at birth

The UK's position on international life expectancy at birth rankings lags behind the rates achieved in some key comparator countries, especially for females (OECD, 2020b). For females, the UK has consistently ranked mid-low when compared to OECD countries. In 1997, the UK ranked 20 out of 35 countries with available data. By 2017, the UK's ranking had slipped to 24 out of 36 countries, with female life expectancy at birth above that recorded in the US, but below the EU15 average and lagging behind rates in Spain, Italy and France (**Figure 64**). On the eve of the pandemic, in 2019, the UK's ranking for female life expectancy at birth on OECD international female life expectancy at birth tables was 26th (OECD 2023).

The UK's ranking for male life expectancy is somewhat more positive than that for females. In 1997, the UK was ranked 14 out of 35 countries with available data, and the UK was ranked in positions 12-15 out of 35-36 countries up until 2014. Between 2014 to 2017, the UK's ranking deteriorated, with the UK ranked 17 out of 35 countries in 2017, above the

United States and Germany and with rates similar to the EU15 average, but below the rates recorded in Sweden, Spain, the Netherlands, Luxembourg, Italy and Ireland (Figure 64). On the eve of the pandemic, in 2019, the UK was ranked 17th on OECD international male life expectancy at birth tables (OECD 2023).

Figure 64 Life expectancy at birth in OECD countries (2017)



ONS (2018a) undertook analysis of average improvements in life expectancy in the UK and 19 other OECD countries between 2006-2011 and 2011-2016. Between these two periods, the UK experienced the greatest slowdown in average life expectancy improvement for females and

the second greatest slowdown for males. The USA experienced the greatest slowdown for men and additional evidence reports decreases in life expectancy for both males and females between 2014 and 2017 (Centre for Disease Control and Prevention, 2018)). Between 2011 and 2016, the UK experienced the lowest annual increase in life expectancy for females (1.2 weeks per year) and the second lowest for males (4.2 weeks per year). The results of the ONS (2018a) analysis are reproduced in online appendix Figure 122).

ONS (2020) undertook further analysis of average improvements in life expectancy in constituent countries of the UK compared to selected other OECD countries between 2011 and 2017. This shows that England, Scotland and Wales recorded lower life expectancy improvements over this period when compared with multiple other comparator countries (Figure 122).

Mortality from the 'major killers'

Additional caveats in relation to international comparisons are necessary in relation to death by cause, as the recording practices relating to cause of death can be variable. Acknowledging these possible limitations, Looking across the available indicators in OECD international mortality tables, the UK's international position in relation to mortality rates for the major killers is mixed. The UK performs well in relation to diseases of the circulatory system. Online appendix Table 45 shows that the UK ranked in the top 6 of EU 28 EU countries in all years analysed between 2000 and in 2016. However, in relation to malignant neoplasms (cancer) and diseases of the digestive system, the UK consistently ranked below many comparable countries and below the EU average. In relation to diseases of the respiratory system, the UK ranked last among EU countries for 3 of 5 years analysed since 2000, including in 2016. Saliccioli et al. (2018) analysed respiratory disease mortality rates in the UK and other EU15+ countries between 1985 and 2015 and found that while respiratory disease mortality rates declined in the UK and other EU15+ countries over the study period, there remained a persistent mortality gap between the UK and EU15+ countries. On the eve of the pandemic, in 2019, the UK had the second highest standardised rates of respiratory diseases mortality in OECD database tables, second only to Colombia (OECD 2023).

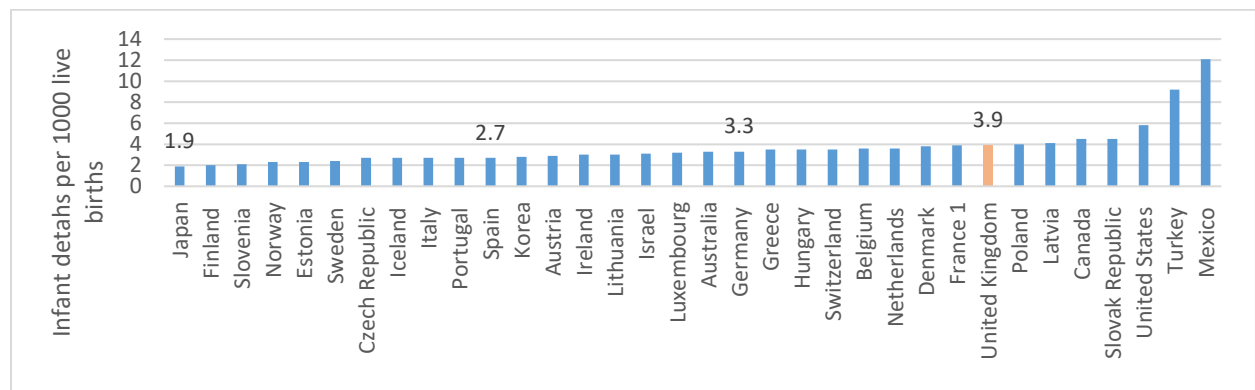
Infant mortality

In 2017, the UK ranked equal 26th out of 34 OECD countries for infant mortality (Figure 65). This was equal position with France and above the United States, but above the rates in many other comparator countries.

Online appendix Table 45 shows that UK’s ranking on infant mortality in comparison to OECD countries between 2017 and 2000 was the worst recorded during this period with the UK ranked 26th with a lower infant mortality rate than the United States and a similar infant mortality rate to that recorded in France, but below the group of best performers and with a higher recorded rate than in Italy, Spain or Germany (OECD 2023).

The discussion in 7.4.7 highlighted the important of assessing gestation-week-specific infant mortality rates and OECD comparative tables include an infant mortality rate indicator with a minimum threshold of 22 weeks (or 500 grams birthweight). The most recent available for the UK for this indicator was 2015, when the UK was ranked 14th of 27 countries, above the US and France, Netherlands and Switzerland, but below the best performing countries (OECD 2023).

Figure 65 Infant mortality in 34 OECD countries, 2017



Source: (OECD, 2019b) Notes: 1. Provisional data

7.5 Did austerity cause a deterioration in health and mortality outcomes during the second decade of the 21st century?

On the eve of the COVID-19 pandemic, there were ongoing discussions, debates and disagreements in the literature regarding the role of austerity in explaining the adverse trends in mortality indicators and the widening of life expectancy inequalities that occurred during the second decade of the 21st century (c.f. section 7.4) as well as in explaining adverse health outcomes such as rising obesity inequalities (c.f. section 7.3.3) and mental ill-health (c.f. section 7.2.3). A growing body of studies highlighted the slowdown in the growth in public expenditure on health as well as the erosion of broader aspects of social support and protection including in

relation to adult social care services; welfare reform, benefit conditionality and the erosion of social security support; and limited investment in or cuts in public services such as community mental health services, children's services and drug and alcohol rehabilitation services. As well as addressing the direct relationship between public expenditure trends and mortality outcomes, some studies highlighted the importance of adverse trends in broader social determinants and drivers such as rising child poverty, food insecurity and diet, social security conditionality, insecure employment and poor quality housing conditions and homelessness.

7.5.1 Initial studies linking adverse mortality trends to austerity

Prior to the pandemic, a small but discrete and growing body of research outputs attributed the deteriorating mortality trends during the second decade of the 21st century reported in section 7.4, including the stalling of life expectancy improvements and the high excess deaths observed in the winters of 2014/15 and 2017/18, to austerity-related factors. An initial set of studies focused on the deterioration in mortality amongst older adults, especially older deprived women, and linked these to slower rates of increase in health and care expenditure. For example, Loopstra et al (2016) identified a link between the deteriorating trend in mortality in pensions aged 85 and above and declines in social protection (specifically pension credit) and social care between 2007 and 2013 (Loopstra et al., 2016). Green et al (2017a) argued that around a fifth of the increase mortality rates between 2014 and 2015 could be explained by increases in the number of delayed discharges amongst acute patients. This evidence was presented as an association rather than a cause, with delayed discharges viewed as reflecting a poorly functioning health and care system and constraints on health and social care funding.

Watkins et al (2017) reported that an increase in mortality between 2010 and 2014 could be explained by constraints on health and social care spending. This study estimated that spending constraints in health and social care between 2010 and 2014 were associated with an estimated 45368 (95% CI 34530 to 56206) higher than expected deaths compared with pre-2010 trends. The study was widely cited in the media as linking cuts in health and care expenditure with additional deaths, with over 60s and care home residents most affected, and with numbers of hospital and community nurses identified as critical drivers of the deterioration in mortality trends. Hiam and Dorling (2018b) argued that high mortality in England and Wales during the first seven weeks of 2018 could be attributed to the effects of expenditure cuts on older vulnerable women. Hiam et al (2018) concluded that the observed trends could not be dismissed as a

temporary aberration and that there was growing evidence that austerity policies provided at least a partial explanation.

A report by the IPPR (Hochlaf et al., 2019) highlighted a potential link between a slowdown in preventable mortality that coincided with the onset of austerity. Between 1990 and 2012 the number of disability-adjusted life years (DALYs) where a preventable risk factor was an underlying cause fell from 7.7 million to 5.6 million. However, after a long period of decline there was a change in trend and by 2017 this had risen to 5.9 million. The authors noted that a similar trend was observed for deaths attributable to a preventable risk factor and that had the trends observed between 1990 and 2012 continued, 130,000 deaths could have been averted between 2012 and 2017.

7.5.2 Critique and alternative explanations

However, during the years running up to the pandemic, the proposition that the observed adverse trends in life expectancy, standardised mortality and winter mortality reported in section 7.5.1 were caused by austerity was challenged in a series of specific responses to the outputs highlighted above while alternative possible explanations were put forward in a series of follow up reviews and studies. In a series of responses to the initial studies linking adverse mortality trends to austerity discussed above, Steventon (2017), Fordham et al (2017) and Milne (2017)) suggested that several of the analyses cited above confused correlation with causation; and that observed phenomena (i.e. the adverse trends in mortality and life expectancy being observed) were consistent with a range of other causal explanations.

Alternative explanations put forward in the literature included the hypothesis that the observed trends were a statistical artifact rather than a longrun trend reflecting the high excess death rate in 2014/15; that the observed trends were the result of population ageing and the transition to an older and frail population characterised by higher prevalence of dementia or Alzheimer's disease and greater vulnerability to seasonal flu; that the observed trends were being driven by a slowdown in improvements in cardiovascular mortality resulting from a slowdown in technological advances and or rising risk factors such as a slowdown in smoking improvements and / or rising obesity. Internationally, other countries also recorded declining rates of life expectancy gain during the second decade of the 21st century and another challenge to causal explanations focussing on austerity was that the adverse mortality trends observed during the 2010s were international phenomenon - non-unique to the UK. Rising drug

deaths were cited as a further possible explanation, with some analyses linking this to the 'death of despair' phenomenon reported in the US, while the role of austerity in explaining the stalling infant mortality rate was also being debated on the eve of the pandemic. Relevant trends relating to each of these different explanations are reviewed in section 7.4.

Alternative explanations: population ageing, influenza/flu, slowdown in cardiovascular mortality improvements, obesity and drug deaths

In response to these debates, an evidence review published by Public Health England (2018d) suggested that recent episodes of high excess winter deaths were at least in part explained by seasonal influenza and cold temperatures (c.f. section 7.4.5). The PHE review identified that the UK may have been undergoing a longterm epidemiological transformation or structural change in mortality trends associated with two key drivers: improvements from heart disease and stroke, which were leading causes of death, and which have historically driven improvements in mortality, but in relation to which the rate of improvements had been declining; and population ageing, which was resulting in longer survival with conditions such as dementia and Alzheimer's disease, which may have been resulting in increased vulnerability to seasonal flu and cold winters (c.f. section 7.4.4 and 7.4.5 for relevant evidence). In addition, the review identified drug poisoning amongst working age adults as a contributory factor to the observed slowdown in life expectancy and called for further evidence on the role of austerity.

An OECD working paper (Raleigh, 2019) examined the causes of a slowdown of life expectancy gains in several different countries. This study identified multiple common drivers including recent trends of diseases in older age, with declining improvements in cardiovascular disease mortality, increasing respiratory diseases including influenza and pneumonia claiming excess lives in some winters, especially amongst frail older populations. The study also highlighted rising levels of obesity and diabetes as international phenomenon and noted that in the US and the UK, increases in drug-related accidental deaths amongst working age adults had also been an important factor. A further paper (OECD & The King's Fund, 2020) underlined the particular role of decelerations in improvements in cardiovascular mortality in driving the slowdown in life expectancy gains in the UK and the US. Raleigh (2021) argued that the relationship between declining life expectancy gains and austerity is not straight forward some of that some of the countries where slowdowns in life expectancy were observed during the 2010s did not adopt harsh austerity measures

(Germany and Sweden) while other countries that did *not* observe declines in life expectancy gains did so (e.g. Spain, Greece and Ireland).

Nevertheless, prior to the pandemic, there was growing evidence that the UK had been more affected by adverse mortality and life expectancy trends than other EU and Western countries apart from the US, with Michael Marmot referring to the UK as the “sick man of Europe” (Guardian, 2017; Raleigh, 2017, 2018, 2019, 2021; Public Health England, 2018a; Marmot, 2020). Additionally, as noted above (section 7.4.8), ONS analysis of average improvements in life expectancy in the UK and 19 other OECD countries between 2006-2011 and 2011-2016 concluded that the UK experienced the greatest slowdown in average life expectancy improvement for females and the second greatest slowdown for males (ONS (2018a)); while similar analysis of average improvements in life expectancy between 2011 and 2017 showed England, Scotland and Wales recording lower gains than several other comparator countries (ONS (2020)).

The ‘deaths of despair’ hypothesis

Analysis for the IFS Inequalities Review (IFS, 2019) highlighted the possible relevance of the ‘deaths of despair’ hypothesis put forward by Case and Deaton (2015) for understanding pre-pandemic mortality trends in the UK. Whereas the initial studies linking adverse mortality trends to austerity focussed on older adults, the Case and Deaton analysis puts the spotlight on evidence of adverse developments in mortality trends amongst younger and mid-life adults and on the role of deaths from drug poisoning, alcohol and suicide as drivers. While opioid mortality in the UK is much more limited than in the US context, it is notable that mortality associated with drug poisoning and alcohol were both rising in years running up to the pandemic and suicides were also high (for the evidence, see section 7.4.6). Case and Deaton’s analysis highlights that in the US context, while increases in overall midlife White non-Hispanic deaths continued to decline since the late 1990s, middle age mortality amongst those without a college degree did not - with suicide, alcohol related deaths (liver disease and other alcohol related deaths) and deaths from drug poisoning playing a particular role.

In explaining this observed adverse trend in middle age mortality amongst those without a college degree, Case and Deaton point to rising prescription opioids fuelled by marketing practices within the US health industry combined with incentives within the US health system to overprescribe.

Case and Deaton's analysis also differs from some other approaches in that they highlight that their explanatory analysis focuses on a decline in labour market attachment for men without a college degree and multiple drivers that are *not* directly material. This includes loss of community; the declining marriage rate, family breakdown and 'out of wedlock babies'; erosion of roles, norms, meaning and status; and shifts away from religious institutions. Case and Deaton concluded from their analysis that American capitalism was not working for middle aged people without a college degree. Their concern, they highlighted, was not with inequality *per se* but rather with *procedural unfairness* which was resulting in despair for some and huge rents for others (Case and Deaton (2015); IFS (2019)).

The role of austerity in explaining the stalling of improvements in the infant mortality rate

The question of the role of austerity in explaining the stalling of the infant mortality rate that occurred after 2013 also generated substantial debate in the run up to the pandemic. Looking back to the first decade of the 21st century, there was a substantial improvement in the infant mortality rate, with inequalities by social class narrowing (Vizard & Obolenskaya, 2013; Stewart, 2013). However, as set out in the evidence review in section 7.4.7, after 2013, there was a sustained period of stalling progress. The unusual nature of this observed trend was highlighted in ONS analysis in 2019:

"The infant mortality rate had been reducing since the 1980s, but since an all-time low in 2014 the rate has increased every year between 2014 and 2017. These changes are small and subject to random fluctuations but when compared directly, the rate in 2017 is significantly higher than 2014. However further monitoring over the next few years is needed to confirm a change in the trend" (ONS, 2019c).

Prior to the pandemic, several studies attributed this to the effects of austerity and welfare reform, suggesting that the stalling of progress in reducing the infant mortality rate was part of a more general unravelling of child health in the UK since 2010 (Taylor-Robinson & Barr, 2017; Taylor-Robinson et al., 2018, 2019a; Zylbersztejn et al 2020). One key study (Taylor Robinson et al 2019b) identified that the rise in the infant mortality rate disproportionately affected the poorest areas of the country, leaving the most affluent areas of the country unaffected. It suggested that about a third of the increase in infant mortality in England from 2014 to 2017 may be attributable to rising child poverty (Taylor Robinson et al 2019b). Another key study concluded that the decline in geographical inequalities in the IMR observed during the 2010s had resulted from the implementation of the English health inequalities strategy over the period

1998-2010, and that austerity policies may have undermined these gains (Robinson et al., 2019).

However, other analyses suggest that the observed trends in infant mortality might be at least in part explained by changes in the stillbirth rate and post-natal death rate and that these might in turn be in part explained by changing in recording practices around stillbirth and / or medical advances that can mean very premature babies are born live but are at higher risk of death on the day of birth or within the neo-natal period. As noted above, ONS analysis concluded that a small recent increase in the proportion of very premature live births under 24 weeks completed gestation had contributed to increases in the neonatal mortality rate (ONS 2020j). Key studies also underlined the importance of gestation specific mortality in interpreting the observed trends in infant mortality (e.g. Davis et al. (2018), Nath et al 2020 - c.f. sections 7.4.7 and 7.4.8 for national and international evidence on gestation and birthweight specific trends in infant mortality).

7.5.3 Debates on the eve of the pandemic and subsequent developments in the literature

On the eve of the pandemic, different studies were therefore putting different weight on the role of austerity in explaining the adverse trends in mortality observed during the 2010s. However, there was a growing consensus that the factors driving the adverse trends are unlikely to be mono-causal, that austerity was at least playing a role and that some of the hypothesised causes (such as the impact of seasonal flu on the one hand, and of austerity related public expenditure constraints on the other), might be interacting. For example, Public Health England (2018d) concluded that it is not possible to attribute the recent slowdown in improvement to any single cause and noted that further research was required on the role of austerity. A further review of the evidence (Murphy et al., 2019) noted that research linking the slowdown in life expectancy to austerity had failed to identify specific causal mechanisms (i.e. general economic conditions, pension reform, cuts to social care), to prove causation or to account for similar changes in life expectancy internationally. However, this study accepted that austerity is a plausible explanation given that the slowdown in UK life expectancy coincides with cuts to public services. It also noted that the effect of an influenza outbreak may be more severe in the context of austerity and reductions in the quantity of public services provision (Murphy et al., 2019).

In early 2020, the Marmot '10 Years On' Review recognised that influenza and cold temperature, international factors and 'deaths of despair' may all help to explain the adverse mortality outcomes of the second decade of the 21st century, while putting greatest weight on austerity effects. The report concluded: "it is likely that the cuts have harmed health and contributed to widening health inequalities in the short term and are likely to do so over the longer term". The causal mechanisms identified in the Marmot review relate primarily to the underlying social determinants of health. Referring to a deterioration in underlying explanatory factors since 2010 including child poverty, investment in children, social security, working conditions and housing, the report concludes that austerity is likely "resulted in an increase in health inequalities ... [which] cannot be explained by influenza and cold temperature. Lives are being unnecessarily lost and harmed" (Marmot, 2020)⁴⁶.

More broadly on the eve of the pandemic, austerity was increasingly linked to adverse health outcomes including deteriorating trends in obesity and mental health. In October 2019, an independent report by the Chief Medical Officer recognised the importance of social determinants of obesity such as child poverty in explaining obesity inequalities (CMO, 2019) and as we noted in section 7.3.3 there were concerning levels of food insecurity during the years before the pandemic struck. Additionally, during the 2010s, a substantial body of literature addressed the links between adverse suicide and mental health outcomes in the wake of the financial crisis of 2007/8 and the subsequent economic downturn and onset of austerity⁴⁷ and prior

⁴⁶The report cites a WHO Euro study which suggested that only about 10 percent of self-reported health relates to healthcare, the rest in varying proportions to different underlying social determinants. See Citing a WHO Euro study which suggests that only about 10 percent of self-reported health relates to healthcare, the rest in varying proportions to different underlying social determinants. See (Marmot, 2020) for further details.

⁴⁷ This includes cross-country comparative studies and studies of impacts in many different countries of the world (Stuckler et al. (2011); Reeves, McKee, Gunnell et al. (2014); Van Gool and Pearson, (2014); OECD, (2014, 2015); WHO, (2011); Chang et al. (2013); Kentikelenis et al. (2011), Economou et al. (2015); Bernal et al. (2013); Antonakakis and Collins (2015a), Branas et al. (2015); Rachiotis et al. (2015); Tapia et al. (2017), Toffolutti (2014), Karanikolos et al. (2013), Karanikolos et al. (2016), Antonakakis et al. (2015b); Frasilho et al. (2016); Chang et al., 2009. Studies in UK context focussing on mental health include Katikireddi et al. (2012), Thompson (2018) and Coope et al (2014); and

to the pandemic several studies examined the relationship between different aspects of the welfare reform programme and mental ill-health. This includes key studies addressing the relationship between disability assessments and mental health (Barr et al. (2016)), more stringent eligibility conditions and mental health (Katikireddi et al 2018) and welfare conditionality and mental health (Wickham et al 2020). Additional evidence on the impact of welfare reform on mental health was set out in Cummins (2018), Cheetham et al (2019), SAMH (2019), Moth et al (2017), Moth et al (2018) and Bond et al (2019)).

In the period since the pandemic, the body of studies linking adverse mortality during the 2010s to austerity has continued to expand and to deepen in terms of the different mechanisms addressed and the range of methodological approaches being applied. For example, Friebel et al (2021) examined the relationship between opioid mortality and hospitalisations on the one hand, and trends in welfare expenditure in 152 English local authorities between 2010 and 2017, noting that austerity was associated with cuts of up to 50% in some local areas. The study identified that a one percent increase in the unemployment rate was associated with a statistically significant increase in opioid-related mortality per 100,000 inhabitants at lower levels of local authority expenditure on welfare programmes. However, higher levels of local authority expenditure on welfare programmes appear to compensate for the effects of unemployment, with this positive relationship between unemployment and opioid mortality breaking down and welfare programmes having a protective effect⁴⁸.

Martin et al (2021) estimated the cross-sectional elasticity of under 75 mortality in relation to public expenditure on healthcare, social care and public health in England using an instrumental variables regression

studies focusing on suicide and self-harm include Barr et al (2012), Hawton et al. (2016), Corcoran et al. (2015).

⁴⁸ Welfare expenditure was specified for the purpose of this analysis as local authority expenditure on social care and housing (covering financial support with housing costs for individual with income below a threshold and the cost of maintaining social housing), which were hypothesised to be linked to social risk, with greater expenditure being protective against adversities associated with unemployment. See Friebel et al (2021) for further details.

approach. Using the first two of these elasticities and data on the change in spending growth between 2001/2002–2009/2010 and 2010/2011–2014/2015, this study estimated that there were 57,550 (CI 3075 to 111 955) additional deaths in the second period than would have been observed had spending growth matched that in the period 2001/2002-2009/2010. The authors concluded that the findings are consistent with the hypothesis that the slowdown in the rate of improvement of life expectancy after 2010 is attributable to public expenditure constraints in health and social care.

Alexiou et al (2021) used multivariable fixed-effects panel regression models controlling for local socioeconomic conditions to estimate whether changes in local authority funding in England were associated with changes in life expectancy and premature mortality between 2013 and 2017. They estimate that mean per-capita central funding to local governments over this period decreased by 33% or £168 per person and that each £100 reduction in annual per person funding were associated with an average decrease in life expectancy at birth of 1.3 months for males and 1.2 months for female individuals and in life expectancy at age 65 years of 0.8 months for males and 1.1 months for females. Funding reductions were greater in more deprived areas and these areas had the worst changes in life expectancy.

Walsh et al (2022a) estimated the difference between expected trends in population standardised mortality rates in England and Scotland and observed all-cause mortality based on previous mortality trends (to 1981). In comparison with what was predicted (based on previous trends), this study reported a conservative estimate of approximately 335 000 additional deaths occurred between 2012 and 2019 the vast majority of which were recorded for males. Similar breakpoints in trends were identified after the introduction of the austerity programme in 2010 for males and females but more pronounced trends for females were identified in the 20% most deprived areas in both Scotland and England.

McCartney et al (2022) fitted a suite of fixed-effects panel regression models to mortality data (period life expectancy, age standardised mortality rates and age-stratified mortality rates) using international data and alternative measures of austerity. The authors report that austerity has a negative effect on mortality trends against three out of four austerity

indicators with the negative impacts of austerity being greater with increasing age for the age-specific mortality rates.

McCartney et al (2022b) rejected several of the hypothesised alternative explanations of stalling life expectancy trends during the 2010s identified above including demographic factors, rising dementia, extreme weather patterns and seasonal flu, while recognising that the slowdown in improvements in cardiovascular mortality and increased drug deaths have played a role. This analysis suggests that while these alternative factors are in themselves insufficient as explanations for the observed trends, with austerity likely to be the most substantial causal contributor, they might themselves be partly explained by underlying austerity effects.

Walsh et al (2022b) report that while the evidence suggests that austerity policies largely explain the observed slowdown in mortality improvements after 2012, pre-existing rising obesity from the pre-pandemic period also played a role. Specifically, this study identified that some of the slowdown in mortality trends in England and Scotland after 2012 may be explained by changes in the BMI distribution in Scotland and England that occurred during the pre-austerity period between the mid-1990s and late 2000s. The study involved calculating population attributable fractions resulting from changes in Body Mass Index (BMI) between the mid-1990s and late 2000s for all-cause mortality among 35–89-year olds in 2017–2019. The authors estimate that in Scotland, an estimated 10% (males) and 14% (females) of the difference between observed and predicted mortality rates among 35–89 year olds in 2017–2019 may be attributable to previous changes in BMI. The equivalent figures for England were estimated as 20% and 35%, respectively.

Other more recent studies focus on the relationship between morbidity prevalence and austerity. For example, Stokes et al (2022) examined the relationship between cuts in spending and prevalence of multi-morbidity and health related quality of life in 147 local authorities in England between 2009/10 and 2017/18. A positive association was identified between cuts in local authority spending and cuts in public health expenditure on the one hand and prevalence of multi-morbidities on the other; while cuts in adult social care expenditure were identified as being associated with a decrease in average health-related quality of life.

8. Conclusions and overall assessment of the state of health on the eve of COVID-19

Following on from the period we examine in this report, in early 2020, ordinary life across the world came to a halt when the global coronavirus pandemic struck. A public health emergency of international concern was declared in January 2020 followed by the declaration of a global pandemic in early March, with the UK entering a legally enforced period of lockdown on March 26th. Globally, the public health crisis triggered by COVID-19 and the economic and social shocks that occurred in its wake were unprecedented in nature and seismic in their scale, duration and impacts. In the UK, as in many other countries, the health system was re-orientated to focus on the COVID-19 public health emergency, with services and activities related to COVID-19 treatment, infection control and prevention delaying or displacing many routine health services and activities. Additionally, the public health crisis and the imposition of legally enforced lockdown and restrictions had multidimensional impacts across virtually every area of economic, social and individual life and across virtually every area of social and public policy. In parallel with legally enforced lockdown and broader restrictions, the government's immediate response to the pandemic included very substantial additional injections of public expenditure into health with the dual aims of supporting an immediate expansion of healthcare capacity and bolstering healthcare resilience. This included additional bed capacity, the development of public health and infection control infrastructure, the boosting of manufacturing capacity and substantial financing for a vaccine led prevention measures. The government's immediate pandemic response also included an unprecedented set of economic and social protection interventions designed to mitigate the economic and distributional consequences of crisis and to protect vulnerable groups.

Dealing with COVID-19 related mortality and morbidity inevitably put an extraordinary additional burden on the UK health system as it did on health systems globally. The COVID-19 pandemic resulted in an unprecedented global health shock - a sudden and seismic surge in health needs that occurred simultaneously across multiple countries and regions. In addition to the direct effects of COVID-19 in terms of increased mortality and morbidity, further challenges for the health system resulted from the postponement and displacement of routine services and activities for prolonged periods of time and from additional health impacts associated with the lockdown and restrictions. Backlogs of patients increased further,

both visibly on waiting lists and invisibly where medical treatment was not sought during the public health crisis and diagnostics and checks were not undertaken (Public Accounts Committee 2023).

At the time of finalising this report (in Spring 2023), the Public Inquiry into COVID-19 in the UK has just completed its preliminary hearings. The Inquiry has an extensive terms of reference and will address a wide range of issues including pandemic preparedness, capacity and resilience; the response to the pandemic through the health system, broader economic and social policy measures and legally enforced lockdown and restrictions; the impact of the pandemic and the public policy response, including health and mortality impacts, broader public policy impacts (for example in relation to adult social care and education) and broader economic and social impacts (including impacts on the economy, on care home residents, vulnerable children and on broader wellbeing). In addressing these terms of reference, the Inquiry will consider unequal impacts of the pandemic by characteristics such as deprivation, ethnicity, disability and gender. It is also anticipated that the Inquiry will consider a series of critical human rights concerns relating to the protection of life and access to essential health and medical care in care homes, including, *inter alia*, access to personal protection equipment and essential medical treatment, the large scale transfer of hospital patients to care homes without testing and the adequacy of associated official guidance and regulations in the initial stages of the pandemic, and the use of do not resuscitate orders and visiting restrictions within care homes as the pandemic progressed. Finally, the Inquiry will draw lessons for the future, feeding into broader reflection on how resilience to health shocks can be strengthened both nationally and globally (Independent Public Inquiry to examine the COVID-19 pandemic in the UK 2023).

Like the other papers in the SPDO research programme, the analysis of health developments in this report stops in early 2020 - the eve of the COVID pandemic. That is, we have *not* attempted to provide an assessment of the seismic impact and consequences of the public health crisis that struck in early 2020 within this report or of the state of the health system in the aftermath of the public health crisis. However, in building up detailed evidence on goals, health policy developments, public expenditure trends, service provision and health outcomes during the five-year period running up to the public health crisis, we believe that the findings in the report are of critical importance in terms of understanding the overall state of the health system when COVID-19 struck. The pre-existing patterns of risks and vulnerabilities from the eve of the pandemic also help to explain the impact that COVID-19 has had on different groups, providing essential

context for the further widening of mortality inequalities that occurred when the pandemic struck, as well as for understanding the nature and scale of the ongoing pressures on the health system in its aftermath.

For these reasons, our analysis concludes with an overall assessment of the state of health on the eve of the COVID-19 pandemic. Looking across our findings on inheritance, goals, policies, expenditure, inputs and outputs, and outcomes for the period May 2015 to early (pre-COVID) 2020, we highlight fifteen key findings which raise serious concerns about the limitations and weaknesses of the health system when the global pandemic struck. Finally, we reflect on the formidable policy challenges from before the pandemic struck and make some final observations looking forward to the 2020s.

8.1 The state of health on the eve of COVID-19

In this section we look across the evidence on inheritance, goals, policies, expenditure, inputs and outputs, and outcomes identified in this report for the period May 2015 to early (pre-COVID) 2020. We highlight fifteen key findings which raise serious concerns about the limitations and weaknesses of the health system when the global pandemic struck.

(1) On the eve of the COVID-19 pandemic, the NHS remained a universal health system, free at the point of delivery based on need not ability to pay - however, little or no progress had been made in 'future proofing' the NHS by addressing the fundamental challenge of how to deliver a sustainable NHS funding model for the 2020s.

When the COVID-19 pandemic struck in early 2020, the NHS remained a universal healthcare system providing free care at the point of use, based on need not ability to pay, and funded overwhelmingly by general taxation supplemented by national insurance. While there had been a breakdown of universalism 'at the margins', with increased emphasis on health charging and its enforcement for some migrant groups, alternative health system and funding model options - such as a private health insurance system, a health system based on social insurance or more extensive charging (for example, charging for 'hotel costs' or GP appointments) - had not pursued between 2015 and early 2020. With the exception of the overseas visitors charging regime, the 2015, 2017 and 2019 Conservative Party Manifestos all included high level commitments to a free and tax funded NHS.

However, during the five-year period under examination, with the focus of politics overwhelmingly on Brexit, little or no progress had been

made in addressing or resolving the fundamental challenge of how to align health supply, need and demand by increasing the level and share of national resources devoted to health and care.

- Looking back to 2001, options for increasing the proportion of national resources devoted to health and care were considered by Labour in the wake of the Wanless review included general taxation supplemented by national insurance; a hypothecated or ring-fenced tax model; or a social insurance model. During the first decade of the 21st century, the then Chancellor Gordon Brown achieved a sustained increase in national sources allocated to health through a substantial increase in national insurance contributions.
- In 2014, the Barker Commission identified tax-based models, private and social insurance models, and for revenue raising such as charging and co-payments, as possible options for the future. While recognising the advantages of a hypothecated tax model, the Commission concluded that this option was probably politically infeasible and called for a shift towards a single health and social care ring-fenced funding model funded through increased general taxation (including new forms of asset-based taxation) coupled with increased revenue raising such as patient charging and restrictions on free prescriptions.

The Barker Commission recommendations were not implemented after 2015 and calls for a shift towards hypothecation (e.g. Layard 2017) were also not pursued. Revenue from hospital parking charges increased and the Immigration Health Surcharge resulted in a revenue stream from overseas visitors. However, these measures proved controversial and did not address the fundamental mismatch between health expenditure, demand and need. Additionally, the 2019 Conservative Party Manifesto suggested a turn in direction, with car parking charges being limited in the future, as well as ruling out income tax or national insurance increases. This high-level commitment appeared to rule out both general taxation and national insurance as vehicles for raising additional revenue to fund health and care going forward. In combination with the continued failure of successive governments to deliver a sustainable funding model for social care (c.f. Burchardt et al 2021), this left the fundamental challenge of delivering a sustainable health and social care funding model for the 2020s unresolved when the pandemic struck.

(2) The Coalition's health system reforms continued to be rolled out after the General Election in May 2015 - but had failed to deliver on the triple challenges of health inequalities, public and preventative health, and integrated and person-centred care, when the pandemic struck.

In May 2015, the beginning of the period under examination, the majority Conservative Government led by David Cameron that came to power after the General Election in May 2015 inherited a health landscape in England that had been substantially transformed by a programme of reforms introduced under the Coalition and these continued to be rolled out and to bed down after 2015. However, by early 2020, the eve of the COVID-19 pandemic, there was a growing consensus that the new bodies and arrangements brought about by the Coalition's 2012 health reforms were failing to deliver on the triple challenges of health inequalities, preventative health and integrated care.

- **First, on health inequalities, there were concerns that system level accountability and responsibility remained too weak.** Fundamental questions were being asked about overall system wide accountability and responsibility for providing a comprehensive health service, improving health outcomes and reducing health inequalities. Whilst the Health and Social Care Act 2012 established a new and innovative system of statutory health inequalities duties, the Marmot '10 Years On' Review concluded that health inequalities had not been prioritised and that the drivers of change - including overall systems for monitoring health inequalities and for delivering effective public action to ensure strategic change - were too weak.
- **Second, there had been a failure to deliver the major "bottom-up" drive on preventative health and health inequalities that had been anticipated as part of the Coalition's health reforms in 2012.** The Coalition's 2012 health reform package had included the devolution of public health functions to local government and foresaw a major role for local bodies in spearheading a new 'bottom up' drive on public and preventative health and health inequalities. NAO analysis in early 2020 suggested that ambitions on public and preventative health had not been adequately funded, with cuts to local government public health allocations interacting with broader resource

constraints within local government. Concerns had also been raised about the extent to which levers of control are truly within the scope of local government and the alignment, co-ordination and integration of roles, responsibilities and accountabilities between local government, Public Health England (which had been given a co-ordinating role) and the NHS.

- **Third, there was a growing consensus that aspects of the competition and commissioning regime were barriers to the collaborative practices necessary for integrated and person-centred care.** The 2012 Health and Social Care Act introduced a raft of measures around competition, commissioning and procurement. However, prior to the pandemic, a consensus had emerged amongst bodies such as the Health and Social Care Select Committee, NHS England and the National Audit Office that the operation of some aspects of the competition and procurement regime introduced in the Health and Care Act 2012 posed a barrier to integrated care. In September 2019, NHS England and NHS Improvement published joint proposals to eliminate legislative barriers to integration including major changes to the operation of competition, commissioning and procurement. In early 2020, just prior to the pandemic, the Johnson Government indicated that such changes were now firmly on the health agenda (c.f. section 4.3.2).

Policy failures in each of these areas were exposed when the pandemic struck. The major drive on preventative health foreseen in the Coalition's public health reforms had not been delivered and the failure to invest in public and preventative health during the 2010s provides essential context for the systemic weaknesses and limitations of the preventative and public health system that were revealed in early 2020. The health and care systems remained fragmented rather than integrated – as was tragically exposed during the pandemic itself - and there was an urgent need for a major, comprehensive and sustained programme of public action to reduce health inequalities.

(3) There were some important policy advances during the five-year period under examination – including some (albeit limited) progress towards integrated and person-centred care, increased policy focus on mental health, new fiscal and regulatory measures in preventative health, and high-level direction on health inequalities under Theresa

May – but key recommended policies on obesity were not followed through.

- **Progress towards integrated care.** Section 4.1.1 of this report identifies that while overall progress in delivering integrated health and care was substantially slower than had been set out in the plans for the period published by NHS England in 2014, the progress that was made was nevertheless an important positive development in the years running up to the COVID-19 pandemic. Both the NHS Five Year Forward View plan (2014) and the NHS Plan (2019) put central emphasis on the importance of service integration as a means of delivering high quality and patient focussed care, while internationally, there was growing recognition of the importance of integrated health and care systems in the context of population ageing (World Health Organization, 2015a). Devolved health policies were also taken forward as part of new arrangements for city region devolution, resulting in new models of integrated health and care in Greater Manchester. The SPDO adult social care paper (Burchardt et al (2020b)) additionally identifies sustained emphasis on health and social care integration as a key strength on the eve of the pandemic, with particular progress in relation to pooled budgets, which in turn helped to advance joint health and care planning practices. The SPDO overview paper (Vizard and Hills 2021) concluded that policy was moving in the right direction prior to the pandemic, with increased emphasis on integrated care and collaborative practices, and that emerging good practice and new provider partnerships might be assessed to have provided a stronger foundation for collaborative practices during the pandemic than might otherwise have been the case.
- **Mental health received greater social recognition and gained ground as a policy focus.** Section 4.4 identifies a series of positive policy developments in relation to mental health policy between May 2015 and early 2020. All three of the Conservative Party Manifestos that were published during this period included commitments on achieving parity of esteem and giving equal attention to mental health. Theresa May's 'burning injustices' speech moved the issue of mental health up the political agenda. In addition, there were several important mental health initiatives during this period including the introduction of new mental health

access and waiting time standards; additional funding as part of the NHS new financial settlement introduced at the time of the NHS Anniversary in July 2018; and initiatives relating to psychological therapies, crisis support, children and young people's mental health services; and on mental health in the workplace and within schools. A review of the Mental Health Act (1983) which was undertaken as a response to rising rates of detention and racial disparities recommended legislative reform. A suicide strategy was also established and a new role of Minister for Mental Health, Inequalities and Suicide Prevention was introduced. Our overview report (Vizard and Hills 2021) concluded that the fact that mental health continued to move up the policy agenda between May 2015 and early 2020 may have helped to have ensure recognition for mental health and suicide as key concerns during the COVID-19 pandemic and lockdowns.

- **In relation to preventative health, there was progress relating to sugar-sweetened soft drinks, plain cigarette packaging, clean air and minimum alcohol pricing and a new public health approach to violence – although 'nanny state' rhetoric on anti-obesity measures returned in summer 2019.** A series of important fiscal and regulatory measures during the period aimed to drive system-wide change and the prevention of ill-health rather than the treatment of disease at the individual level. Plain cigarette packaging was implemented in England and Wales in 2015 and in Scotland in 2018. While the anti-obesity measures that were introduced in England between May 2015 and early 2020 were criticised as being too limited in scope, a new Soft Drinks Industry Levy which targeted sugar-sweetened soft drinks was positively assessed (CMO, 2019). New minimum alcohol pricing policies were introduced in Scotland and Wales. In England, clean air zones were introduced in some local areas and following the 2019 General Election, the Environment Bill was re-introduced in Parliament in January 2020. This included a commitment to introduce a legally binding air pollution target on fine particulate matter and to strengthen local authority enforcement powers in relation to air quality. A new public health approach to violence was also put into place. In contrast, in early 2020, when the pandemic struck, many of the measures recommended in the

Chief Medical Officer's report on obesity remained unimplemented. There had also been a notable return to 'nanny-state' rhetoric on issues such as obesity during the Conservative Party leadership election in summer 2019, leading to a new wave of concerns about the direction of preventative health politics on the eve of COVID-19.

- **Two ambitious strategic plans were also in place prior to the COVID-19 pandemic.** A new NHS Longterm Plan was jointly published by NHS England and NHS Improvement in January 2019 (NHS England and NHS Improvement, 2019). This set out ambitions for the upcoming period relating to integrated care, to expand primary care and prevention, to deliver parity of esteem for mental health and to better address dementia and Alzheimer's disease - although a much-awaited related Workforce Plan had not been published when the pandemic struck. Public Health England had also published its strategy for 2020–2025. This set out an ambitious national agenda for the period 2020-25 relating to preventative health (obesity, smoking, diet, clean air, vaccination rates) as well as on mental health and infectious diseases (Public Health England 2019).

On health inequalities, the 'social determinants' approach received attention in the work of Public Health England and in some local initiatives, particularly in so-called Marmot areas. Theresa May's 'burning injustices' speech delivered on the steps of Downing Street on 13th July 2016 also set out an agenda for social change that highlighted the importance of overcoming social divisions and creating "a Britain in which burning injustices are tackled and overcome". The speech identified two key health related injustices: "the life expectancy gap of nine years for those born poor" and "insufficient support for those who experience mental health problems". Addressing these and other 'burning injustices' - and delivering a Britain that works for all not a few - were identified as the central mission of the May Government moving forward in the wake of the Brexit vote (May, 2016). During this period, there was also Prime Ministerial level focus on health inequalities by ethnic group with the publication of the findings of the Race Disparities Audit in 2017. However, the political turmoil during summer 2019 and the general election during Autumn 2019 put the breaks on further progress and delivery in relation to these missions prior to COVID-19.

(4) Public expenditure on health increased at a faster rate than had been the case under the Coalition Government but austerity and the resources squeeze continued after the 2015 General Election with spending increases remaining low historically and failing to keep pace with need and demand during the second decade of the 21st century.

Our analysis of public expenditure on health (section 5) identifies that growth in public expenditure on health was higher under the Conservative Governments between May 2015 and pre-COVID 2020 than it had been under their predecessor, the Conservative Liberal Democratic Coalition Government, that had been in power between May 2010 and 2015. Moreover, in England, financial plans that were already in place prior to the pandemic built in an uplift in spending for the period up to 2023/24. Theresa May's declaration of the 'end of austerity' in 2018 had been combined with a new financial settlement for the NHS at the time of its 70th Anniversary in July 2018. This provided for higher average annual rates of expenditure between 2018/19 and 2023/24 than had been the case under the earlier period of Conservative majority Government (up to 2017/18) and under the Coalition during the first half of the decade. This uplift was confirmed in the 2019 Conservative Manifesto and in England the March 8th 2020 budget substantially increased resources allocated to health up to 2023/24 compared to previous plans. Additional resources had already begun to feed-through prior to the pandemic, with growth in year-on-year expenditure in 2019-20 substantially higher than in previous years in the 2010s even before COVID-19 related public expenditure is accounted for. The SPDO adult social care paper additionally identifies positive growth in public expenditure on adult social care in England between May 2015 to early 2020, contrasting with a previous period of public expenditure cuts under the Coalition (Burchardt et al (2020b)).

Nevertheless, the resources squeeze that had begun under the Coalition essentially continued - with increases in public expenditure on health remaining historically low and substantially less than the rates recorded during the first decade of the 21st century. The broadest official measure of public expenditure on health assessed in this report includes spending by the devolved administrations and local government. Using this definition, the average annual increase in real public sector expenditure on health in the UK was 1.6% between 2014-15 and 2018-19 (before the new NHS financial settlement fed through) and 2.3% between 2014-15 and 2019-20 (after the effects of the new NHS financial settlement began to be felt). This was higher than under the

Coalition (1.1%) but substantially lower than the historical average (4.4%). Comparing expenditure on health during the first and second decades of the 21st century, there were average increases of 6.6% per annum between 1999-00 and 2009-10, compared with 1.7% per annum between 2009-10 and 2019-20.

Moreover, looking at the second decade of the 21st century as a whole, rates of public expenditure growth failed to keep pace with simple indicators of need and demand. Under the Coalition, increases in volume public spending on health in the UK were exceptionally low and lagged behind simple indicators of need and demand such as increases in the older populations aged 65 and 85 and above, GDP and disposable household income. Trends under the Conservative Governments after May 2015 were somewhat more positive, with increases in volume (though not real) expenditure outpacing increases in GDP and the older population. However, looking at the second decade of the 21st century as a whole, the average annual increases in real and volume spending were outpaced by the increases in several simple indicators of need and demand, including increases in the older population, GDP and disposable household income (2009/10 to 2018/19). Total (public and private) expenditure on health as a share of GDP was just above the EU-14 average at about 10% on the eve of the pandemic (in 2019). However, looking at per capita spend in 2019 (in \$PPPs), the UK was second lowest in the G7 and lagged behind several comparator countries including France and Germany by a considerable margin when the global COVID-19 pandemic struck.

(5) 'Relative protection' of the NHS England budget was combined with cuts in other elements of Department of Health and Social Care spending - including cuts to public health - while projected spending under the financial plans put into place before the pandemic remained less than experts deemed necessary to meet need and demand going forward.

In England, the health budget continued to be relatively protected compared to other budgetary areas after 2015, as it had been under the Coalition. Looking at breakdowns of departmental spending in England prior to the new financial settlement for the NHS, real average annual growth rate of the NHS England budget was 2.4 per cent over the period 2014-15 to 2018-19. The new financial settlement for the NHS resulted in an increase in the NHS England budget of 6.1% in 2019-20. Taking account of the uplift, the average change in the NHS

England budget was 3.1% per annum and the average change in the total Department of Health and Social Care budget was 1.7% per annum.

While NHS England spending over this period was 'relatively protected' compared to some other areas of public expenditure, these increases were less than the amounts that experts deem necessary to keep pace with need and demand. On the eve of the pandemic, estimates of what is necessary to keep up with need and demand pressures ranged from about 1.5 per cent per annum to keep pace with demographic pressures alone to 3-5 per cent taking into account technological and medical advances and broader need pressures. Moreover, the overall Department of Health and Social Care budget increased at a slower rate than NHS England budget (an average of 1.7% per annum) reflecting cuts in some areas.

- The public health budget for local government was cut by 8.2% between 2015-16 and 2018-19 (including spending on services for children aged 0-5 some of which were transferred to local authorities from 2015/1649). King's Fund data shows that on a comparable basis (excluding spending on services for children aged 0-5), revenue expenditure on public health by local authorities fell by 19% between 2014-15 and 2018-19, and a further planned cut of 2.7% in 2019-20, bringing the total planned change between 2014/15 and 2019/20 to 21%.
- The education and training budget was cut by 14.0% between 2014-15 and 2018-19 while the capital budget was cut between 2014-15 and 2016-17 but increased by 11.6% between 2014-15 and 2018-19. Against a background of concerns about the maintenance backlog, medium-term plans for infrastructural improvements were delayed during 2019. However, a £2.7 billion investment for additional infrastructural improvements was announced at the end of September 2019.

Strategic plans over the period specified that spending in England would be prioritised in certain areas including mental health, public and

⁴⁹Authors' calculations using DHSC (2019a) (nominal figures) and HM Treasury (2019a) (GDP deflators).

preventative health and out-of-hospital care. In practice, mental health spending did increase relative to other areas of the NHS England budget. However, cuts to the local authority public health grant constrained the ability to deliver a step-change in public and preventative health while hospital expenditure as a percentage of total NHS expenditure increased. Moreover, even in the absence of the additional needs, demands and pressures associated with COVID-19, the funding settlement in England that was in place on the eve of the pandemic was insufficient to keep pace with need and demand in the 2020s.

- King's Fund analysis from before the pandemic concluded that while the settlement would "ease current pressures, it is not enough to simultaneously restore performance against key waiting times standards and transform services to deliver better care" (The King's Fund, 2019c).
- Health Foundation welcomed the additional funding whilst raising concerns that it would be insufficient to deal with growing demand and that in order to deliver the planned increases in funding for mental health services and primary and community care, other areas of activity would have to give, jeopardising the ability of the NHS to cope with other demand side pressures such as those associated with population ageing and complex needs (Charlesworth et al., 2019).
- Further concerns were expressed that the financial settlement for the NHS related to NHS England finances (rather than the DHSC total budget). Based on the plans published just before the 2019 general election, Health Foundation analysis suggested that the projected annual real terms growth in the total DHSC budget between 2019/20 to 2023/24 would be only 2.9 per cent - less than that projected for the NHS England budget as a whole (Gershlick et al., 2019, p. 8).

(6) The supply side (healthcare capacity) continued to expand at substantially lower rate than had been the case during the first decade of the 21st century – but average annual increases in public services healthcare productivity remained relatively high, indicating that the healthcare system continued to do 'more for less'.

During the first decade of the 21st century, the sustained increases in health expenditure in the UK financed a rapid and substantial supply

side expansion and annual rates of growth in healthcare inputs (for example, the healthcare workforce) and outputs (activities and procedures such as hospital services and GP consultations) were maintained at relatively high levels for over a sustained period. In contrast, during the second decade of the 21st century, the resources squeeze was reflected in substantially lower rates of input and output growth, with supply side capacity expanding at a substantially lower rate than had been the case during the first decade of the 21st century.

- **Inputs.** ONS estimates for 2015-2018 show that public service healthcare input growth in the UK per year averaged 2.4% under the majority Conservative Governments and 1.7% under the Coalition. This compares to substantially higher annual input growth of 4.8% per year during the period of sustained and rapid supply side expansion under Labour.
- **Outputs.**
 - ONS estimates for 2015-2018 show that (quality adjusted) growth in public service healthcare outputs in the UK averaged 3.1% per annum under the majority Conservative Governments, compared to 3.5% per annum under the Coalition and 5.3% per year during the sustained and rapid period of supply side expansion under Labour.
 - ONS estimates for 2015-2017 show that volume (non-quality adjusted) growth in public service healthcare outputs in the UK averaged 3.3% per annum under the majority Conservative Governments, compared to 3.2% per annum under the Coalition and 4.9% per year during the sustained and rapid period of supply side expansion under Labour.

ONS measured healthcare productivity growth – which captures the relationship between healthcare outputs and inputs – increased during the second decade of the 21st century. Productivity growth in the UK averaged 1% per annum under the Conservatives (2015 to 2017) and 0.7% (2015 to 2018) compared with 1.8% under the Coalition (2010 to 2015). This was higher than the average rates of 0.5% that were recorded under Labour administrations (1997 to 2010) during the period of rapid public expenditure growth and supply side expansion. This increase in annual productivity gains reflects output growth outpacing input growth with a greater margin during the 2010s, with input growth depressed by slower growth in costs resulting from slower

workforce expansion as well as the public sector pay deals which constrained wage growth. In this sense, it can be said that health as a sector was doing 'more for less'. However, productivity estimates require careful interpretation in the context of overwhelming evidence of need exceeding supply and because ONS productivity measures do not provide a comprehensive picture of pressures on the health system or whether the healthcare system achieves its intended outcomes (ONS 2020i). Productivity gains were partly driven by wage restraint – with implications for workforce quality and quantity in the future – while concerns were expressed over the period about depreciation of capital stock including buildings, medical equipment and IT – with potential impacts for future productivity and service transformation. Moreover, on the eve of the pandemic, analysis by the National Audit Office highlighted that substantial infrastructural backlogs were storing up problems for the future, with parts of the NHS estate not meeting the needs of a modern health system, while IT systems were fragmented and outmoded and a barrier to digital service delivery going forward (NAO 2020ac).

(7) Systemic pressures on the healthcare system continued to mount up – with waiting for medical treatment increasing substantially between the General Election in May 2015 and early 2020, and 4.43 million patients in England already on waiting lists for hospital treatment on the eve of the COVID-19.

Estimates suggest that in March 2019, people on an elective waiting list made up 8% of the population in England, 7% in Scotland, 14% in Wales and 21% in Northern Ireland. Data for England shows that on the eve of the COVID-19 pandemic:

- **The proportion of the population waiting for medical treatment had grown substantially.** The operational standard for referral to treatment by a GP or other practitioner within 18 weeks was not met between February 2016 and early 2020 (based on the 'incomplete pathways' standard). In February 2020, the eve of the COVID-19 pandemic, 4.43 million patients in England were already waiting to start treatment.
- **Waiting times for first cancer treatment had grown substantially.** The operational standard for a two month wait between GP urgent referral and first cancer treatment was not met between December 2015 and November 2019. In November 2019,

77.4% of patients waited two months between urgent GP referral and first cancer treatment, a 6.1 percentage point deterioration compared to November 2015. As a result, on the eve of the pandemic, in November 2019, 201,395 patients were waiting between a GP urgent cancer referral and a first consultant appointment, a substantial (52%) increase compared to 145,944 patients in November 2015.

- **Waiting times in accident and emergency had also increased substantially.** In November 2019, 81.4% of patients attending A&E in England waited less than 4 hours (Figure 24). This figure represented a decline of 10 percentage points compared to November 2015 figure with the 95% operational standard not met at any point between July 2015 and November 2019. There was then a further slide in December 2019 to 79.8%, the lowest figure since records began. In December 2019, 396,762 people waited for 4 hours or more in A&E departments across England. At the time, this was the highest figure since records commenced and represented a 162% increase in the number of people waiting 4 hours or more in A&E compared to December 2015.

(8) There were additional signs of capacity pressures against multiple other indicators – with workforce shortages, primary care deficits, delayed discharges, bed occupancy pressures and blanket postponement of operations also being evident within the English healthcare system in the run up to COVID-19.

- **Workforce shortages.** In June 2019, the Interim NHS People Plan identified substantial shortages across a wide range of NHS staff groups including GPs, psychiatrists, paramedics, radiographers and dentists. Shortages of nurses were identified as the most urgent issue, with particular shortfalls in mental health, learning disability, primary and community nursing. In hospital and community health services, there were around 40,000 reported vacancies in substantive nursing posts (with around 80% of these shifts covered by agency or bank staff). In total, on the eve of the pandemic, estimates point towards 100,000 vacancies in health coupled with 100,000 in social care. National Audit Office estimates from early 2020 suggest only a 5% increase in students starting undergraduate nursing degrees 2017–2019 compared to

a 25% target. On the eve of the pandemic, the publication of a NHS Workforce Plan had been delayed.

- **Bed occupancy pressures.** Major concerns about capacity pressures and high levels of bed occupancy were expressed by health experts between May 2015 and early 2020. While critical care bed availability grew and occupancy pressures eased, overnight general and acute bed occupancy increased in both summer and winter between 2014/15 and 2018/19. There was a peak at almost 93% in Q4 2017/18 while acute bed occupancy rates were also high in Q3 2019, the eve of the COVID-19 pandemic.
- **Avoidable admissions, reablement services and delayed discharges.** Trends in these indicators provide a basis for assessing the extent to which primary and community health and care services are meeting the needs of older people, with major consequences for the inflow and outflow of older people into and out of the hospital system. Avoidable admissions have been on an increasing trend since the mid-2000s and recorded 1414.2 per 100,000 population in 2018/19. The proportion of older people receiving reablement services after discharge from hospital fell from a high of 3.3 per cent in 2013/14 to 2.7 per cent in 2016/17 but increased in 2017/18. Delayed transfers of care peaked at 200,095 days per month in October 2016-17 and improved somewhat to 127,207 days per months in February 2018-19. However, prior to the COVID-19 pandemic, between April and December 2019, delayed transfers were trending upward again.
- **Blanket postponement of operations.** As identified below, in England in winter 2017/18, blanket postponement of non-urgent operations were introduced in response to extreme winter pressures.
- **International comparisons.** On the eve of the pandemic, the UK recorded fewer doctors and nurses per head than some comparator countries including Germany. While data limitations make strict comparisons complex, data from just before the pandemic shows that the UK ranked in the middle to the bottom end of international comparator country comparisons for the availability of hospital and intensive care beds relative to the population and that occupancy rates for acute beds were relatively high (although the total number of critical care beds was on an

increasing trajectory pre-pandemic). The UK was also ranked below some relevant comparator countries in terms of access to certain medical equipment (e.g. ventilators per head and some diagnostic scanners).

(9) Trends in reported patient experiences were mixed with many aspects of patient experience remaining positive and improvements against some indicators – however, some areas of patient experience including experiences of community mental health services remained substantially worse, there were signs of deteriorating experiences against key indicators including in relation to person-centred and integrated care, inequalities in experiences of accessing general practice and cancer care by socioeconomic deprivation and ethnicity persisted, and overall satisfaction with the NHS was at its lowest level for a decade in 2018.

- **CQC inspection findings.** Evidence collected through the CQC inspection system during the period highlighted concerns around the availability and quality of mental health services including crisis care and services for individuals with learning disability and autism, including detention and discharge practices, inappropriate placements and seclusion. CQC assessments also identified non-uniform progress in relation to integrated and person-centred care for older people.
- **Patient experience.** Trends in reported patient experiences were mixed. While many aspects of patient experience remained positive on the eve of the pandemic, experiences in some service areas and in relation to some dimensions of patient experiences remained systematically worse, with signs of stalling progress or retrogression and continued evidence of substantial inequalities by characteristics such as socio-economic disadvantage and ethnicity in relation to some indicators.
 - While overall inpatient experiences remained positive, the overall inpatient experience indicator declined and overall experiences were worse for some ethnic minority groups. The proportion who felt they should have been admitted a lot sooner passed the 10% threshold for the first time in ten years and several dimensions of inpatient experience of integrated and person-centred care had declined or stagnated. A key indicator relating to help with eating while

in hospital had been improving during the earlier part of the decade in the wake of the Independent Inquiry into the scandal at Mid-Staffordshire NHS Trust (the Frances Review) but began to deteriorate again after 2015 while there were no further improvements in inpatient experiences of dignity and respect after 2015.

- Overall experiences of cancer care improved between 2015 and 2019. However, there were deteriorations in reported experiences against some indicators in the 2019 survey and experiences relating to home care and home-based support from health or social services were consistently worse. Overall experiences of cancer care and experiences of sufficient nurses being on duty were worse in more deprived areas and there were both socio-economic and ethnic disparities in the number of times patients visited GPs prior to hospital treatment - with those in the most disadvantaged areas and Black patients more likely to report visiting GPs five or more times.
- There were improvements in experiences of some areas of urgent and emergency care but deterioration in experiences of waiting.
- There were indications of improvements in some aspects of reported maternity care experiences. However, survey results from before the pandemic raised concerns about the availability of staff and support in hospitals after birth, outside of acute settings and postnatally - with a deterioration in the proportion reporting that they saw a midwife as much as they wanted at home following a birth. Additionally, 16% of respondents indicated that they did not always get help when needed during labour and birth and 3% that they did not get enough help.
- Reported experiences of community mental health services remained poor in the 2019 survey across most areas, with declines in the proportion of respondents who reported that they had seen NHS mental health services enough for their needs and in the proportion of respondents who felt that they were given enough time to discuss their needs with health and social care workers between 2014 and 2019.

- Overall patient satisfaction with GP services declined between 2011/12 and 2016/17 and there were substantial inequalities in reported experiences of GP services by socioeconomic disadvantage and for some ethnic groups on the eve of the COVID-19 pandemic.
- **Satisfaction with the NHS.** Overall satisfaction with the NHS was at its lowest level for more than a decade in 2018 but improved somewhat in 2019, just prior to the pandemic.

(10) The period running up to the pandemic was characterised by repeated warnings from experts relating to austerity effects, lack of financial sustainability and the weakening of the healthcare system – with major concerns regarding the erosion of healthcare resilience and the capacity of the healthcare system to cope with health shocks such as a severe outbreak of flu being highlighted during the years running up to COVID-19.

The period between May 2015 and pre-COVID 2020 was characterised by repeated warnings from authoritative bodies and health experts in relation to austerity effects, lack of financial sustainability, the weakening of the healthcare system and the erosion of the resilience of the healthcare system.

- In March 2018, the Public Accounts Committee found that 'The NHS is still very much in survival mode, with budgets unable to keep pace with demand' whilst in June 2018 the Health and Social Care Committee concluded that '(f)unding and workforce pressures on NHS, social care and public health services present significant risks to the ability of the NHS even to maintain standards of care, let alone to transform', impacting on progress towards integrated care.
- In October 2019, the Care Quality Commission's annual report highlighted high demand and workforce pressures across health and care, with mounting access and quality challenges and particular evidence of deterioration in mental health inpatient services.
- In February 2020, in its transformation and sustainability assessments, National Audit Office analysis suggested that growth in waiting lists, slippage in waiting times, workforce vacancies and substantial deficits in some parts of the healthcare system did "not add up" to a picture that could be described as sustainable.

Ambitions to deliver a step-change in public and preventative health had not been matched by funding.

- Commenting on NHS performance data in late 2019, the Health Foundation warned that the safety net of the NHS was at risk of breaking down (The Health Foundation, 2019).

On the eve of the pandemic, major concerns had been expressed regarding the capacity of the healthcare system to cope with seasonal increases in demand during winter, winter flu epidemics and other major adverse health shocks.

- Major concerns relating to a lack of preparedness for a major pandemic were raised in health emergency planning exercises in 2016 ('Operation Cygnus'). This included warnings around NHS capacity, shortages of intensive care beds, ventilators and personal protection equipment and the resilience of the care sector. The findings from this exercise were not disclosed at the time but were reported in the media during the first lockdown.
- In contrast though, in October 2019, a global study of health security examined the capacity of 195 countries to identify and respond to biological events such as epidemics, pandemics and biological warfare. The UK was ranked second in terms of overall health security and first in terms of rapid response to and mitigation of the spread of an epidemic (GHSI 2019).

(11) The extent of the extreme winter pressures on the healthcare system in winter 2017/18 provided an 'early warning' of the extent of capacity constraints and vulnerability of the older frail population to infectious disease, with high bed occupancy pressures, blanket cancellation of operations and a period of high excess deaths.

A period of extreme healthcare pressures over winter 2017/18 coincided with a period of severe seasonal flu followed by an unusual cold winter spell (the 'Beast from the East').

- **Hospital bed occupancy rates were particularly high during winter 2017/18.** Overnight general and acute bed occupancy increased in the years running up to the pandemic and hospital bed occupancy rates were substantially higher than in other comparator countries. It is notable that overnight general and acute bed occupancy peaked at almost 93% during the period of extreme winter pressures in 2017/18 and that occupancy rates

were also notably high just before the pandemic struck and arrangements were made to transfer large numbers of inpatients into care homes during the early phase of the first lockdown.

- **Cancelled operations.** In an unusual move in response to extreme winter pressures in January 2018, non-urgent operations were postponed throughout England. On the eve of the pandemic, the number of cancelled non-urgent (elective) operations was also high compared with previous quarters, with 23,000 nonurgent (elective) operations cancelled in the three months between September 2019 and December 2019.
- **There was a sustained period of high excess deaths during winter 2017/18.** The ONS measured excess death rate - an indicator which became more familiar once the pandemic struck - recorded a sustained period of high levels of excess deaths over winter 2017/18, including during the period affected by high bed occupancy and the cancellation of routine operations. This followed on from a similar period of excess deaths coinciding with a period of severe flu in 2014/15. Together, these periods of excess deaths exposed the vulnerability of the older frail population - particularly those in care homes and those with dementia - to outbreaks of infectious disease and demanded a policy response.

(12) Access to healthcare remained highly equitable by international standards on the eve of COVID-19, but there were warnings that health insecurity and unmet need for healthcare due to long waiting times were on the rise and concerns that 'hostile environment' policies were undermining universal access to healthcare for some groups.

Access to healthcare remained highly equitable by international standards when the pandemic struck. In early 2020, on the eve of COVID-19, the UK continued to avoid the substantial healthcare protection gaps and catastrophic health costs and health protection risks associated with recessions and unemployment spells that arise in some comparator countries (most notably, the United States). Previously, we reported that the 2007/8 financial crisis and the subsequent economic downturns and recessions resulted in more reliance on out-of-pocket payments for health care in some countries. However, in the UK, the share of out-of-pocket payments in total expenditure on health fell after 1997, and this continued during the period 2007-2010, with a small upturn after 2010 (Vizard &

Obolenskaya, 2015). Our analysis in this report shows that out-of-pocket expenditure on health did grow in the years running up to the pandemic. Nevertheless, when the pandemic struck, reliance on private health insurance remained restricted and the share of out-of-pocket expenditure on health in final household consumption remained very low in the UK by international standards (at 2.6% in 2019).

As noted in section 7, the UK's strong performance in international comparisons of indicators relating to universal coverage and health equity has been reflected in the regular health systems assessments undertaken by the Commonwealth Fund. The last assessment undertaken on 'pure' pre-pandemic data ranked the UK in first overall position out of 10 countries with the UK coming in first position for the equity domain (differences between low and high income) and the care process domain (relating to preventative care measures, safe and coordinated care, and patient engagement) (Commonwealth Fund 2017). Additionally, we identified in this report that based on pre-pandemic (2019) international data, only a very small proportion of the population reported having an unmet need for medical examination or treatment due to financial cost. However, it is important to note that pre-pandemic international comparative data indicated that health insecurity and unmet medical need due to long waiting periods had begun to rise *before* the pandemic struck. Additionally, a more recent Commonwealth Fund assessment based in part on 2020 data (that is, data partly from *after* the pandemic struck) assessed the UK as having moved down in both its overall and health equity rankings (from 1 to 4 in both cases) (Commonwealth Fund 2021).

Moreover, during the five-year period under examination, concerns were also expressed that the new charging regime introduced as part of the 'hostile environment' initiative (aimed at irregular migrants) was resulting in the unravelling of universalism, with the emergence of health protection gaps for undocumented migrants, individuals who have been refused leave to remain and others with insecure immigration status. The 'hostile environment' was also a key factor behind the Windrush scandal which was revealed in 2018 and denial of access to healthcare continues to be an official ground for compensation for those affected.

These developments meant that when the public health crisis hit, unmet need for healthcare had been on the rise due to increasing waiting times and there were growing concerns that the 'hostile environment' was undermining the principle of universal access to free healthcare for

some groups. When COVID struck in early 2020, health protection gaps for individuals with insecure immigration status (and for other key vulnerable groups, such as homeless people) were a key issue concern. NGOs highlighted that No Recourse to Public Fund rules and the charging regime were having a deterrent effect and posed an effective barrier to access to healthcare for those with insecure immigration status as well as a broader public health risk in relation to COVID-19 transmission and infection. Additionally, the application of the Immigration Health Surcharge to frontline health and care workers also received substantial media attention during the first lockdown and an exemption was announced in June 2020.

(13) The proportion of the population reporting bad or very bad general health or conditions had been rising when the pandemic struck while mental ill-health prevalence was higher during the second decade of the 21st century than the first and obesity inequalities had been widening.

The proportion of the population reporting bad or very bad general health, longstanding conditions, disabilities and health problems has been gradually increasing over time and this trend continued during the period under examination. Healthy life expectancy increased for males between 2009-11 and 2016-18 but *declined* for females. Disability-free life expectancy declined for both males and females and the proportion of life spent in good health and disability-free both declined. According to Health Survey for England data, there was a substantial upturn in the percentage of adults at risk of poor mental health over the decade 2006-2016, with increases in psychological distress following the financial crisis (2008-2010) and during the onset of austerity (2010-2012) with a further steep increase to record levels in 2016 before falling back somewhat pre-pandemic in 2018. Mental health inequalities had narrowed since an earlier peak following the financial crisis and subsequent downturn but a sharp socio-economic gradient persisted.

On a positive note, there was progress relating to sugar-sweetened soft drinks which was targeted by the new Soft Drinks Industry Levy, smoking prevalence and inequalities, and a small further decline in population alcohol consumption. In addition, while smoking inequalities remain substantial, there was a narrowing of the socio-economic gap between 2014 and 2019. However, adult obesity prevalence has been on an upward trend since 1993 and further increased by 0.8 percentage points between 2015 and 2018. Moreover, adult obesity *declined* amongst the least deprived decile whilst *increasing* amongst the most

deprived. While overall child obesity rates remained stable, the average figures obscure divergent trends, with declines amongst the least deprived and increases amongst the most deprived in both reception and year 6. Fruit and vegetable consumption amongst children also failed to improve, while experimental statistics published by DWP and international analysis published by the UN Food and Agriculture Organization identified concerning developments in relation to food insecurity. Additionally, in the run up to COVID-19, there was a decline in coverage for routine childhood vaccinations and the UK's measles-free status with WHO (awarded in 2016) was withdrawn in 2019.

(14) Adverse trends in mortality and mortality inequalities pre-dated the coronavirus pandemic, with improvements in mortality slowing down and stalling during the second decade of the 21st century and life expectancy inequalities widening.

The slowdown in improvements across a range of mortality indicators and the widening of inequalities against some longevity and mortality indicators is one of the most striking findings in this report. There were adverse developments in relation to trends in life expectancy, standardised mortality rates, avoidable mortality rates, heart disease deaths, drug poisoning deaths, deaths amongst homeless people, suicides and excess deaths. Life expectancy inequalities had also widened *before* the pandemic struck while the UK's position in international mortality rankings continued to lag behind comparator countries against several key indicators.

- **Improvements across a range of mortality indicators slowed down during the second decade of the 21st century.** Improvements in life expectancy at birth (UK), age-standardised mortality (England and Wales) and avoidable mortality (UK) slowed down and stalled during the second decade of the 21st century. Following more than two decades of substantial reductions in heart disease mortality in England and Wales, there was a notable slowdown in further improvements during the second decade of the 21st century and there were no further improvements in the infant mortality rate in the UK after 2013.
- **Progress in addressing inequalities in mortality from the major killers in England during the second decade of the 21st century was limited.** Gaps in age-standardised under 75s cardiovascular mortality barely changed between 2011 and 2018, although a small narrowing of inequalities was observed in age-

standardised mortality rates for cancer and liver disease. Conversely, the gap for age standardised mortality from respiratory diseases widened. While the avoidable mortality deprivation gap for men in England narrowed slightly between 2014 and 2017, the gap for women widened.

- **There were adverse developments across several other mortality indicators in the years running up to the pandemic.**
 - Drug poisoning deaths and mortality amongst homeless people in England increased.
 - Alcohol deaths remained on an upward trend.
 - Suicides in the UK increased in the wake of the financial crisis and recession, before falling back in 2017. Rates then increased in 2018 and remained high in 2019 on the eve of the pandemic.
 - In England and Wales, there were episodes of sustained excess deaths in 2014/15 and 2017/18, particularly amongst older women.
- **Life expectancy inequalities widened during the second decade of the 21st century, particularly for females.** The stalling of improvements in life expectancy in England during the second decade of the 21st century affected both males and females across deprivation deciles, but was more marked in the most deprived decile, particularly for females, for whom life expectancy declined between 2011-16 and 2016-18. As a result, the female life expectancy gap widened. The gap in local government areas in the UK with the highest and lowest life expectancy also widened for both men and women between 2013-15 and 2016-18.
- **The UK and the UK's position in international mortality tables remained disappointing against some key indicators.** While the UK's ranking on international mortality tables for diseases of the circulatory system was strong, the UK's position in international mortality tables remained disappointing against some other key indicators, including some cancers, respiratory disease mortality, female life expectancy and infant mortality. On the eve of the pandemic, there were indications of the UK slipping further behind the best performers against some indicators.

(15) The distribution of good physical and mental health, and mortality and longevity, remained highly unequal when the pandemic struck –

with sharp disparities by socio-economic deprivation and other characteristics including ethnicity.

Health inequalities remained a major source of social injustice in Britain on the eve of the COVID-19 pandemic. Inequalities by deprivation were reflected across multiple indicators of good physical and mental health, with stark disparities in poor general health and disability, healthy and disability free life expectancy, prevalence of poor mental health, and in the distribution of risk factors such as smoking and obesity. Health inequalities by ethnicity were also apparent across multiple indicators, with major concerns around the disproportionate use of Mental Health Act to detain individuals from Black and ethnic minority groups. Obesity prevalence was higher among Black children and adults, while among the over 65s, average health related quality of life score was particularly low for older people from the White Gypsy/Traveller, Pakistani and Bangladeshi ethnic minority groups.

Stark inequalities by deprivation status were also evident across multiple mortality indicators on the eve of the pandemic, including age-standardised mortality, avoidable mortality, mortality from major killers including cardiovascular, respiratory and liver disease, cancer, suicide and infant mortality. Evidence from the Confidential Inquiry on Maternal Mortality from before the pandemic showed that there remained a five-fold difference in maternal mortality rates amongst women from Black ethnic backgrounds and an almost two-fold difference amongst women from Asian ethnic backgrounds compared to white women, with particular concerns expressed about the impact of charging and immigration status on recent maternal deaths. An expert panel concluded that there was a lack of funding and focus on reducing ethnic and socio-economic disparities in maternal mortality, stillbirth and neonatal deaths after the announcement of the National Safer Maternity Ambition in 2015.

Overall, we conclude that by the end of the five-year period under examination, and on the eve of the COVID-19 pandemic, progress towards service transformation and integrated and person-centred health and care had been uneven and too slow; while the 'bottom up' drive on preventative and public health and health inequalities foreseen in the Coalition's reform programme had not been delivered; and no progress had been made in securing new long-term ring fenced and sustainable health and care funding streams for the 2020s. Moreover, when the pandemic hit, there were multiple indications of a substantial gap between health needs and demand on the one hand and provision on the other, with mounting

evidence of increasing waiting, workforce shortages, extreme winter pressures and eroded resilience to shocks, while health and mortality outcomes were deeply unequal, obesity and mental health prevalence rates had increased, improvements in multiple mortality indicators had stalled, and life expectancy inequalities had been widening. As a result, in early 2020, when the global coronavirus pandemic struck, the extraordinary and unprecedented policy challenges resulting from the public health crisis were superimposed onto an already formidable list of pre-existing policy challenges for the 2020s.

8.2 Policy challenges on the eve of COVID-19

At the beginning of the five-year period under examination, at the time of the May 2015 General Election, fundamental challenges facing the health system were addressed in the Barker Commission and the NHS Forward View plan in 2014. The Barker Commission identified the need to future-proof the health system by delivering a new ring-fenced health and care funding stream that would be adequate to meet rising health needs and demands in the 2020s. The NHS Five Year Forward View addressed the importance of high-quality health and care services that are fully adapted to meet the new and rising health needs and circumstances of the 21st century through service transformation (including integrated health and care services and a greater emphasis on out-of-hospital services) coupled with measures to control the demand side (including a radical upscaling of prevention and reducing inequalities). Both the NHS Five Year Forward View and the Barker Commission responded to the long-term challenges and cost pressures associated with population ageing and increasing longevity with chronic, complex and multiple conditions such as dementia, Alzheimer's and frailty; other rising and different health needs such as mental ill-health, obesity and diabetes; and other drivers of rising costs (including rising costs of medical treatment and other cost pressures driven by technological advances).

However, the analysis in this report shows that during the five-year period under examination, on the eve of the COVID-19 pandemic, only limited progress had been made in future-proofing the health system by addressing these fundamental challenges. Moreover, there was mounting evidence of a substantial misalignment between health needs, demand and supply and of stalling and reversals of progress in reducing health and mortality inequalities. As a result, in early 2020, when the global coronavirus pandemic struck, the extraordinary and unprecedented challenges of dealing with the sudden seismic surge in health needs associated with COVID-19 mortality and morbidity were superimposed on

top of a formidable list of policy challenges from before the pandemic struck. This included:

(1) Delivering a new financial settlement for health fit for the third decade of the 21st century.

On the eve of the pandemic, there was therefore already an urgent need to address the fundamental challenge of delivering a long-term financial settlement which would substantially increase the level and proportion of national resources devoted to health. There had been repeated warnings during the current period that expenditure increases allocated to health had been insufficient to keep up with need and demand and would remain so given projections for population ageing and rising levels of frailty and complex conditions, as well as broader cost pressures associated with rising conditions impacting on children and the working age population such as mental ill-health and obesity and cost push factors associated with medical treatment and technological change. Plans set out on the eve of the pandemic failed to: compensate for a decade of historically low expenditure growth; to increase expenditure in line with population ageing and other cost and demand pressures that will result in rising needs going forward and to fund adequate investment in a radical upscaling of out-of-hospital care, primary and community health services, mental health, public and preventative health strategies and a sustained programme of public action to reduce health inequalities.

(2) Addressing the weakening of the healthcare system and the erosion of healthcare system resilience by addressing the mismatch between healthcare provision and delivering a sustained programme of capital investment.

The weakening of the healthcare system and the erosion of healthcare resilience also required urgent addressing on the eve of the COVID-19. There were multiple warning signs of capacity limitations and a gap between healthcare provision, need and supply on the eve of the pandemic. This required a comprehensive response to the capacity, access and quality challenges that were ongoing when the pandemic hit, including workforce shortages, the build-up of waiting times, rising bed occupancy pressures, extreme winter pressures and lack of resilience in relation to health shocks. On the eve of the pandemic, a workforce plan had not been delivered. Moreover, in order to provide the foundations for a fit for purpose healthcare system in the 21st century, there was an urgent need for the delivery of a sustained capital

investment strategy. Key priorities included tackling the infrastructural maintenance backlog, investment to upgrade and expand access to medical equipment such as diagnostic scanners and modernisation of service provision through substantial IT upgrades and digital delivery.

(3) Delivering on stated policy aims: integrated and person-centred care, out-of-hospital care, the preventative agenda and mental health.

Integrated and person-centred care, the upscaling of out-of-hospital care and prevention, and parity of esteem for mental health, were all recognised as key policy aims in the NHS Five Year Forward View in 2014. However, these policy aims were not fully delivered between May 2015 and early 2020. Progress towards integrated health and care, the upscaling of out-of-hospital services and the implementation of the preventative agenda had been too slow on the eve of the pandemic, the health system remained fragmented - with continued divides between healthcare and public and preventative health; primary, community and secondary care; physical and mental health; and health and social care. By early 2020, there was a consensus that rules around competition and procurement needed changing to eliminate barriers to integrated care. Delivering parity of esteem between physical and mental health also remained a major challenge in early 2020. Notwithstanding important policy developments and reviews, demand for mental health services was continuing to outpace increases in funding and provision. Substandard mental health services remained a key concern highlighted in CQC inspections in 2019. The delivery of the quality agenda and improvements in patient experience following the Francis Review (2013) had also only been partially achieved, with continued instances of quality variations and substandard care. There were also some indications that improvements in patient experience had not been sustained and substantial inequalities in patient experience by deprivation and ethnicity against multiple indicators.

(4) Delivering on stated policy aims: delivering the major 'bottom up' drive on public health, preventative health and health inequalities foreseen in the Coalition's health reforms.

The Coalition's reform programme introduced before the May 2015 General Election had put central emphasis on a major drive on public health, preventative health and health inequalities through the devolution of public health arrangements to local government. However, this vision had not been delivered by the eve of the COVID-

19 pandemic. On the eve of the COVID-19 pandemic, there was already an urgent need to address this policy failure through a substantial ratcheting up of funding for public and preventative health and a more effective integrated and co-ordinated approach to local, regional and central government action combining health interventions and a wide range of broader systemic regulatory and fiscal measures.

(5) Implementing the NHS Longterm Plan (2019) and the Public Health England Strategy 2020-25.

The NHS Longterm Plan (2019) set out ambitions for the upcoming period relating to integrated care, to expand primary care and preventative health, to parity of esteem for mental health and to better address dementia and Alzheimer's disease. Some of these ambitions (such as integrated care) reflected the failure to make greater progress and to meet the ambitions set out in the Five Year Forward View plan that was published in 2014 but were not fully implemented by early 2019 (including, for example, ambitions related to integrated care). Public Health England's strategy for 2020-2025 set out a national agenda for the period 2020-25 relating to obesity, smoking, diet, clean air, mental health as well as in relation to vaccination rates and infectious diseases (Public Health England 2019). Challenges on the eve of the COVID-19 included adequately funding and delivering the policy aims set out in these documents.

(6) Addressing Brexit related challenges.

On the eve of COVID-19, post-Brexit transitional arrangements were just coming into force. There were concerns about Brexit related shortages of medicines and medical products and workforce impacts, which a new NHS Visa was intended to head off. Additionally, while the 2019 Conservative Party Manifesto stated that the NHS is "off the table", concerns were articulated that future trade deals might have adverse consequences for the NHS and pharmaceuticals. The legal protection provided by the codified fundamental right to health (included in the EU Fundamental Charter of Rights), which was important in providing legally enforceable public health exceptions to international trade rules during the five-year period examined in this report, also ceased to have effect after the transition period.

(7) Undertaking a programme of public action to reverse the adverse mortality trends recorded in the 2010s, including by taking comprehensive public action to address widening mortality inequalities and episodes of high excess deaths.

On the eve of the pandemic, a major programme of public action was already urgently required to address the overall slowdown in life expectancy improvements and to arrest and reverse the widening of life expectancy inequalities. A focused drive on health inequalities could make a substantial contribution by reducing high rates of cardiac and respiratory related mortality in deprived areas and by 'levelling up' rates in those areas to those achieved in the least deprived areas. In addition, new policy measures were required to address the vulnerability of the 'oldest of the old' including the frail older population and those with Alzheimer's and dementia from infectious diseases, even prior to COVID-19. Whereas there had been a widespread assumption that *chronic* rather than *infectious* diseases are the key challenge of the 21st century, the two episodes of high winter excess deaths prior to the COVID-19 pandemic were arguably a warning sign of the vulnerability of the frail older population (including the older care home population) to infectious diseases. Additionally, increasing mortality associated with alcohol, drug poisoning, homelessness and suicide all required urgent public policy action.

(8) Putting into place a major and comprehensive programme of public action to address population ageing, including implementation of the WHO healthy ageing agenda.

Internationally, the challenge of population ageing is resulting in an increasing proportion of life spent in ill-health with long-term conditions and disabilities, including rising prevalence of Alzheimer's and dementia. This phenomenon is increasing cost and demand pressures on health and social care systems. The WHO healthy ageing agenda sets out a comprehensive public policy response to the phenomenon of population ageing, including the delivery of integrated and older-person focused health and care by 2030 and the delivery of a much broader set of societal measures (for example, supportive transport systems

and housing and measures to support unpaid carers) that support health, wellbeing and broader capabilities in older age.

(9) Putting into place a major and comprehensive programme of public action to reduce health inequalities.

A key challenge on the eve of the pandemic related to the need for a major and focussed drive to address health inequalities, including implementation of the recommendations in the Marmot '10 years on' review. The latter highlighted the need for a comprehensive programme of public action including a national public health strategy and official health inequalities targets, with requirements for proportionately greater improvements in health inequalities in deprived deciles and the North of England. Other recommendations included: strengthening the deprivation component of funding formulae (especially strengthening of the Revenue Support Grant to local authorities and NHS Resource allocation formulae to better reflect social need); implementation of 'proportionate universalism'; reversing austerity; and implementing the 'social determinants' approach by addressing the broader underlying socio-economic drivers of health inequalities, including living standards, social security, quality of employment, housing, child poverty and austerity.

(10) Strengthening the overall system of political and legal accountability for health.

On the eve of the COVID-19 pandemic, the arrangements that were in place for overall political accountability and responsibility for improving health outcomes and reducing health inequalities also required strengthening. The Health and Care Act 2012 created a new duty of autonomy or operational independence, removing political responsibility and accountability for the everyday running of the NHS, while removing the Secretary of State's duty to 'provide' health services, and introducing new statutory duties to promote physical and mental health and to reduce health inequalities. However, this system proved to be inadequate and in order to galvanise public action, the Marmot '10 years on' review proposed the re-introduction of a system of national targets for improving health outcomes and reducing health inequalities. Arguably, new targets of this type should be embedded in

legislation as enforceable statutory duties on governments to improve health outcomes and reduce health inequalities over defined periods of time. Some proposals have also highlighted the need for stronger legislative duties or codifying a fundamental right to health in domestic law to strengthen legal protection and overall accountability for universal health access and improving health outcomes and reducing health inequalities in the future. Moreover, some proposals go even further in calling for constitutional recognition of the right to health as part of a new generation of social rights and a broader social contract for the third decade of the 21st century.

8.1 Final observations

At the time of finalising this research report, in Spring 2023, official estimates of the cumulative global COVID-19 death-toll stand at seven million but WHO has suggested that there have been as many as 20 million deaths worldwide. In the UK, by the end of March 2023, there had been more than 220,000 deaths where COVID-19 is mentioned on the death certificate as one of the causes of death. The effects of the pandemic were reflected with declines in overall life expectancy in England (with declines in the three-year average data for 2018-2020 compared to 2017-2019 for both males and females) and further widening of life expectancy inequalities by IMD (ONS 2023c 2022ab). The pandemic did not impact equally and further intensified the patterns and trends in mortality inequalities identified in this report. ONS data on age standardised death rates per 100,000 due to COVID-19 (that is, where COVID-19 is recorded as the underlying / main cause of death on official death certificates) between March 2020 and April 2021 identify that rates were highest amongst the over 50s, with highest prevalence rates amongst those over 80. Looking at breakdowns by area deprivation, rates ranged from 264.6 in the most deprived quintile to 140.4 in the least deprived quintile. By geographical area, the highest rates recorded in London for both males and females, followed by the North West and West Midlands for males and the North West and North East for females (ONS 2023a). Between September 2020 and 31 August 2021, laboratory confirmed COVID-19 mortality rate per 100,000 of the population were 4.9 for the White group, 16.8 for the Black/Black British group, 6.9 for the Mixed group and 13.4 for the Asian/Asian British group (records deaths within 60 days of a positive

COVID-19 test or where COVID-19 is mentioned on the death certificate) (ONS 2023b).

While the emergency phase of the pandemic is now over, waiting lists for hospital treatment continued to rise during 2022 reaching seven million in England alone (Autumn 2022). NHS England's three-year recovery plan for elective and cancer care was agreed with the Government in February 2022 and included new surgical hubs, community diagnostic centres and GP management. Milestones were met in July 2022 and there were signs that progress had been made in terms of very long waits during 2022. However in February 2023, the Public Accounts Committee concluded that delivery of the recovery plan was already falling short of expectations (Public Accounts Committee 2023). Moreover, the health system again faced seismic pressures over the winter of 2022/23 with excess deaths over winter running high for several weeks; general and acute overnight occupancy rates rising back up to their 2017/18 levels; and delayed discharges running at particularly high levels, in turn resulting from limited capacity in adult social care, including workforce shortages, bed shortages and inadequate home care capacity. With hospital exit blocking resulting from delayed charges, extreme (12 hour plus) waits in A&E (including corridor and trolley waits), ambulance transfer delays and exceptionally long waits for ambulances also built up. One recent study by the Royal College of Emergency Medicine reported that 1.65 million people experienced very long 12 hour plus waits in emergency departments during 2022 and that long waits were potentially associated with 23,000 excess deaths during the course of 2022 (RCES 2023; c.f. Jones et al 2022; RCES 2021) while media reports highlighted fatalities associated with long ambulance waits. With NHS vacancies up compared to before the pandemic, an inflationary surge eroding the real value of health workforce wages and budgets, an ongoing wave of industrial action, and with indications that self-pay and private healthcare are on the rise, at the time of writing, there are currently fears that the NHS has reached a tipping point, with the future of the guarantees that it provides now in serious doubt.

The analysis in this report underlines that in understanding the state of health both on the eve of COVID-19 and at the current time, it is critical to look back at the state of the health system *before* the COVID-19 public health crisis struck. Overall, the evidence we present suggests that the health system was substantially weakened during the second decade of the 21st century, with indications of a mismatch between health needs, demand and supply, and an erosion of healthcare system resilience in the run up to COVID-19. Multiple pressures on the healthcare system continued

to mount up after the May 2015 General Election and when the pandemic struck, there had been a failure to deliver the major 'bottom-up' drive on public and preventative health and health inequalities that had been foreseen in the Coalition's health reforms. Additionally, only limited progress had been made towards integrated health and care – as was tragically exposed when the pandemic struck. While spending had begun to increase again prior to the pandemic, the break with the period of rapid and sustained supply expansion in the first decade of the 21st century continued, and there were clear indications of a mismatch between healthcare capacity and healthcare need. There were almost 4.5m people on waiting lists for hospital treatment in England before the pandemic struck, while NHS vacancies were running at high levels, bed occupancy pressures were on a rising trajectory and there were regular warnings about winter pressures. Health inequalities were a major source of social injustice on the eve of the pandemic. Improvements in mortality outcomes had slowed down across multiple indicators on the eve of COVID-19 pandemic, and life expectancy inequalities had widened, while episodes of high excess deaths in 2014/15 and 2017/18 had exposed the vulnerability of the 'oldest of the old' to infectious diseases within an ageing society.

As noted above, spending per capital on health immediately prior to the pandemic was lower in the UK than in some comparator countries such as Germany, with the UK also recording fewer doctors and nurses and fewer hospital beds per head. In response to the pandemic, total (public and private) spending on health as a share of GDP rose from 9.9% in 2019 on the eve of the pandemic to 12% of GDP in 2020, taking the UK to fifth in OECD rankings of health spending as a share of GDP. In current prices, total spending on health per capita in the UK increased from US\$(PPP) 4385.5 in 2019 on the eve of the pandemic to US\$(PPP) 5018.7 in 2020 and US\$(PPP) 5387.2 in 2021 (current prices). This was a substantial 23% increase in per capita spend in response to the public health emergency. However, much of the additional spending was ring-fenced for the additional needs and demands directly associated with the COVID-19 public health crisis, rather than being a permanent sustainable source of funding to address the long-term policy challenges that pre-dated the pandemic. Moreover, by way of comparison, rates in Germany increased from US\$(PPP)6407.9 in 2019 to US\$(PPP)7382.6 in 2021 (a 15% increase) and therefore remained above levels in the UK in the wake of the COVID-19 crisis (OECD 2023).

In terms of the progress in addressing the underlying long-term policy challenges and delivery of a new ring-fenced sustainable source of funding for health and care to meet needs and demand in the third decade of the 21st century, it has been a question of one step forward and one step backwards since the pandemic struck. The pandemic itself moved the importance of a new financial settlement for health and care up the political agenda and there were high hopes in the wake of the pandemic of a radical new Beveridge plan for the 2020s, including a radical new financial settlement for health and care. While the 2019 Conservative Party manifesto had ruled out tax and national insurance rises, post-pandemic, proposals to create a long-term ring-fenced funding stream to finance a cap on adult social care costs though a rise in national insurance contributions were put into place, and this funding stream was also envisaged as providing additional funding for health in the first instance. However, the national insurance rise, proposed under then Prime Minister Boris Johnson, was cancelled following the transition to the short-lived Government led by then Prime Minister Liz Truss and subsequently to the Rishi Sunak led Government during summer and Autumn 2022.

More broadly, new preventative and public health arrangements were put into place in the wake of the pandemic and measures to promote integrated care which were delayed by the pandemic were included in the 2022 Health and Care Act. This altered critical elements of the Coalition's reforms by removing legislative barriers to integration and reducing the role of competition within healthcare provision. Additionally, the Act also put integrated care systems onto a statutory footing from July 2022 and altered arrangements for autonomy and independence by bolstering the powers of the Secretary State for Health to intervene in every-day running of the NHS. On a positive note, in response to the health inequalities revealed and resulting from COVID-19, the Government also established the Cabinet Office Health Improvement and Disparities Office and announced its intention to introduce a Health Disparities White Paper. The Government's inequalities strategy for the 2020s set out in the Levelling Up White Paper (2022) also put central emphasis on health inequalities including healthy life expectancy and obesity, highlighting the importance of addressing health and health inequalities as part of an overall national inequalities, productivity and growth strategy, and referring to the Health Disparities White Paper as being critical for the delivery of 'Levelling Up'. In terms of a delivery plan, Secretary of State Michal Gove's statements referred to a

new strategy to tackle the root causes of health disparities and the recommendations set out in the Henry Dimbelby Food Review. However, at the time of writing, anti-obesity measures have been further delayed in the wake of the cost-of-living crisis, with Dimbelby resigning as Food Tsar in March 2023. Moreover, in January it was announced that the much referred to (and much awaited) Health Disparities White Paper will no longer be published and that a Major Conditions Strategy is now being taken forward instead (UK Parliament 2023).

Looking forward, it is critical that a comprehensive new cross-governmental health inequalities strategy is immediately put into place as a basis for addressing health prevention and inequalities in the 2020s alongside the much awaited and many times deferred workforce plan. In the short-term, immediate measures are required to ensure that COVID-19 recovery plans are delivered and that workforce and capacity pressures in general practice, community and mental health services, adult social care, as well secondary and emergency service pressures, are addressed. In the medium term, future proofing the NHS by addressing the twin challenges of service transformation and the creation of a sustainable health and care funding stream that can align health provision with need and demand in the 2020s is also essential. One lesson from the five-year period under examination is that the delivery of service transformation requires is unlikely to be successful when overall health funding is failing to keep pace with need and demand. Moreover, one lesson from the pandemic is that the expansion of out-of-hospital care and mental health services cannot be at the expense of emergency and hospital care, as in the future, infectious diseases, as well as chronic conditions, will generate new needs and demands on health systems in the context of an ageing population. Given the scale of the policy challenges ahead, as well as the interconnections between improving health and mortality outcomes and tackling broader social inequalities going forward, these fundamental challenges may need to be addressed as part of a comprehensive new social settlement for the third decade of the 21st century.

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