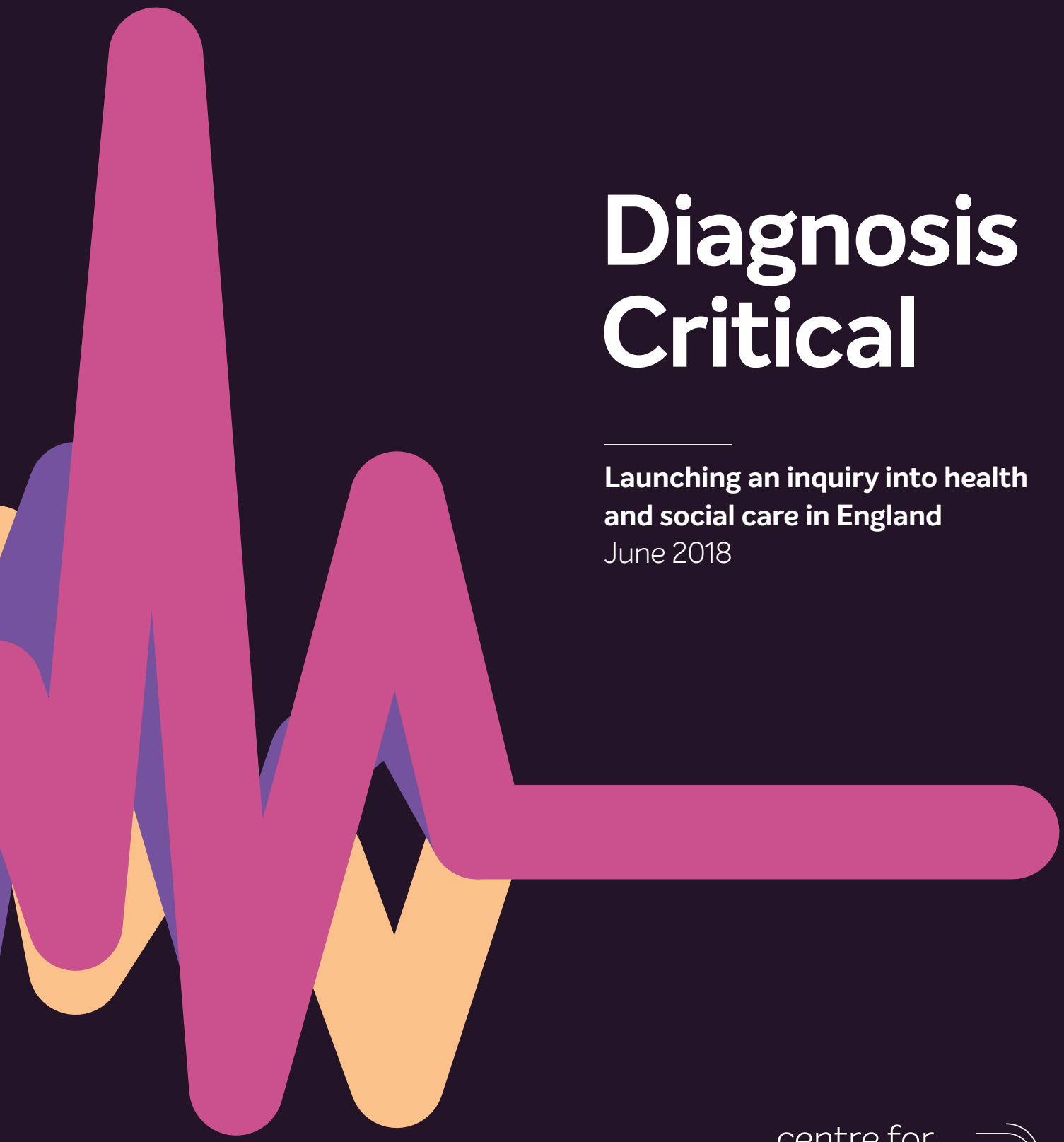


Diagnosis Critical

Launching an inquiry into health and social care in England

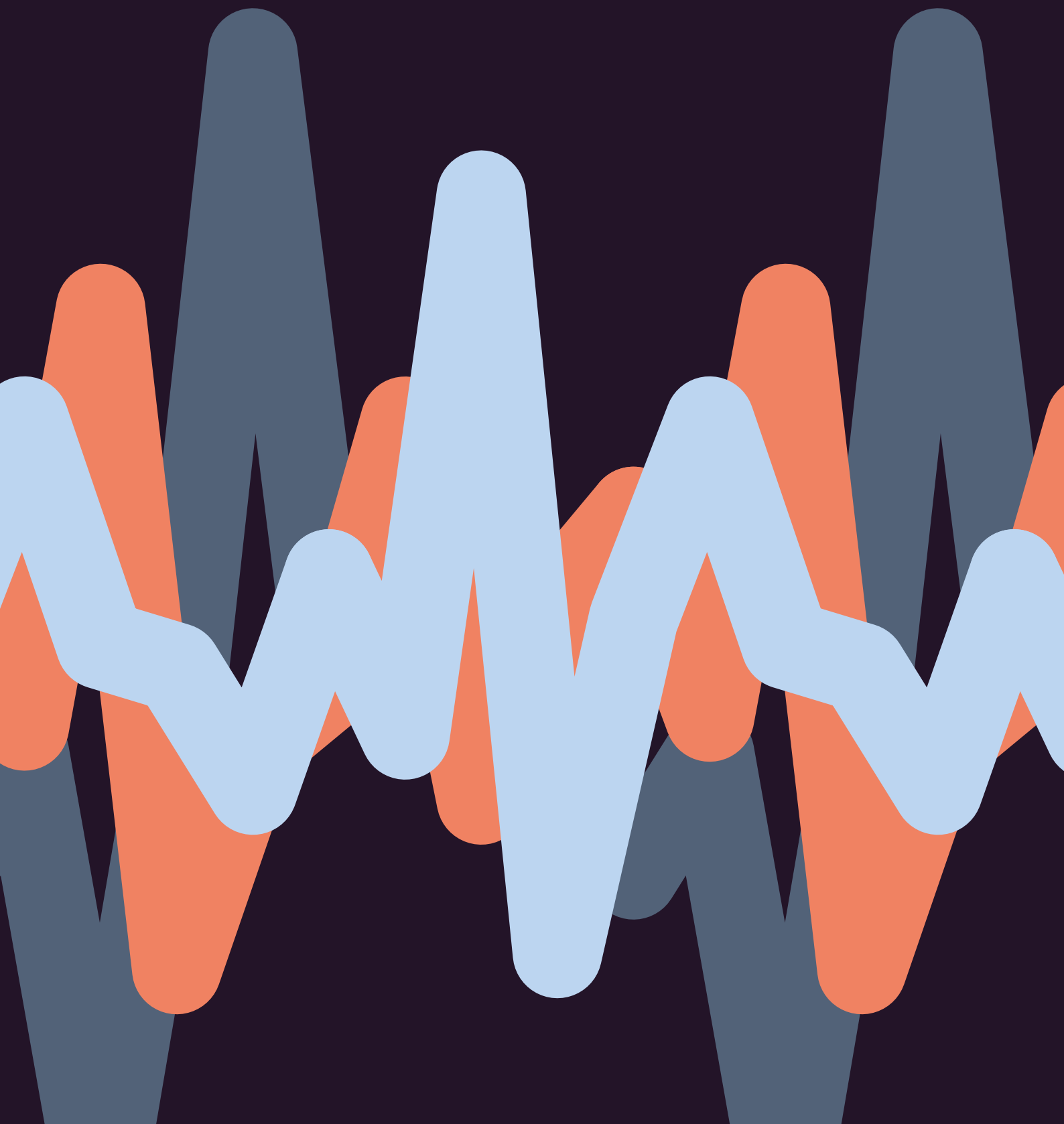
June 2018

centre for **progressive policy**

This paper sets out the challenges facing health and social care provision in England to raise the ambition of the current policy and funding debate. Whilst many recognise the degree of financial pressures on the system, the Centre for Progressive Policy (CPP) argues that we need to do more than plug a short-term funding gap. We need to rethink the design, delivery and financing arrangements of the NHS and social care to meet the needs of our changing population. Anything short of a system overhaul will result in a continued decline in the quality of care.

This document marks the start of CPP's 12-month programme of data-led research and deliberative public and professional engagement. Guided by an authoritative group of clinical and non-clinical advisors, we will consider all options needed to create a truly sustainable, high quality system of health and social care for the future. As the NHS celebrates its 70th anniversary this year, CPP will examine how we can ensure it lasts at least another seven decades as the central pillar of our welfare state.

Executive summary



A new deal for health and social care

Over the next 12 months – as we head into life beyond Brexit, a new legislative Parliamentary term and the next Spending Review period – the Centre for Progressive Policy (CPP) will embark on an ambitious programme of research and engagement on the future of health and social care in England. Guided by an authoritative group of clinical and non-clinical professional advisors (Chapter 5) this programme will include first-rate data analysis with a team of health economists, a series of public deliberation events and an exploration of a range of politically palatable and more radical policy options.

17%

Percentage of the population of England who reside in 'Risk Zones'

6%

Percentage of the population of England who reside in 'Crunch Zones'

Reporting in May 2019 with a primary recommended policy option and costed outline transition plan, our aim is to reclaim the NHS' pioneering origins and facilitate a broad-based discussion on a new social contract for health and social care. Our new and independent analysis has identified two stark population inequalities which powerfully show why this work is needed:

1 **17% of the population in England reside in 32 'Risk Zones':** These are local authorities that are home to both below-average health outcomes *and* deficit-running NHS trusts. We have found that age-standardised mortality rates for causes considered avoidable, amenable and preventable are 29% higher than in other local authority areas.
2 **6% of the population reside in 13 'Crunch Zones':** These are local authorities which have an elderly population weighing on an underfunded care sector, in turn compounding financial pressures on NHS trusts.

> The places where people live contributes significantly to years of potential life lost, propensity to mood and anxiety disorders and unplanned admissions to hospital

We have also identified some alarming trends that the current financial pressures have put on health and care services:

- Even if a trust were to improve its financial position by 10 percentage points the standards for elective care would still not be met, although this would make them more likely to hit A&E and cancer treatment targets.
- If the average trust were to experience another 1,000 delayed transfers of care (DTOCs) on top its annual average of 1,680, its financial position could be expected to deteriorate by 25%.
- The places where people live can account for large shares of years of potential life lost (47%), propensity to mood and anxiety disorders (37%), and unplanned admissions to hospital (61%).

Our initial research has identified four key questions that we have explored in order to set the scope for our programme of work:

1

Is financial strain affecting constitutional standards of care?

Most NHS trusts are now running deficits with a negative effect on patient safety and on standards of cancer treatment, accident and emergency attendance, and elective care (Chapter 1). But throwing more money at the NHS will not solve the problem. Neither will cutting costs or rationing, which cannot give universal access through an unsuitable and unsustainable health care system. We explore the extent to which there is a relationship with funding and quality of care.

2

What kind of system is needed to meet the needs of a changing population?

Neither hospitals nor social care settings are adequately set up to care for an ageing population (Chapter 2). The current policy response is to integrate the two services, but CPP analysis shows that social care is placing additional strain on the NHS instead of relieving its pressure as it is also underfunded. Public expenditure on social care has declined by 8% since 2010 as central government cut local authority funding, saving it pennies locally but costing it pounds through the NHS. Local-authority fees for social care are on average 10% below the cost of provision.

3

What role for place in enabling healthy lives?

Social conditions, which account for up to 61% of a population's health, also vary locally in a way that is not matched by variation in the provision of health care. This has created a number of 'Risk Zones' (Chapter 3) – localities where residents are hit first by a social environment that causes illness and then by a care system unable to cope with their illness. Avoidable deaths are 29% higher in Risk Zones than other localities.

Social care is also highly fragmented locally both in terms of providers and funding, which does not always reflect local conditions. (Chapter 3). This has created a number of 'Crunch Zones' – localities whose populations are ageing faster than average and placing a greater than average strain on care systems.

4

How do we need to rethink health and social care funding models?

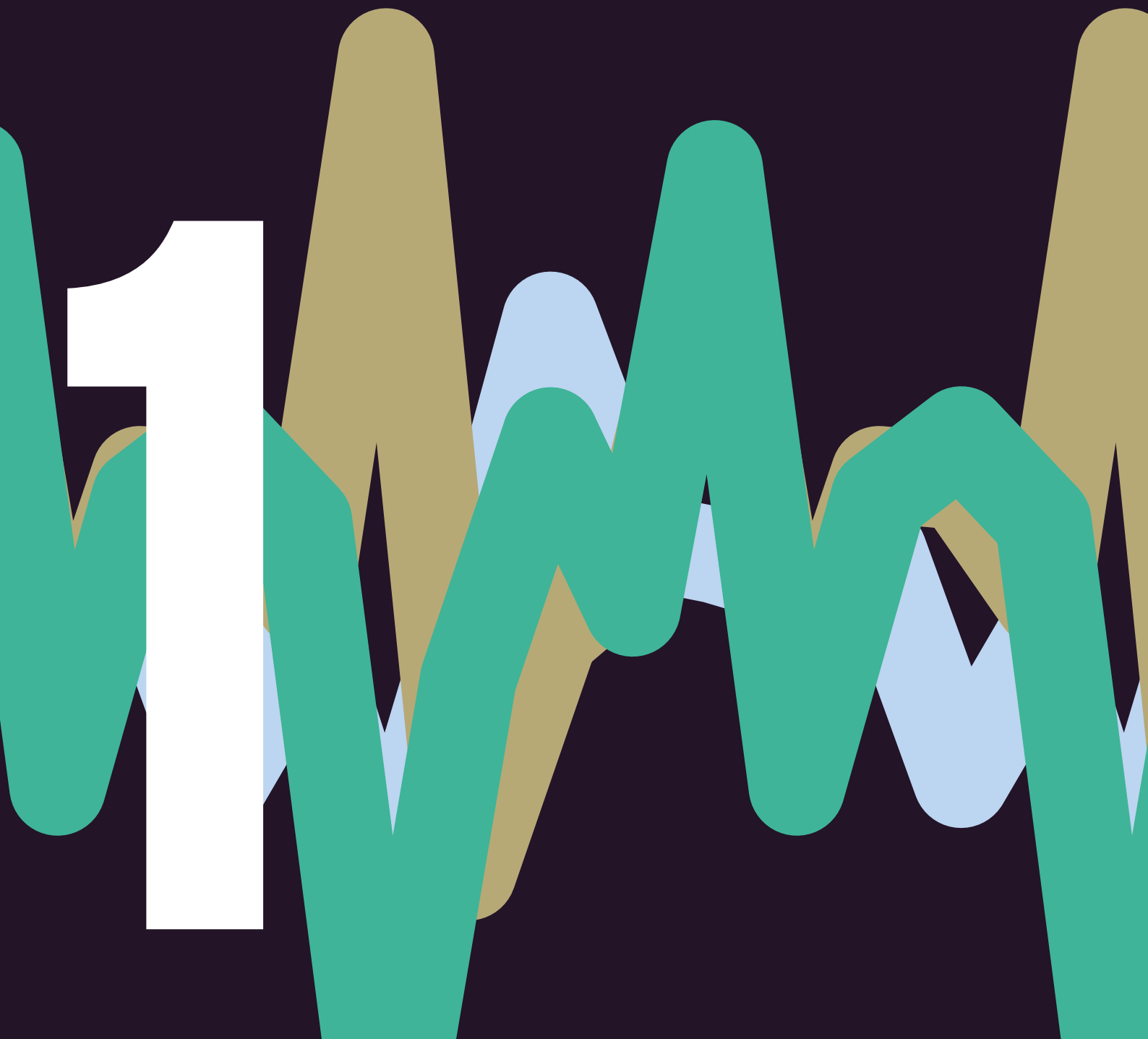
Without root and branch reform, which will also require resources, CPP analysis shows that with the current set up of health care and social care the annual funding shortfall will cumulate to £241bn by 2048/49 under central assumptions of ageing, income growth, and medical costs (fig. 12, Chapter 4). Closing the shortfall would require unseen rises in existing taxes – a nine-percentage point increase in the basic rate of income tax, for example. Alternative options, ranging from hypothecation to rationing, insurance, and technology, need to be assessed through public and professional deliberation.

To reorder funding priorities to match health's social and demographic drivers, we must change the way we think about health more generally – from acute crisis and response, to the management of population health and the longer-term promotion of wellness that is grounded in wider, often place-based economic and social interventions.

The NHS was one of the world's first three national universal health care systems.[1] It ranks highly on international measures of efficiency. But, creaking towards its 70th anniversary this year, the NHS is struggling to keep up that pioneering spirit when it is most needed. Partly because we hold the NHS so dear, and partly because every other day it is said to be in crisis, we forget that it is a radical, pioneering institution. It is with this radical ambition in mind that we will approach our programme of work.

1 The Soviet Union established a public central health care system in 1920, although it did not cover rural residents. New Zealand created one in several steps from 1939–41. The state of Queensland in Australia created one in the 1940s.

Is financial strain affecting constitutional standards of care?



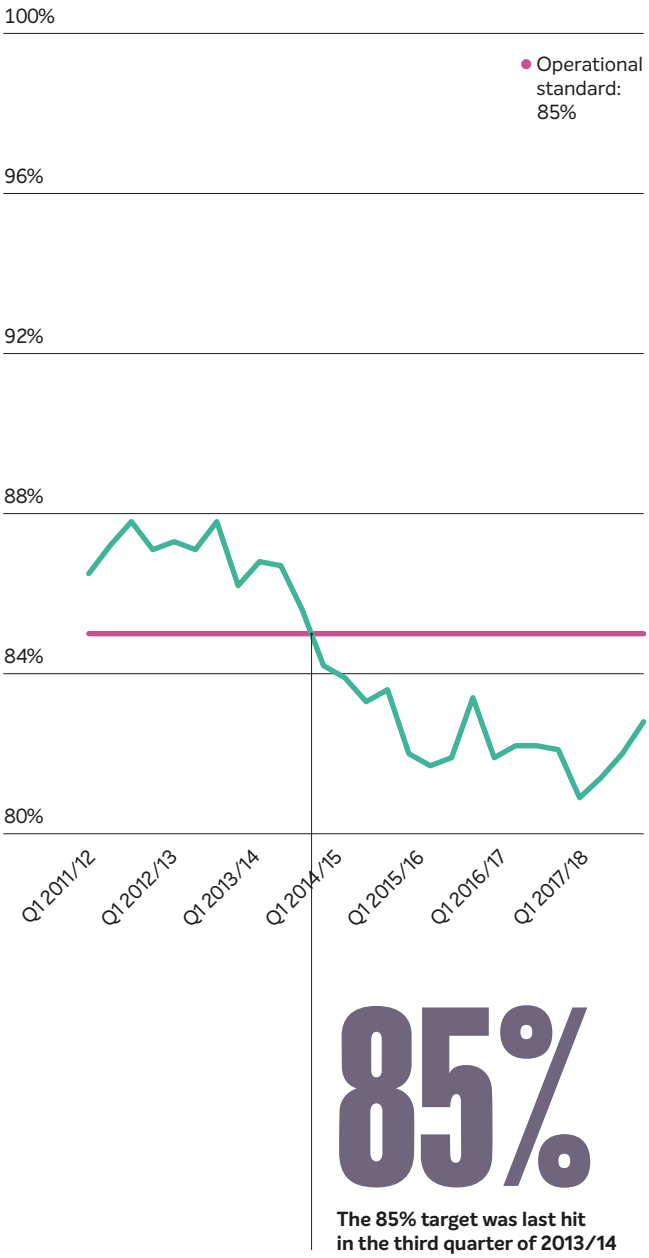
NHS England has some of the toughest performance standards of all health services globally.[2] The NHS Constitution for England sets out three core standards for A&E waiting times, referral times for elective treatment and cancer services treatment times.[3] The Constitution also sets out patients' right to safe care. The commitment to high quality care is something to celebrate, but these standards – in terms of safety, effectiveness and patient experience – are now under threat. Our analysis shows that many of the committed targets (which NHS England refers to as 'operational standards') have not been met for some time and that financial pressure is one of the underlying causes of these lapses in standards.

> "[O]n the current funding outlook, the NHS waiting list will grow to five million people by 2021. That's an extra million people on the waiting list. One in ten of us waiting for an operation. The highest number ever... this would mean the government having to publicly, legally abolish patients' national waiting times guarantees."
>
> Simon Stevens, Chief Executive, NHS England (8 November 2017)[4]

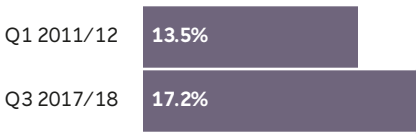
Cancer treatment waiting time standard has not been met since 2013/14

The government pledges that at least 85% of all cancer patients will receive first treatment within two months (62 days) from urgent referral for suspected cancer. The proportion of patients waiting longer than two months to start cancer treatment following urgent referral has increased over time (fig. 1). In the first quarter of 2011/12, 13.5% patients waited longer than two months to start treatment compared to 17.2% in the third quarter of 2017/18, the most recent data point. The 85% target was last hit in the third quarter of 2013/14.

Fig. 1: Two month (62 days) wait from GP urgent referral to a first treatment for cancer



In the first quarter of 2011/12, 13.5% patients waited longer than two months to start treatment compared to 17.2% in the third quarter of 2017/18



2 Monitor (2014) *International comparisons of selected service lines in seven health systems, Annex 5.* Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/382847/Annex_5_AandE.pdf

3 Department of Health (2015) *The Handbook to the NHS Constitution for England, 27 July 2015.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/474450/NHS_Constitution_Handbook_v2.pdf. See also: Department of Health (2018) *The Government's revised mandate to NHS England for 2017–18.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692140/NHSE_Mandate__2017-18_revised.pdf

4 Stevens, Simon, CEO, NHS England – Speech to NHS Providers, Birmingham, November 8, 2017.

A&E waiting time standard has not been met since July 2015

The government pledges that at least 95% of people attending A&E will be seen in under four hours. The percentage of patients attending A&E and being seen to in four hours or less has dropped significantly over the past seven years (fig. 2). In January 2011, only 4.2% of patients were not seen to within four hours. By January 2018, the proportion increased to 14.7%. The target of 95% of all patients seen to within four hours was last hit in July 2015.

95%

The government pledges that at least 95% of people attending A&E will be seen in under four hours

Referral to treatment waiting time standard has not been met since February 2016

The government pledges that at least 92% of patients on non-emergency pathways will wait no more than 18 weeks from referral to treatment for physical health conditions. In March 2010, the NHS Constitution set out a new right for patients to start treatment within a maximum of 18 weeks of GP referral. This move saw the percentage of patients who have begun treatment within a maximum of 18 weeks of referral rise sharply throughout 2011 and up to 2012, when it became a statutory requirement that at least 92% of people should have a referral to treatment time of less than 18 weeks. Since that point, however, the rate has been in precipitous decline (fig. 3). In January 2012, 94.5% of patients were referred within 18 weeks; 2.5 percentage points above the target of 92%. In January 2018, the percentage dropped to 88.2%. Performance has been on a structural downward trend since the start of 2013 and the 92% target has not been hit since February 2016.

Fig. 2: Percentage of A&E attendances in 4 hours or less (all types)

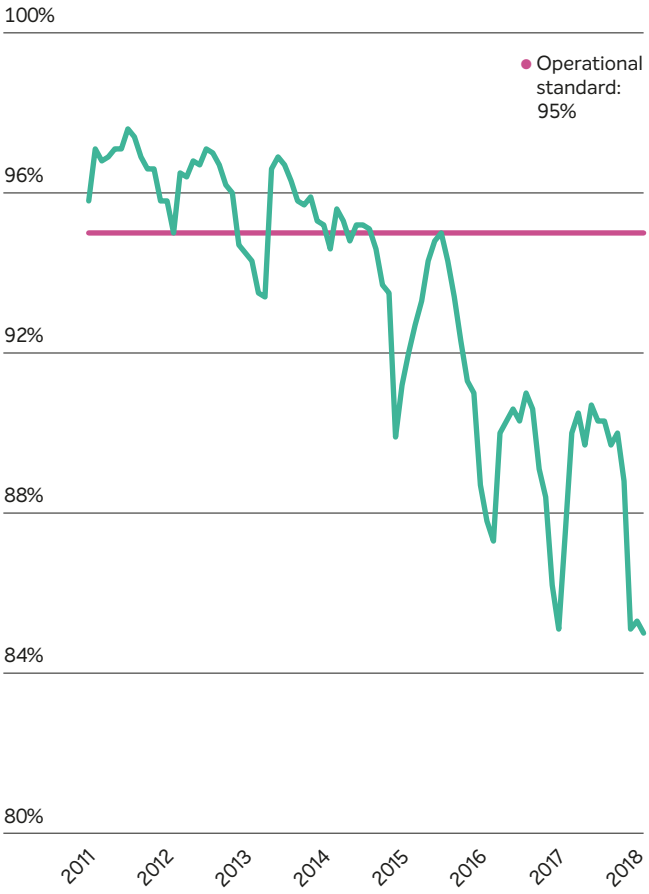
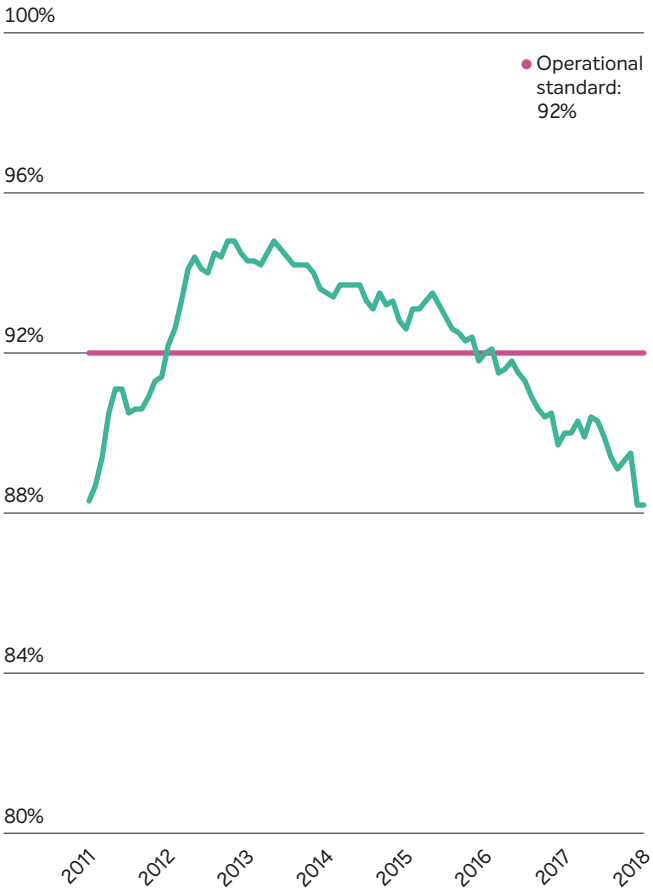


Fig. 3: Referral to treatment (RTT) waiting times (incomplete pathways, % within 18 weeks)



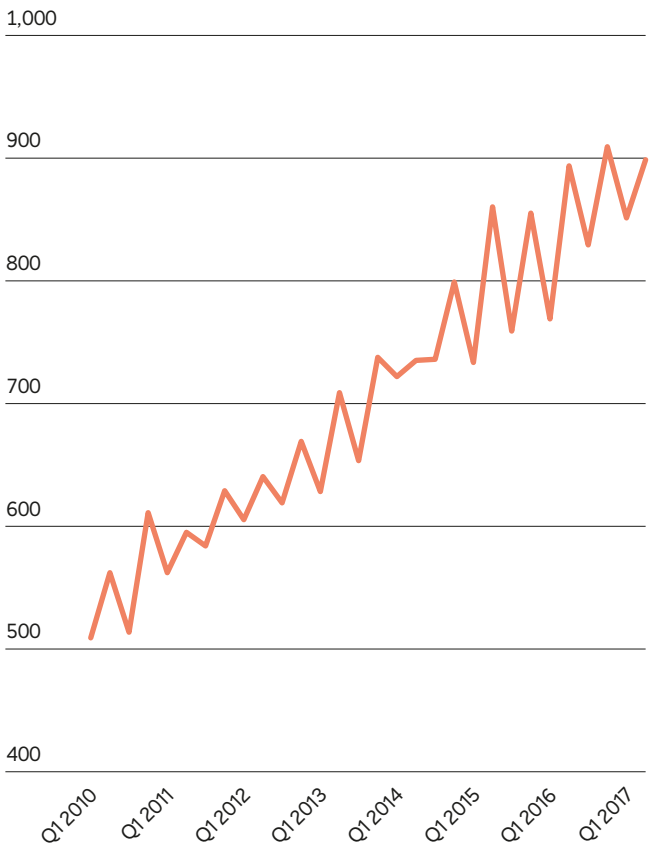
Patient safety may be deteriorating

Patient safety incidents are increasing.[5] Safety incidents in England's NHS trusts went from 509 per 100,000 population in the first quarter of 2010 to 898 per 100,000 population in the second quarter of 2017 (fig. 4). Much of this may be explained by a more open culture of reporting incidents, but this needs to continue to be monitored to ensure that financial pressures are not leading to a compromise in patient care. As we show below, there is a relationship between rises in reporting and deteriorating finances.

> "We are now at the point when we cannot deliver the NHS constitutional standard, without a long-term funding settlement. The NHS simply no longer has the capacity to deal with the demand that it is currently facing."
>
> Chris Hopson, Chief Executive, NHS Providers (11 January 2018)[6]

Across data from all 266 NHS trusts and NHS foundation trusts at each year from 2012/13 to 2015/16,[7] we see a strong tendency for a trust's performance in the three core standards to weaken as its financial position worsens.[8] The result holds even after controlling for varying levels of A&E admissions by trust, which are correlated with patient safety incidents.[9] The result also holds after controlling for varying levels of safety reporting openness by trust, which are correlated with the reporting of patient safety incidents.[10] In the last six years the percentage of trusts in deficit increases from 10% in 2012/13 to 60% of trusts in 2015/16.

Fig. 4: Patient safety incidents are increasing across English NHS trusts



5 Patient safety incidents are classified by a range of categories, ranging from incidents with equipment, treatments and procedures, to infection control and incidents related to the behaviour of staff and patients. See NHS Improvements (2016) *National Reporting and Learning System, NRLS Quarterly Data Workbook up to September 2015, by incident type.* Available at: http://www.nrls.npsa.nhs.uk/EasySiteWeb/getresource.axd?AssetID=135594&type=full&servicetype=Attachment

6 Hopson, Chris, Chief Executive, NHS Providers – interview given to BBC Radio 4, *Today Programme*, 11 January 2018.

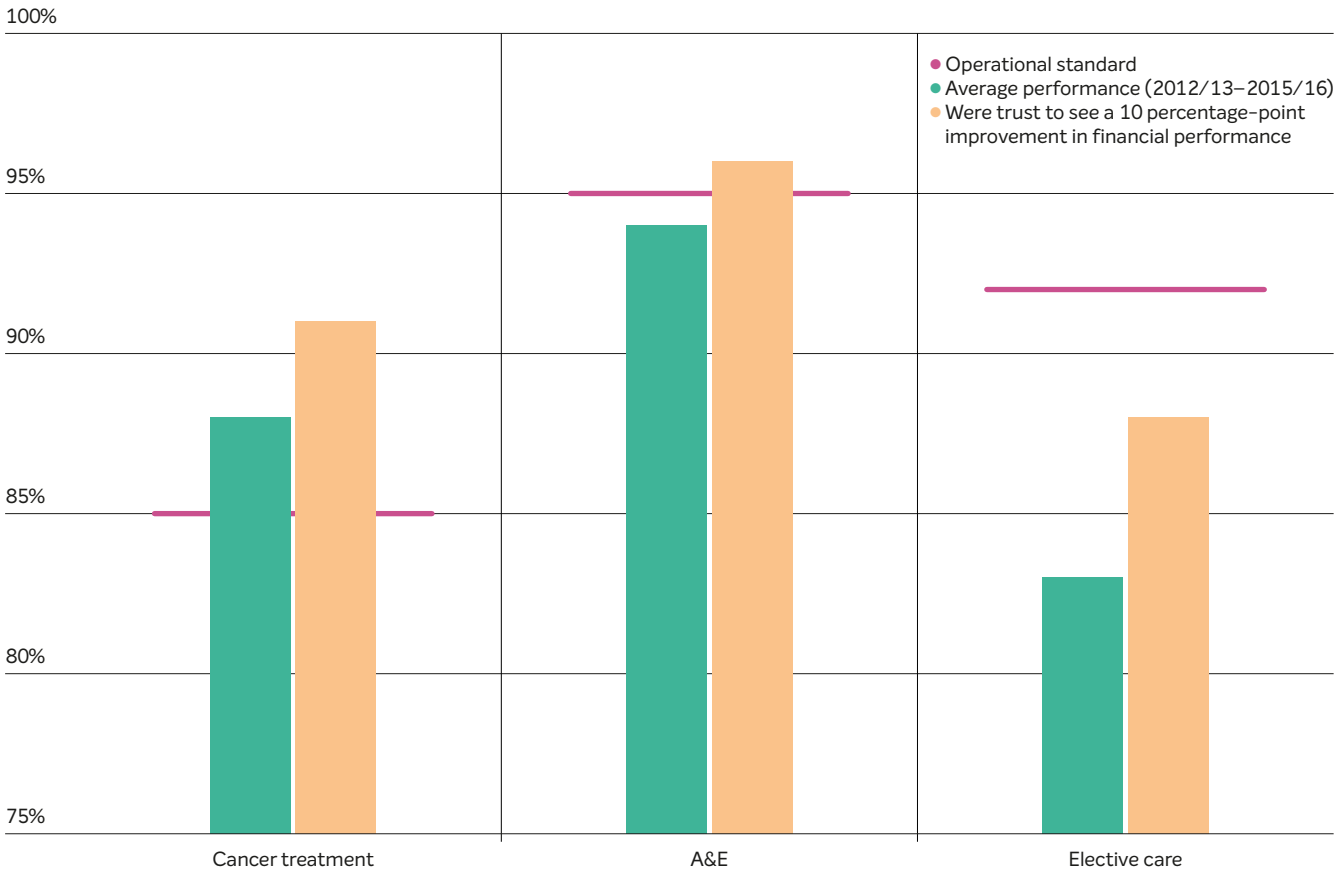
7 This figure includes all acute and community trusts plus mental health and ambulance trusts. According to NHS Confederation, as of 14/07/2017 there were 233 NHS trusts and NHS foundation trusts in England. A number of trusts ceased operations or consolidated with other trusts since the start of our data, 2012/13. See: NHS Confederation (2017) *NHS Statistics, facts and figures.* Available at: http://www.nhsconfed.org/resources/key-statistics-on-the-nhs

8 We carried out panel regressions (266 trusts X 4 years from 2012/113 to 2015/16) of the log core standards on financial position, with trust and year fixed effects. A balanced panel is not available for all standards. For cancer, we get a t-statistic of 3.13, significant at 1%, on financial position with 653 observations and an R2 of 0.16. For A&E, we get a t-statistic of 4.28, significant at 1%m with 711 observations and an R2 of 0.45. For referral to treatment, we get a t-statistic of 5.87, significant at 1%, with 692 observations and an R2 of 0.34. For the financial data used, see: Monitor (2017) FOI Trust financial data. Available at: https://www.gov.uk/government/publications/foi-trust-financial-data. For elective care data, see: NHS England (2018a) Consultant-led Referral to Treatment Waiting Times. Available at: https://www.england.nhs.uk/statistics/statistical-work-areas/rtt-waiting-times/. For cancer waiting time data, see: NHS England (2018b) Cancer waiting times. Available at: https://www.england.nhs.uk/statistics/statistical-work-areas/cancer-waiting-times/. For A&E waiting time data, see: NHS England (2018c) A&E Attendances and unplanned Admissions. Available at https://www.england.nhs.uk/statistics/statistical-work-areas/ae-waiting-times-and-activity/

9 It may be that trusts make a surplus on planned care and usually lose on emergency unplanned admissions. Those with high levels of unplanned A&E admissions are the one that overspend. We checked against this in the above regressions by controlling for A&E admissions by trust. While A&E admissions enter with a positive and significant coefficient, meaning they are associated with more patient safety incidents as expected, the control does not change the sign on the financial position coefficient nor does it make it insignificant.

10 It may be that higher levels of reported patient safety incidents are due to higher levels of reporting openness. "Strongly agree" and "agree" percentage-share responses to the NHS Staff Survey questions "To what extent do these statements reflect your view of your organisation as a whole? a) Care of patients / service users is my organisation's top priority [and] b) My organisation acts on concerns raised by patients / service users" are proxies for reporting openness included as controls in the patient safety regressions. The coefficient on financial position increases in magnitude by 12% and retains the 1% level of significance. The coefficient on "My organisation acts on concerns raised by patients / service users" is insignificant while the coefficient on "Care of patients / service users is my organisation's top priority" is significant at the 10% level and negative, implying that the more staff agree that patient care is priority the fewer (reported) patient safety incidents there are.

Fig. 5: NHS trust average performance and performance implied by hypothetical financial position improvement



Will an improvement in finances reverse this trend?

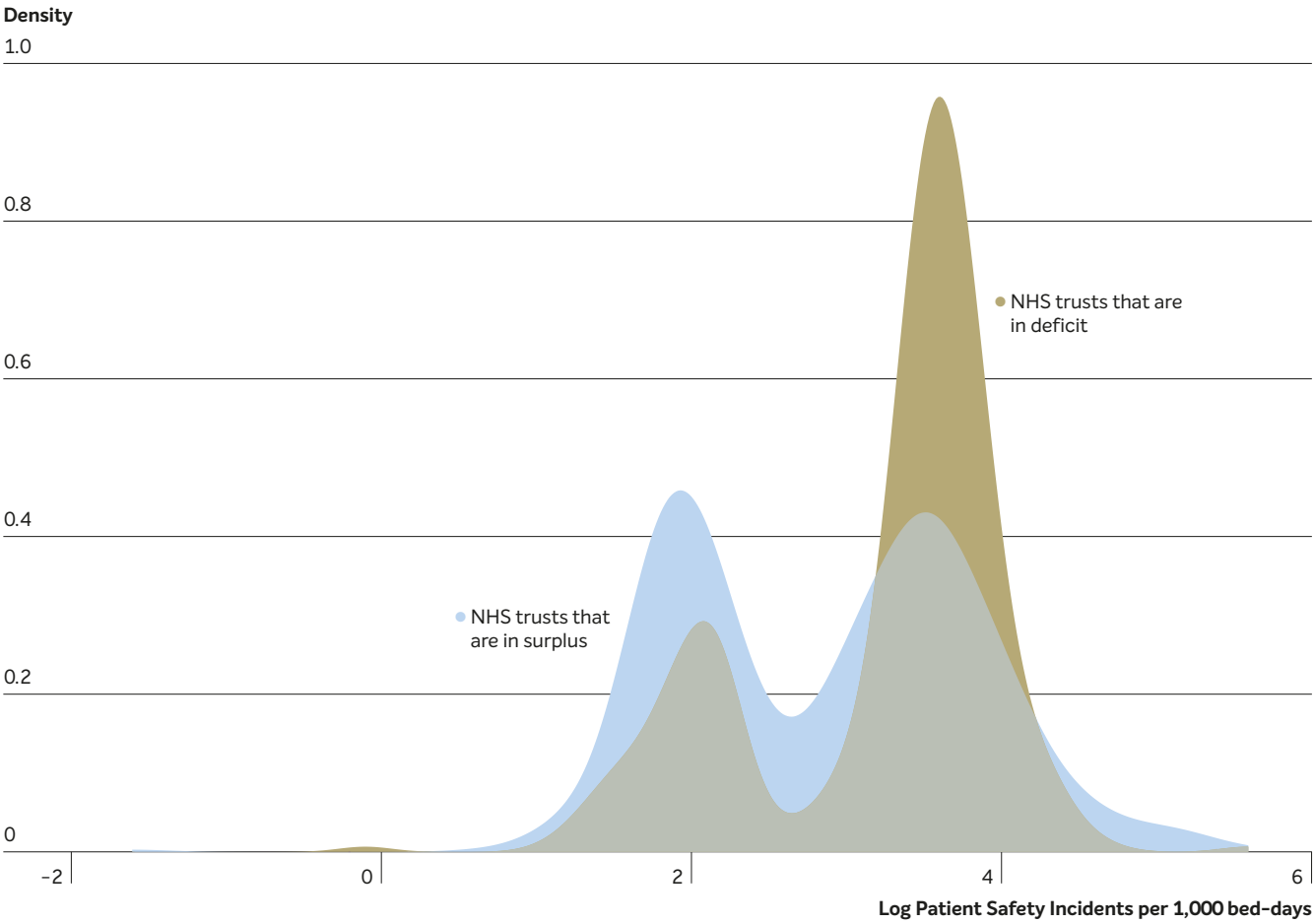
The above chart shows the expected improvement in clinical performance assuming a 10 percentage point[11] improvement in financial position. This is based on CPP analysis of trust-level data (fig. 5):[12]

- The cancer treatment performance would improve by 29%, taking performance from 88% to 91%, **above the 85% standard**.
- It would more than close the average A&E performance gap, taking performance from 94.4% to 95.8% of all attendances seen within four hours, **just over the 95% standard**.
- For elective care, performance would go from 83.1% of all patients referred within 18 weeks to 88.4%, closing the gap by 59% but **still short of the 92% standard**.

11 Financial position is defined as surplus or deficit as a percentage of turnover. Such an improvement would be difficult, but not impossible: the worst financial position in the sample is -45% and the best 37% of turnover.

12 We do this by taking the regression coefficients we estimated above that measure the effect of a 1-percentage point improvement in a trust's financial position on each one of the core standards, using them to linearly extrapolate the effects of a 10-percentage point improvement.

Fig. 6: Patient safety in deficit and surplus NHS trusts



There is also a strong link between underfunding and patient safety (fig. 6). Deficit trusts reported an average of 32.2 incidents per 1,000 bed-days while non-deficit trusts reported an average of 27.7 incidents.[13] A 10-percentage point improvement in the average trust's financial position would cut patient safety incidents by 17%, from the average of 29.4 to 24.5 incidents per 1,000 bed-days.[14,15]

The analysis here shows that the NHS, in its current form, with its current funding arrangement, is not sustainable if we remain committed to the current standards of patient care.

A 10-percentage point improvement in the average trust's financial position would cut patient safety incidents by 17%

13 A t-test of the difference in means of the logged variable between the two groups – deficit and surplus – yields a test statistic of -5.9, significant at the 1% level.
14 This regression controls for trust and year fixed effects, as in the previous regressions on core standards. Matching the patient safety data with the financial data gives us 213 trusts from 2012–13 to 2015–16.
15 Again, we acknowledge that we need to maintain a culture where incidents continue to be reported openly so rates might continue to rise.

In summary

Increasingly severe winter crises are not temporary – they are acute symptoms of a structurally weak system

The estimated cumulative funding shortfall by 2048/49 is

£241 billion

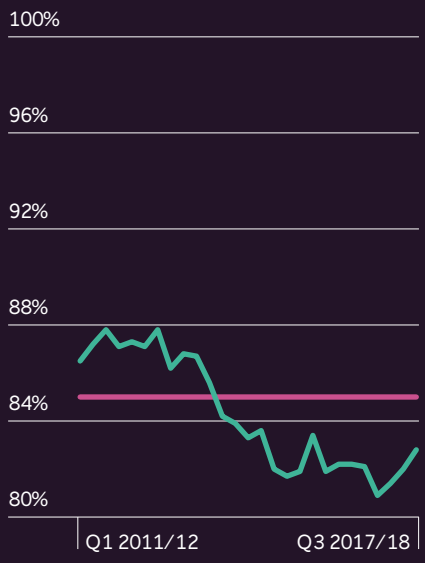
Planned expenditure for the NHS over this parliament is set to grow per year by

0.6%

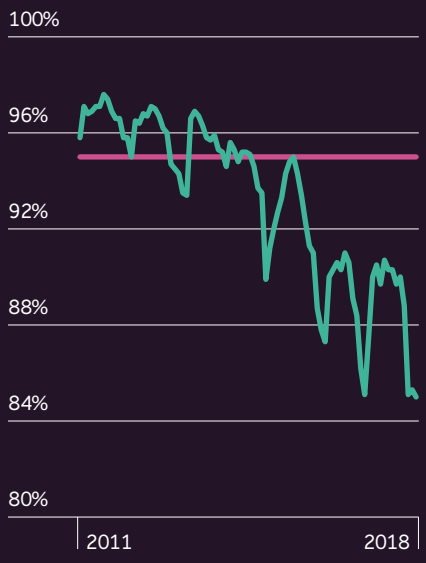
The historical average per year is

4.3%

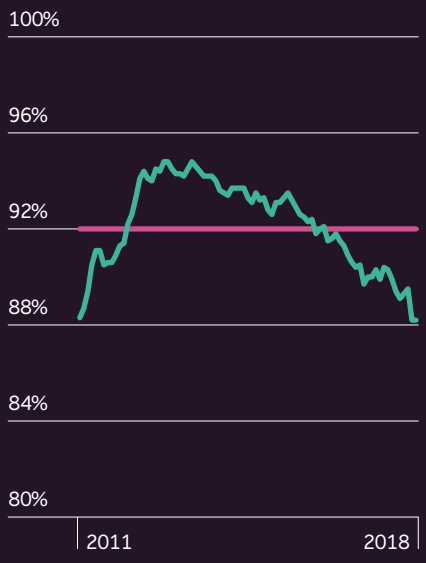
Cancer treatment
Target: 85% of patients to be treated for cancer within 62 days of referral from a general practitioner (GP)



A&E
Target: 95% of patients attending A&E to be admitted, transferred or discharged within four hours



Elective care
Target: 92% of patients must begin treatment within 18 weeks of referral



● Target ● Current development

What kind of system is needed to meet the needs of a changing population?

England's population is projected to grow by 7.5% by the middle of the next decade, due to a combination of natural change and international migration.[16] It is also ageing faster than it is growing, with all regions seeing their 65 years and over population growing faster than younger age groups.[17] The country's older population is projected to grow by 20.4% over the next decade.

CPP will examine the health needs of all age groups throughout its work on health but focusses here on the impact of ageing as the most significant concern. The transformation in society, from old to older, is not being matched by a transformation in the organisation of care for the elderly. Indicatively, while life expectancy at birth continues to increase, *healthy* life expectancy at birth has declined – meaning people are likely to experience poorer health earlier in their lives.[18]

20.4%

The country's older population is projected to grow by 20.4% over the next decade

Elderly people cost more to care for than younger people because of their tendency to develop multiple chronic conditions, which require complicated drug regimes, coordination of care, and which carry risk of physical frailty (fig. 7).[19] Costs rise for women faster than men during childbearing years, but men then become costlier at around age 55.[20] While health needs for elderly women are greater than those for elderly men, evidence suggests women tend to have fewer resources to access health care, a weaker tendency to use hospitals, and stronger tendency to use home health care than men.[21]

> The transformation in society, from old to older, is not being matched by a transformation in the organisation of care for the elderly

This chapter argues that the current system of health and social care cannot meet the increasing demand for its services associated with a population that is both growing and ageing. There are three main reasons for this:

- **Workforce challenges:** Ageing is increasing the demand for health and care while simultaneously cutting the relative supply of labour. Lower pay growth in health and care has also contributed to chronic understaffing, a situation set to worsen with Brexit.
- **Hospitals and social care are not fit for purpose:** The increasing prevalence of multiple chronic conditions from middle to older years is sending more people directly and repeatedly to hospital as they cannot find the support they need within their care communities or indeed at home. People are also spending longer stays in hospital as they cannot be discharged into care facilities or access suitable home care. Both trends inflate the cost and reduce the quality of care provision.
- **Integration plans are overly optimistic:** The organisation of social care remains highly fragmented across local authorities and not integrated with health care despite various attempts to do so. Both services are underfunded.

16 Natural change accounts for just over half of projected population growth with international migration accounting for the rest. See Office for National Statistics (2016a) *Statistical bulletin: Subnational population projections for England: 2014-based projections.* Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/subnationalpopulationprojectionsforengland/2014basedprojections

17 Government Office Regions: Greater London, South East, South West, West Midlands, North West, North East, Yorkshire and the Humber, East Midlands, and East of England.

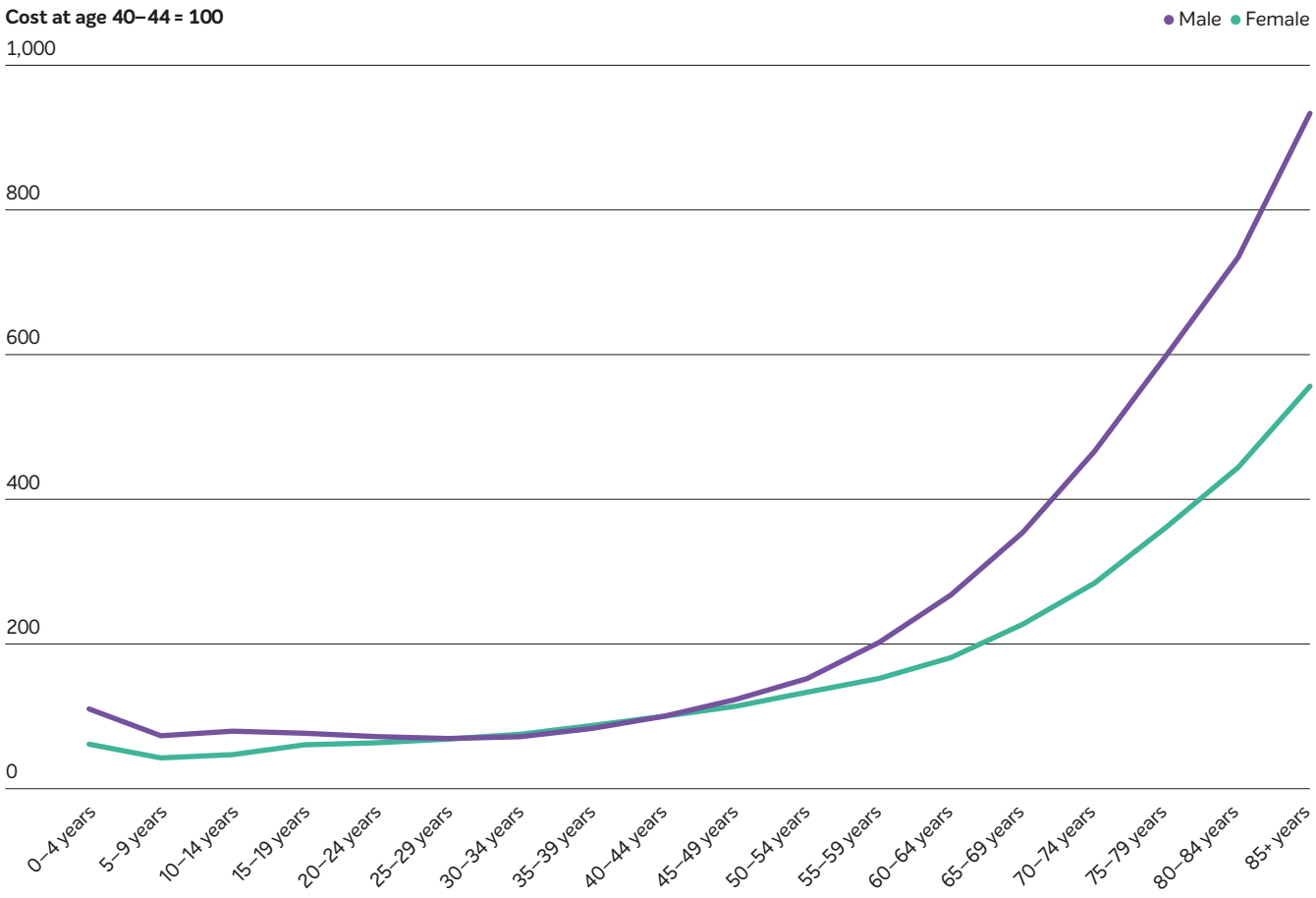
18 Life expectancy at birth for women (men) went from 83 (79.2) in 2010–12 to 83.1 (79.4) in 2011–13. Healthy expectancy at birth for women (men) went from 64.1 (63.4) in 2010–12 to 63.9 (63.3) in 2011–13. Data refer to England and are from Marmot Indicators for Local Authorities in England, 2015.

19 Studies of the US show that 88% of the population aged 65 and over have at least one chronic condition compared to 45% of the general population, and that 75% of all health care expenditure is related to the treatment of chronic conditions. See: Wolff, J.L. et al. (2002) *Prevalence, Expenditures, and Complications of Multiple Chronic Conditions in the Elderly* JAMA Internal Medicine 162(20), 2269-2276.

20 Kelly, E. et al. (2015) *Public hospital spending in England: evidence from National Health Service administrative records*. Institute for Fiscal Studies, IFS Working Paper W15/21.

21 Cameron, K.A. et al. (2010) *Gender Disparities in Health and Healthcare Use Among Older Adults*. Journal of Women's Health 19(9), 1643–50. Available at: https://www.ncbi.nlm.nih.gov/pubmed/20695815

Fig. 7: General and acute NHS costs by age and gender



Health and care workforce

An ageing population creates not only an increase in demand for health and care, but also – by definition – creates a supply side problem given the relative diminution in the size of the labour force. This is a particular problem for health and care, which are both labour intensive (the NHS spends 65% of its operational budget on its staff[22]) and in competition for labour with better-funded sectors (earnings growth in the whole economy ran three-times faster than the health care and social care sectors between 2010/11 and 2015/16[23]).

Evidence also suggests that lower relative pay contributes to chronic understaffing; Health Education England estimates total NHS vacancies for nurses, midwives and allied health professionals (AHPs) to be almost 42,000 in 2017.[24] A growing recognition of the impact of a broad sector pay freeze, and changes in funding placements like with nurses bursaries, on workforce numbers – including an increase in the numbers of nurses leaving the profession[25] – helped to prompt the Health Secretary to announce in March 2018 a 6.5% increase over three years for all frontline staff except doctors. But the issue of recruitment and retention will remain at the top of the agenda, particularly in light of Brexit.[26] This of course does not also consider the contribution made by the unpaid workforce such as family and carers.

22 Public Health England (2017) *Facing the Facts, Shaping the Future: A draft health and care workforce strategy for England to 2027.* Available at: https://www.hee.nhs.uk/sites/default/files/documents/Facing%20the%20Facts%2C%20Shaping%20the%20Future%20%E2%80%93%20a%20draft%20health%20and%20care%20workforce%20strategy%20for%20England%20to%202027.pdf

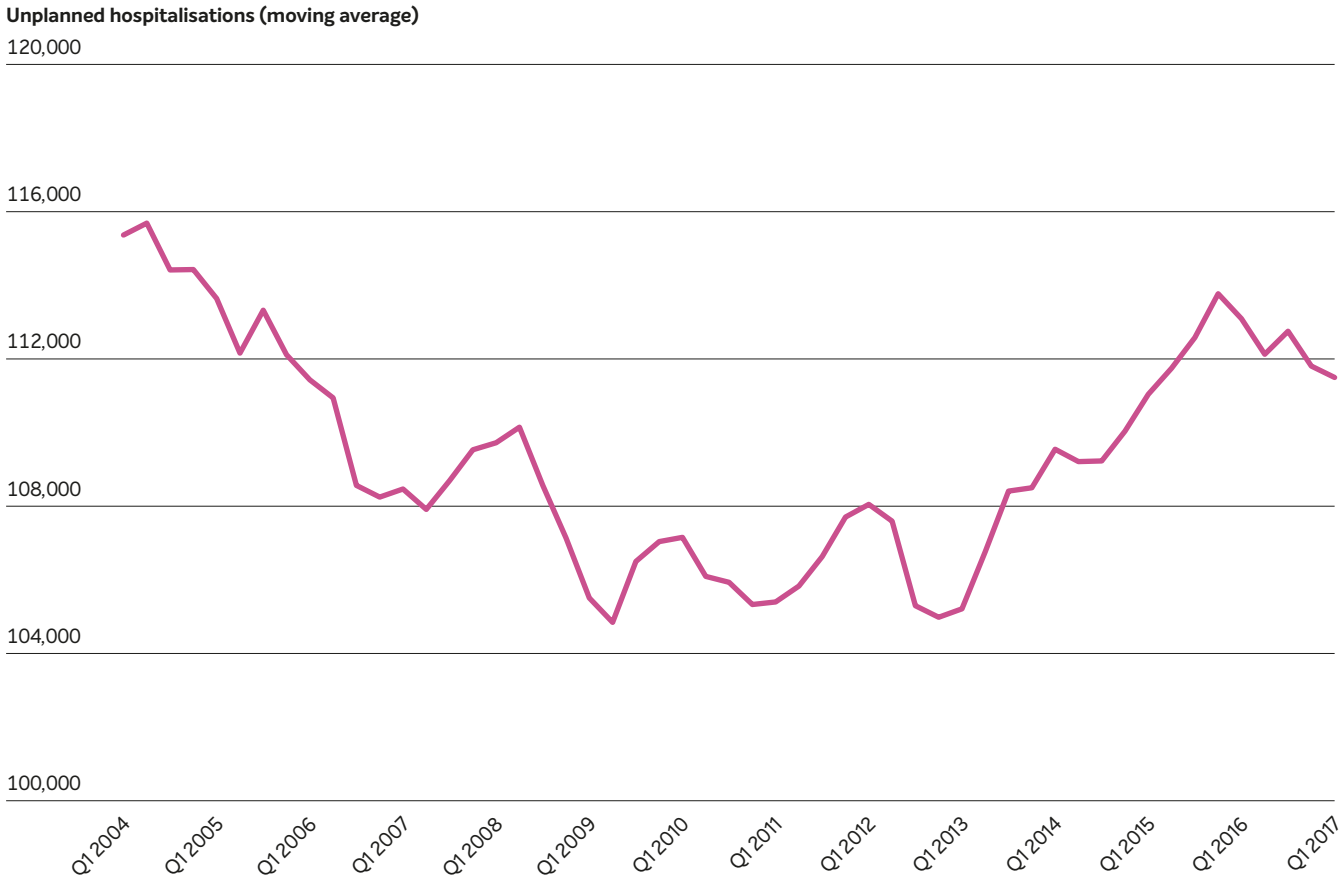
23 Comparison of Hospital and Community Health Services (HCHS) pay index with ONS' Average Weekly Earnings in the whole economy including bonuses excluding arrears.

24 Public Health England (2017) op cit.

25 The number of nurses leaving the profession rose from 7.1% in 2011–12 to 8.7% in 2016. See: Ibid. Pay is an important reason for this, but the Royal College of Nursing also highlighted increasing work intensity, limited career pathways and training, and poor workforce planning.

26 NHS Digital estimates that in the year following the referendum 9,832 EU doctors, nurses, and hospital support staff had left the NHS. See: O'Carroll, L. and Campbell, D. (2017) *Almost 10,000 EU health workers have quit NHS since Brexit vote.* The Guardian. Available at: https://www.theguardian.com/society/2017/sep/21/almost-10000-eu-health-workers-have-quit-the-nhs-since-brexit-vote

Fig. 8: Unplanned hospitalisations for chronic Ambulatory Care Sensitive Conditions (ACSC)



> Many of England's health problems are down to social conditions, which lie outside the traditional boundaries of medical research and training

Advanced technology, including AI, could alleviate chronic understaffing by freeing health care professionals from administrative duties and routine medical analysis that can be automated (e.g. medical imaging, scheduling systems, patient data integration), allowing them to concentrate on the repeated and empathetic care and complex diagnosis, particularly demanded by an ageing population and those with mental health conditions. But it is not just the quantity of staff that presents a significant challenge. The workforce needs to adapt.

Health care professionals have predominantly been trained in and selected based on their aptitude for organic chemistry, biology and medicine. We now need a more empathetic, communicative, and creative workforce. Many of England's health problems are down to social conditions, which lie outside the traditional boundaries of medical research and training. Research on the social determinants of health, appropriate interventions and the ways in which these work hand in hand with traditional models of care is still in its infancy relative to traditional medicine.

We need health care professionals with a firm understanding of how the elderly live, experience illness, adhere to medical advice, and what their social needs are; a task perhaps suited as much to anthropologists, sociologists and the new wave of community services based public health staff, as trained medical staff.

Neither hospitals nor social care are designed to cope with an ageing population

Public expenditure on social care declined in real terms by 8% between 2009/10 and 2015/16 in England.[27] This has had a marked impact on the capacity of the NHS to respond to increased demand whilst itself experiencing a slowdown in funding growth over the same period. In particular through:

People going straight and repeatedly to A&E because they cannot access the support they need within their communities.

Most of these people are elderly who account for a fifth England's population, but a third of A&E re-attendances.

Data on unplanned hospitalisations for chronic ambulatory care sensitive conditions (ACSC), where effective community care could have prevented the need for hospital admission, allow us to examine this channel (fig. 8).

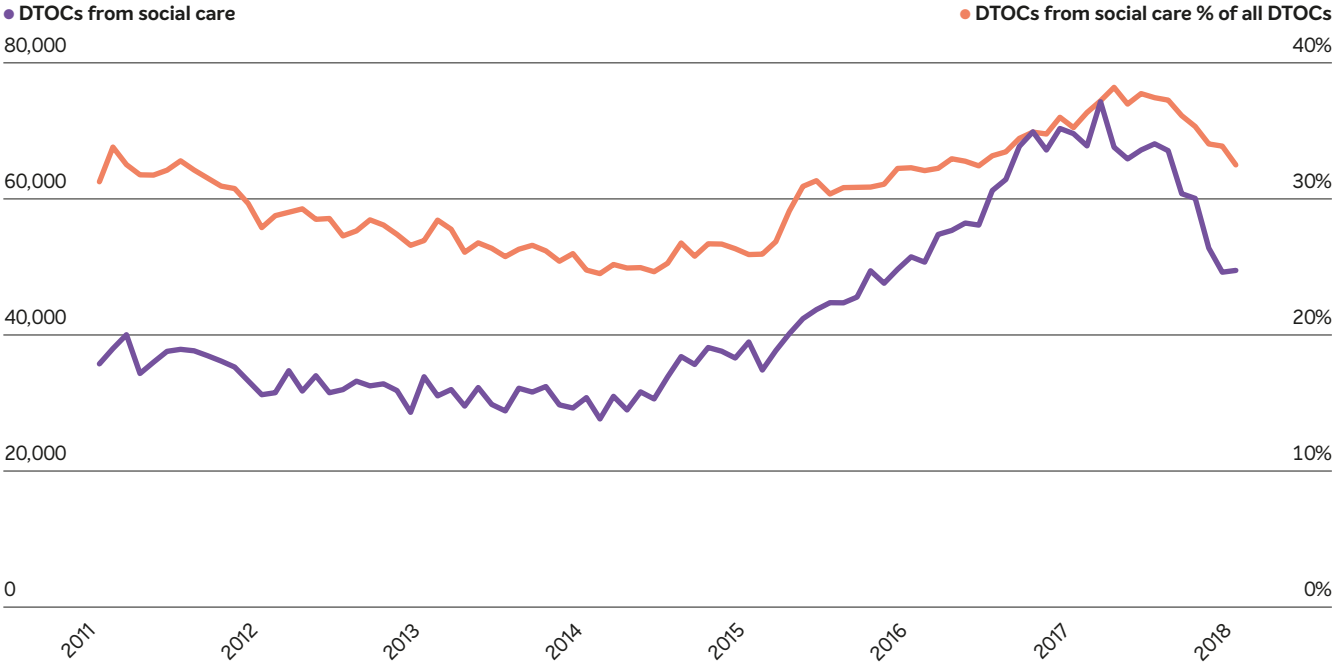
After a period of structural decline from 2004 through to 2009, the number of unplanned ACSC hospitalisations went into a period of structural growth from 2010 onwards, from around 106,000 in 2009 to 111,497 in the first quarter of 2017.

People spending longer periods in hospital because they cannot be discharged into local residential facilities or access suitable domiciliary care.

Data on 'delayed transfer of care days' (DTOCs) attributed to social care allow us to examine this second channel. DTOCs attributed to social care occur when, for example, a patient who is ready to be discharged is still occupying a hospital bed because they are awaiting availability in a care home. Social care DTOCs as a percentage of all DTOCs rose from an average of 26% in 2014 to one of 36% in 2017 (fig. 9).

While there is evidence that the tide began to turn in 2017, supported by a £1bn investment made in social care that year to prevent further deterioration in social services, there is a long way to go from emergency capital investments.[28] Analysis of the relationship between DTOCs and trust financial data suggests that if the average trust were to experience another 1,000 DTOCs on top of its annual average of 1,680, its financial position could be expected to deteriorate by 25%.[29]

Fig. 9: Delayed transfer of care days in NHS England from social care



27 NHS Digital (2016) *Personal Social Services: Expenditure and Unit Costs, England 2015–16.* Available at: https://digital.nhs.uk/data-and-information/publications/statistical/personal-social-services-expenditure-and-unit-costs/personal-social-services-expenditure-and-unit-costs-england-2015-16

28 HM Treasury (2017) *Spring Budget 2017.* Available at: https://www.gov.uk/government/publications/spring-budget-2017-documents/spring-budget-2017

29 The regression is an unbalanced panel of 262 trusts from 2012/13 to 2015/16, giving 993 observations. The dependent variable is the financial position measure (surplus/deficit as a percentage of turnover) and the independent variable is log social care DTOCs. It includes trust and year fixed effects. The F-statistic is 68.9, and t-value is -1.95, significant at 1%.

Integration alone will not solve the problem

At the start of 2018 the government brought responsibility for health and social care within the same department. This administrative shift symbolised a wider, long-standing commitment towards the integration of the two services, thought to be key to easing the burden on struggling hospitals where unit costs are higher.[30] More strategic decision making between health and care provision, and more accountability between overlapping services should lead to savings, but only in the long run and only if the integration is managed well.

In the short term, however, the National Audit Office – in an evaluation of nearly 20 years of initiatives to integrate health and social care by successive governments – found "no compelling evidence to show that integration in England leads to sustainable financial savings or reduced hospital activity."[31]

Meanwhile, the organisation of care is currently highly fragmented across local authorities and not integrated with health care despite various attempts to do so.[32] Local authorities are responsible for care provision in their areas, commissioning 95% of care beds from 5,500 different for-profit and charitable providers that collectively operate 11,300 homes across the UK.[33] Around 7,900 of these homes are in England, a third of which the Care Quality Commission rated as either 'inadequate' or 'requires improvement'.[34]

Of the around 7,900 care homes in England, a third were rated by the Care Quality Commission as either 'inadequate' or 'requires improvement'

> We argue that our work must look beyond the traditional confines of health and social care to integration of mental, physical and public health programmes within wider social and economic policy

Given both services are underfunded, integration of health and social care will struggle to relieve the financial strain on the NHS. In this respect we argue that our work must look beyond the traditional confines of health and social care to integration of mental, physical and public health programmes within wider social and economic policy. There are some signs of government's willingness to explore this concept through, for example, the 'healthy ageing programme' announced in March 2018 as part of the Industrial Strategy. Although other programmes, such as Defra's £220m Clean Air Fund, demonstrate continued disjointedness from – in this instance – Public Health England's initiatives.

Throughout our 12-month programme of work, CPP will join others' efforts to tackle social determinants of health (e.g. Health Foundation) *as part of, rather than peripheral to*, health and social care system re-design (see Chapter 5).

30 Triggle, N. (2017) *NHS Health Check: Hunt says NHS problems 'unacceptable'.* BBC. Available at: http://www.bbc.co.uk/news/health-38926697

31 National Audit Office (2017) *Health and Social Care Integration.* Available at: https://www.nao.org.uk/wp-content/uploads/2017/02/Health-and-social-care-integration.pdf. Similarly, social prescribing is another example of this. It provides GPs with a non-medical referral option, referring patients to help provided by local authorities, as with help with debt management or housing. Yet these authorities are themselves underfunded and under strain.

32 Of the 410,000 residents in care homes, 49% receive local-authority funding – a quarter of whom pay top-ups and most of whom have their income, such as pensions, offset against state contributions. Another 41% are self-funded, and the NHS commissions nursing care services for the remaining 10% of residents. Note that local-authority fees are on average 10% below the cost of provision. See: Competition & Markets Authority (2017) *Care homes market study: summary of final report.* Available at: https://www.gov.uk/government/publications/care-homes-market-study-summary-of-final-report/care-homes-market-study-summary-of-final-report

33 Competition & Markets Authority (2017) op cit.

34 Data refer to residential social care homes and community-based adult social care services in England in 2017. See: Care Quality Commission (2017a) *The state of health care and adult social care in England: 2016/17.* Available at: http://www.cqc.org.uk/sites/default/files/20171010_stateofcare1617_ratingsdata.xlsb

Box 1: Is the Five Year Forward View helping?

NHS England's 2014 'Five Year Forward View' (FYFV) was an ambitious vision that set out a strategy for how the health system could respond to demand and supply challenges over the short-medium term. It also warned of an annual £20bn shortfall by 2020/21.

Despite a range of sometimes radical recommendations designed to put the system on a more sustainable footing, followed by an updated version of the strategy in 2017 (which further emphasised the role of more efficient care and population health management), pressures on the NHS have only continued to increase.

Both the Five Year Forward View and its 2017 update underestimated:

1

Scale of funding shortfall and cost of reform

By 2014 a funding shortfall was already beginning to bite and the costs associated with implementing its proposed reforms were not sufficiently resourced. The FYFV predicted that Sustainability Transformation Plans (STPs, later Sustainability and Transformation Partnerships), aimed to make local providers work together to respond to local needs, would generate large savings. By 2017, however, NHS England's updated strategy admitted that 'demands on the NHS are higher than envisaged when the FYFV was published'[35] and the British Medical Association estimated that health and social care deficits across the 44 Sustainability and Transformation Partnerships (STPs) areas (covering all of England) amounted to £26bn.[36]

2

Time for reforms to take effect, if at all

Expectations of what effects the reforms would have and how soon they would take effect were overly-optimistic, notably well-intentioned efforts to engage communities and reduce demand by inspiring "health as a social movement". It is hard to generate social movements and hard to predict what shape they will take. It is harder still to predict how much money they will save.

3

Pace of increase in demand from the ageing population

A surge in demand from England's ageing population came sooner than expected. It was not so much the size of England's elderly population that caught the NHS off guard, but how demanding it would be.[37] The number of A&E attendances increased faster than population growth: from 406 attendances per 1,000 people in 2010 to 423 per 1,000 people in 2016.[38] While the elderly account for a fifth England's population, they account for a third of all A&E re-attendances.

4

Productivity savings

The FYFV predicted productivity savings in the NHS could reasonably run at between 2–3% per year. Historically, however, the rate is closer to 0.8%.[39] In the year the original 2014 strategy was published the productivity growth rate was 1.4% and the following year (the latest for which there is available data) the rate fell to just 0.1% (Appendix 2).

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35 NHS England (2017) *Next Steps on the NHS five year forwarded view.* Available at https://www.england.nhs.uk/wp-content/uploads/2017/03/NEXT-STEPS-ON-THE-NHS-FIVE-YEAR-FORWARD-VIEW.pdf

36 British Medical Association (2017) *Delivery costs extra: can STPs survive without the funding they need?* Available at: https://www.bma.org.uk/collective-voice/policy-and-research/nhs-structure-and-delivery/sustainability-and-transformation-plans.

37 Projections of England's elderly (65+) population made in 2014, when the FYFV was published, and in 2016, the latest available data, are very similar.

38 NHS Digital (2017) *Hospital Accident and Emergency Activity, 2016–17: Tables.* Available at: https://digital.nhs.uk/catalogue/PUB30112

39 Office for National Statistics (2018) *Public service productivity estimates, healthcare: 2015.* Available at: https://www.ons.gov.uk/economy/economicoutputandproductivity/publicservicesproductivity/articles/publicservicesproductivityestimateshealthcare/healthcare2015

In summary

30 years £

75 years £ £ £

80 years £ £ £ £ £

It costs three times more to look after a 75-year-old and five times more to look after an 80-year-old than a 30-year-old

Today there are

0.5 million

more people aged over 75 than there were in 2010, and there will be

2 million

more in ten years' time

Health Education England estimates total NHS vacancies for nurses, midwives and allied health professionals (AHPs) at almost

42,000

The number of nurses leaving the profession rose from

7.1% in 2011/12 to

8.7% in 2016

Government expects NHS England to achieve efficiency savings of

2–3%

per year from 2014/15–2020/21

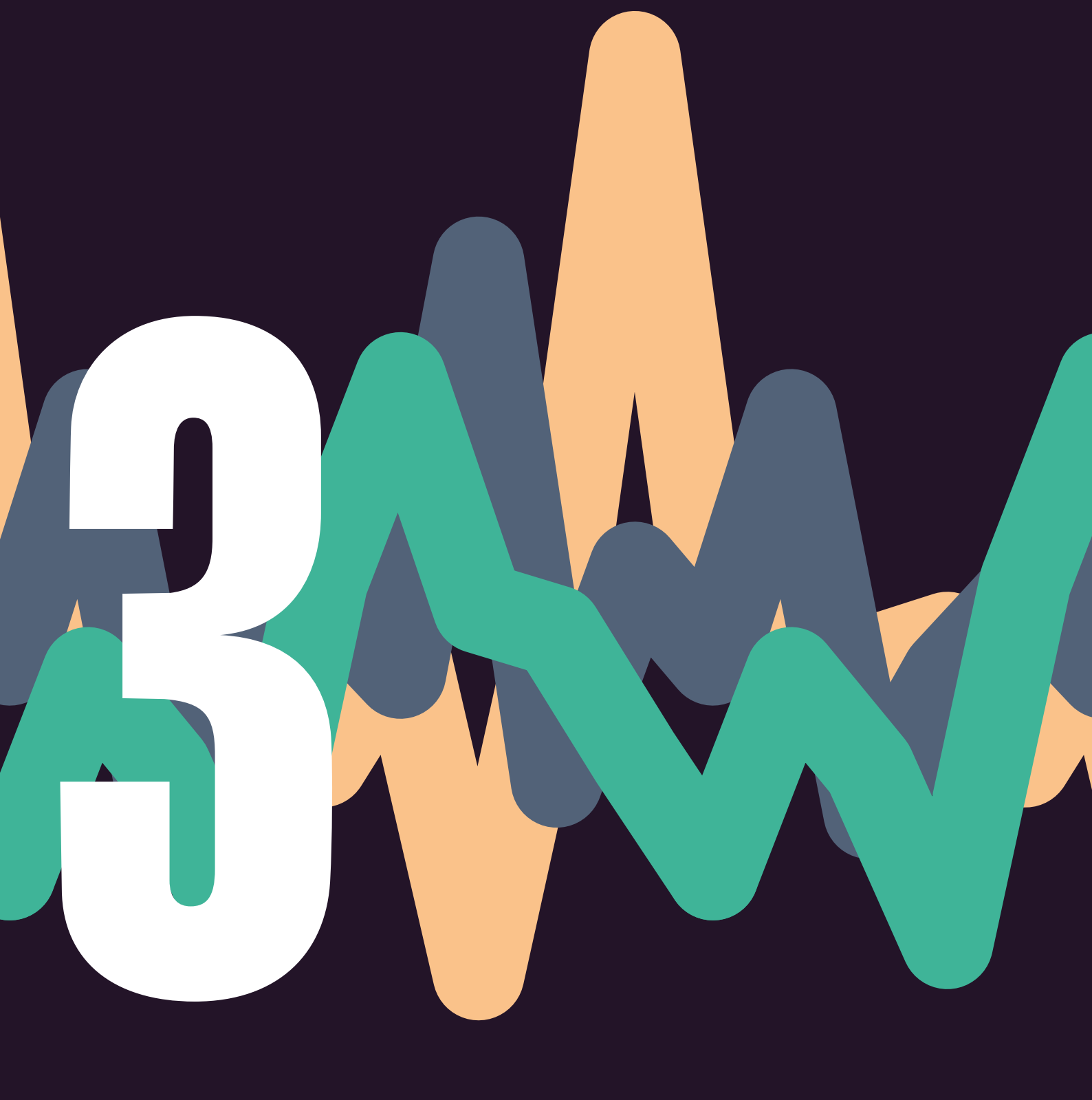
Since 1996 this rate has only been achieved

4x

During this period, the maximun of 3% was only achieved once, in

2011

What role for place in enabling healthy lives?



Life expectancy at birth varies across England along stark spatial lines. These geographical patterns tell us that health is as much an issue – if not more so – of place and populations as it is about access to hospital care and complex medical technologies. Studies have shown that medical care – all kinds – accounts for as little as 10% of a population's health outcomes, with the rest accounted for by behaviours, social circumstances, environment, and genetics.[40]

Life expectancy at birth is six years longer in the least deprived local authority (Hart) than in the most deprived local authority (City of Hull) (fig. 10).[41] CPP analysis of local authority data shows that deprivation, measured across income, employment, education, housing and crime, can explain almost half of the variation in male life expectancy at birth.[42]

> "Why treat people and send them back to the conditions that made them sick?"
>
> Sir Michael Marmot, Chair, WHO Commission on Social Determinants of Health, (28 August 2008)[43]

+6

Life expectancy at birth is six years longer in the least deprived local authority (Hart) than in the most deprived local authority (City of Hull)

The link between income and employment deprivation and health care is particularly strong and explains why health outcomes in England are spatially correlated.[44] CPP analysis of 32,844 local super output areas (LSOAs) in England show that the spatial distribution of income deprivation across England can explain 47% of potential life years lost, the average years a person would have lived had they not died prematurely.[45] Employment deprivation can explain up to 49% of years of potential life lost.

> Areas with high levels of deprivation have significantly higher levels of unplanned admissions to hospital

The link also exists for mental, and not just physical, health. England's spatial distribution of income deprivation can explain up to 37% of the country's distribution of mood and anxiety disorders, measured by the prevalence of mood (affective), neurotic, stress-related and somatoform disorders. Employment deprivation can explain up to 52% of these disorders.

As deprivation plays a major role in explaining local health outcomes, it therefore exerts strain on local health care services. CPP analysis of the same LSOA data shows that areas with high levels of deprivation have significantly higher levels of unplanned admissions to hospital.[46] Employment deprivation alone can explain 61% of the variation in unplanned admissions to hospital.

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40 Health Affairs (2014) *The Relative Contribution of Multiple Determinants to Health.* Available at: https://www.healthaffairs.org/do/10.1377/hpb20140821.404487/full/ /

41 Life expectancy at birth in Kingston upon Hull for men is 76.6, women 80.5. In Hart, 82.4 and 86.6. Data refer to 2012–14: Office for National Statistics (2016b) *Healthy life expectancy (HLE) and life expectancy (LE) at birth by upper tier local authority.* Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/datasets/healthylifeexpectancyhleandlifeexpectancylea tbirthbyuppertierlocalauthorityutlaengland. Index of Multiple Deprivation: Ministry of Housing, Communities & Local Government (2015) English indices of deprivation 2015. Available at: https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015

42 This is the R^2 – 0.46 – of a regression of male life expectancy at birth on the Index of Multiple Deprivation across England's 324 local authorities which yields an F-statistic of 271, and a coefficient of -0.46, significant at the 1% level. The Pearson correlation coefficient between male life expectancy at birth and the Index of Multiple Deprivation is -0.67.

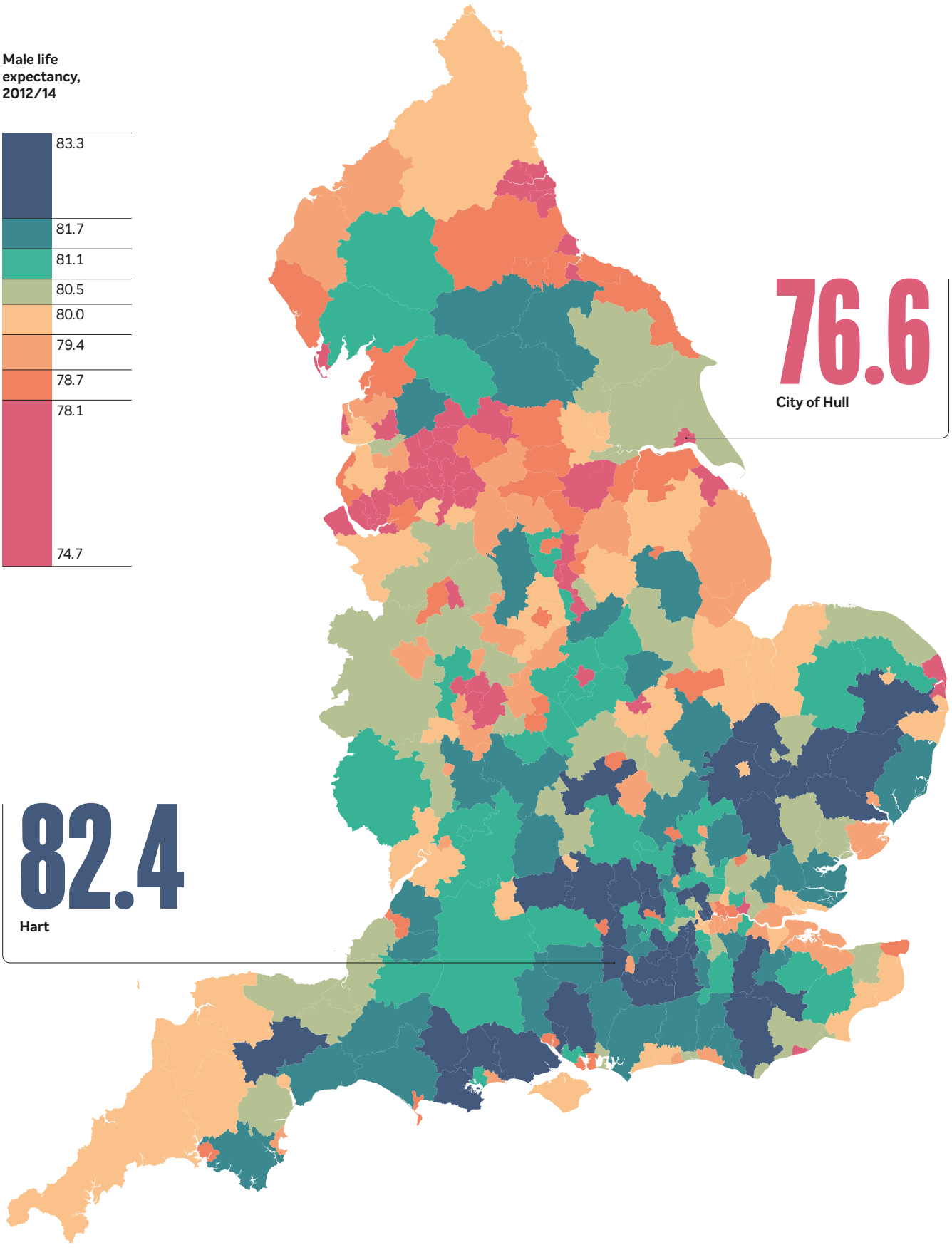
43 World Health Organization (2008) *Closing the gap in a generation: Health equity through action on the social determinants of health: The Final Report of the WHO Commission on Social Determinants of Health.* Available at: http://www.who.int/social_determinants/final_report/media/csdh_report_wrs_en.pdf

44 Income deprivation components: Adults and children in Income Support families, Adults and children in income-based Jobseeker's Allowance families, Adults and children in income-based Employment and Support Allowance families, Adults and children in Pension Credit (Guarantee) families, Adults and children in Working Tax Credit and Child Tax Credit families not already counted, and whose equivalised income (excluding housing benefit) is below 60 per cent of the median before housing costs, and Asylum seekers in England in receipt of subsistence support, accommodation support, or both.
Employment deprivation components: Claimants of Jobseeker's Allowance (both contribution-based and income-based), women aged 18–59 and men aged 18–64, Claimants of Employment and Support Allowance (both contribution-based and income-based), women aged 18–59 and men aged 18–64, Claimants of Incapacity Benefit, women aged 18–59 and men aged 18–64, Claimants of Severe Disablement Allowance, women aged 18–59 and men aged 18–64, and Claimants of Carer's Allowance, women aged 18–59 and men aged 18–64.

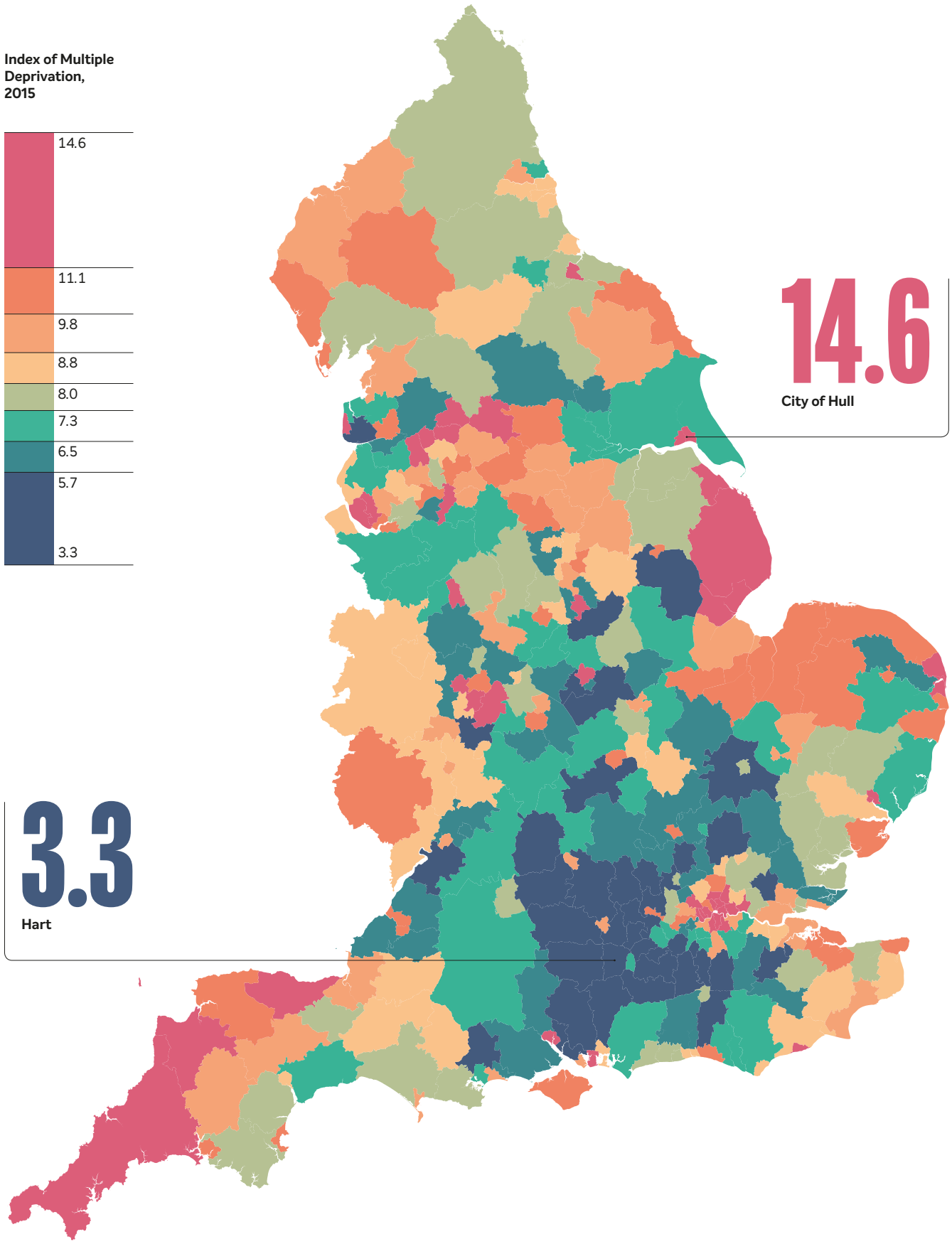
45 The results in this and the following paragraph refer to regressions of the 'anxiety and mood disorder' (mood (affective), neurotic, stress-related and somatoform disorders) and 'potential life years lost' (death before the age of 75 from any cause) indicators from the Health Deprivation domain, measured across 32,844 English LSOAs. The Income domain yield R^2s of 0.37 and 0.47 for anxiety and mood disorders and for potential life years lost, respectively. For the Employment domain, the respective R^2s are 0.52 and 0.49. All coefficients are positive and significant at the 1% level. Further results available upon request.

46 ONS compiles its Index of Multiple Deprivation at the LOSA level. The results in this paragraph refer to regressions of the 'morbidity' indicator from the Health Deprivation domain, which measures unplanned admissions to hospital, on the non-Health domains of the Index of Multiple Deprivation across 32,844 English LSOAs. In simple regressions of 'morbidity' on the individual domains, Employment yields an R^2 of 0.61 as does Income, while the Education domain simple regression yields an R^2 of 0.44. All coefficients are positive and significant at the 1% level. Further results available upon request.

Fig. 10: Male life expectancy at birth and multiple deprivation[47]



47 ONS data measured at Local Authority level.
Multiple deprivation measured across income, employment, education, health, crime, housing, living environment.


Index of Multiple Deprivation, 2015
14.6
11.1
9.8
8.8
8.0
7.3
6.5
5.7
3.3
14.6
City of Hull
3.3
Hart

Deprivation and financial pressure have created Risk Zones in which care quality is seriously compromised

The link between local deprivation and the financial pressure it exerts on the local NHS trust has created a number of what the CPP has called 'Risk Zones.' These are local authorities that are home to **both below-average health outcomes *and* deficit-running NHS trusts** (fig. 11). CPP identifies 32 Risk Zones in England and finds that age-standardised mortality rates for causes considered avoidable, amenable and preventable are 29% higher than in other local authority areas.[48] People in these Risk Zones are hit first by a social environment which is conducive to illness and then by a health care system that struggles to respond under the scale of financial pressure.

Despite the spatial patterns associated with deprivation and poor outcomes, there is no obvious geographical distribution of the Risk Zones across England. This suggests that differences arise from varying NHS management quality.

32

CPP have identified 32 Risk Zones in England

Medway in Kent, for example, is home to the Medway NHS Foundation Trust, which in 2015/16 ran the largest deficit in the country (20% of turnover). Yet Medway local authority is not at the bottom of the deprivation table, with a percentile rank of 0.64 (0 least deprived; 1 most deprived). In fact, Medway's health outcomes – here, male life expectancy at birth – is only slightly below the English average. A year before the publication of the trust's finances, one *Telegraph* headline asked, "Medway: the country's worst hospital?"[49] Journalists and a Care Quality Commission inspection found that many of the trust's financial problems were related to poor management.[50]

In contrast, Liverpool local authority is the eighth most deprived in England. Its level of male life expectancy at birth is the eighth lowest in England. Despite these social determinants and corresponding low health outcomes, the local NHS trust ran a much smaller deficit than Medway's: 1% of turnover. While this suggests a better managed hospital system in Liverpool, it still presents a local health care system that is under pressure and that must cope with high levels of deprivation.

> People in these Risk Zones are hit first by a social environment which is conducive to illness and then by a health care system that struggles to respond under the scale of financial pressure

Other Risk Zones, like Cornwall, are hit both by high deprivation (worst 10%) as well as particularly acute ageing pressures. Cornwall's over 65 years population accounts for 24% of its total population compared to the average local authority's 19%. Its over 65 years population share is set to grow to 31% by 2031 compared to England's 22% forecast for that year.[51] Cornwall's NHS trust deficit – 2% of turnover – is double Liverpool's but still much lower than Medway's, despite these ageing and deprivation pressures.

+31%

Cornwall's over 65 years population share is set to grow to 31% by 2031 compared to England's 22% forecast for that year

48 A regression of the ONS "Age-standardised mortality rates for causes considered avoidable, amenable and preventable by local authority in England and Wales, 2014 to 2016" data across 324 local authorities on the Risk Zone dummy indicator yields a coefficient of 74, significant at the 1% level, an F-statistic of 54.6, and an R^2 of 0.14. The mean mortality rate for a non-Risk Zone is 259.4 and for a Risk Zone it is 333.4.

49 Donnelly, L. (2014) *Medway: the country's worst hospital? How the crisis unfolded.* The Telegraph. Available at: https://www.telegraph.co.uk/news/11251664/Medway-the-countrys-worst-hospital-How-the-crisis-unfolded.html

50 Care Quality Commission (2017b) *Medway NHS Foundation Trust.* Available at: https://www.cqc.org.uk/provider/RPA/reports

51 Cornwall Local Development Framework (2011) *Population and Household Change in Cornwall: Core Strategy Evidence Base Background Paper.* Available at: https://www.cornwall.gov.uk/media/3639161/Population-and-Household-Change.pdf. English estimates from ONS.

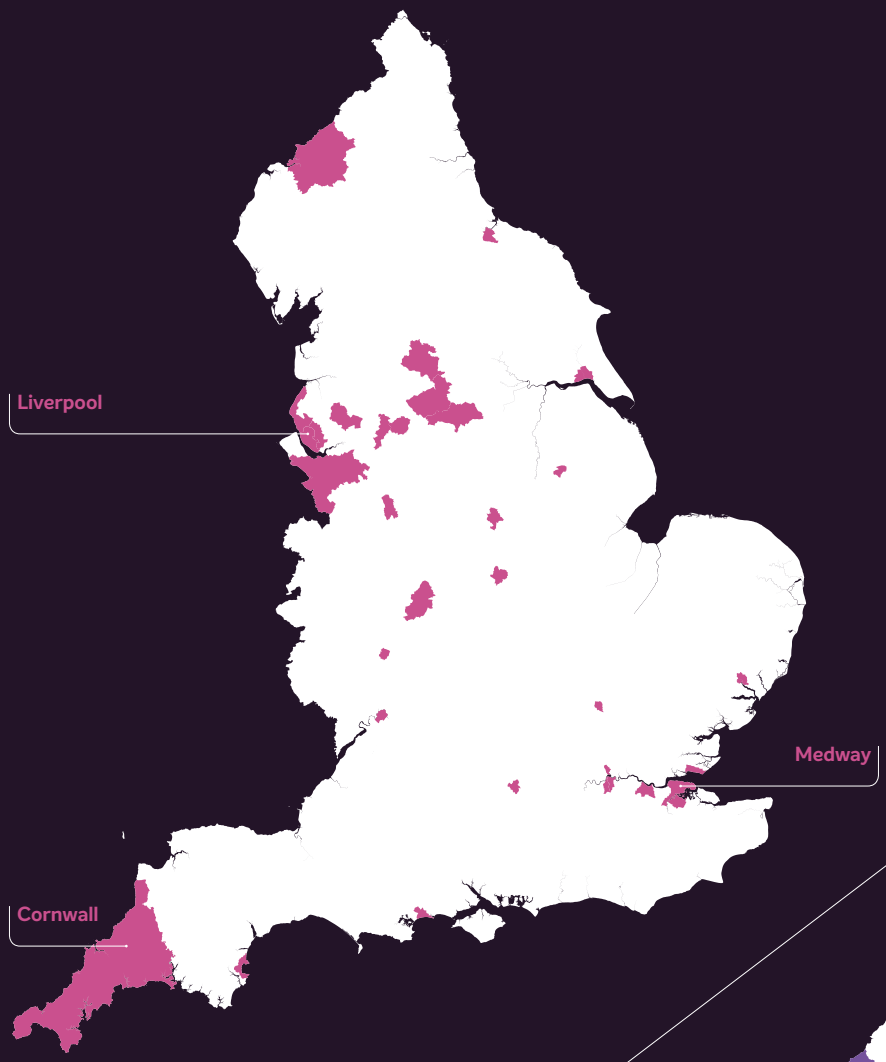


Fig. 11: Risk Zones in England

A Risk Zone (pink) is a Local Authority where male life expectancy at birth is below the English average (2012/14) and where local NHS trusts ran a financial deficit as a percentage of their turnover (2015/16)

Fig. 12: Crunch Zones in England

A Crunch Zone (purple) is a Local Authority where the 65+ population share is above the English average (2016) and where local NHS trusts ran a financial deficit as a percentage of their turnover (2015/16)

Uneven distribution of elderly creating social care Crunch Zones

The spatial distribution of ageing presents similar issues. Underfunding of social care, which varies by local authority, feeds into financial pressure on the NHS, making trusts more likely to run deficits. Those deficits are more of a problem in local areas that have a high population share of elderly people (fig. 12). CPP identifies 13 local authorities that are most likely to see a social care crunch: an elderly population weighing on an underfunded care sector, in turn compounding financial pressures on NHS trusts.

13

CPP have identified 13 local authorities that are most likely to see a social care crunch

The NHS is set up to treat people when they are sick, but then sends them back out into the environment that made them physically and mentally unwell. Addressing these social conditions directly and with wider local government and other partners will relieve the burden of sickness, including mental health disorders, and strain upon the NHS.

The NHS is set up to treat people when they are sick, but then sends them back out into the environment that made them physically and mentally unwell

CPP's analysis shows the most powerful policy levers potentially lie outside health care and relate to wider social and economic issues, including employment, income, education, housing, air quality, crime and public safety.

A move away from remedial thinking towards preventative thinking – often said, but rarely done – is the first condition for reform. We will present evidence as to how the NHS, under present demographic trends, needs to change from a system mainly set up to treat disease when it arises to one that is mainly set up to maintain health over the course of a lifecycle.[52]

52 See, for example, Michael Marmot's six primary policy recommendations to places in tackling the social determinants of health over the lifecycle: Institute of Health Equity (2010) *Fair Society, Healthy Lives: The Marmot Review.* Available here: http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review/fair-society-healthy-lives-full-report-pdf.pdf. The six policy recommendations are: 1. giving every child the best start in life; 2. enabling all children, young people and adults to maximize their capabilities and have control over their lives; 3. creating fair employment and good work for all; 4. ensuring a healthy standard of living for all; 5. creating and developing sustainable places and communities; and 6. strengthening the role and impact of ill-health prevention.

In summary

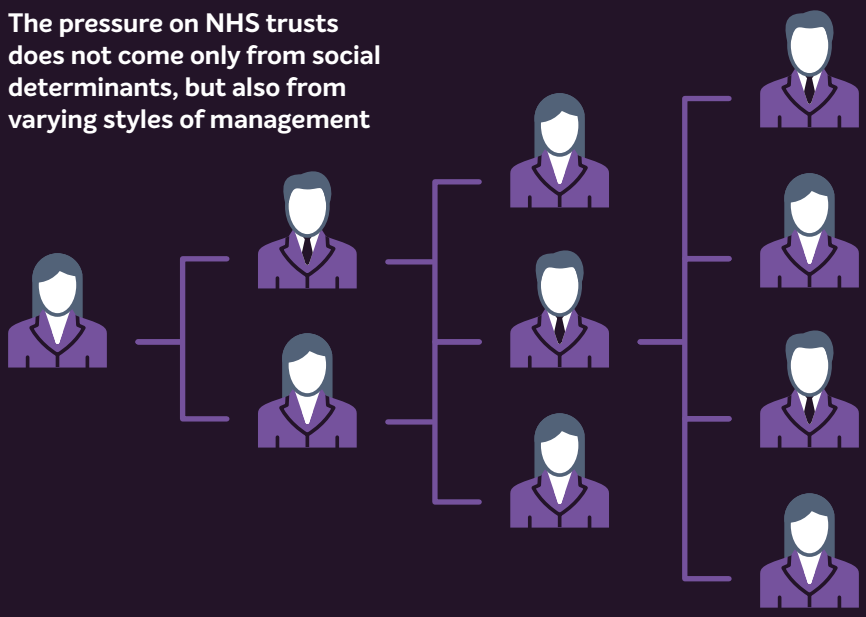
Evidence indicates that social and economic conditions explain up to

90%

of a population's health

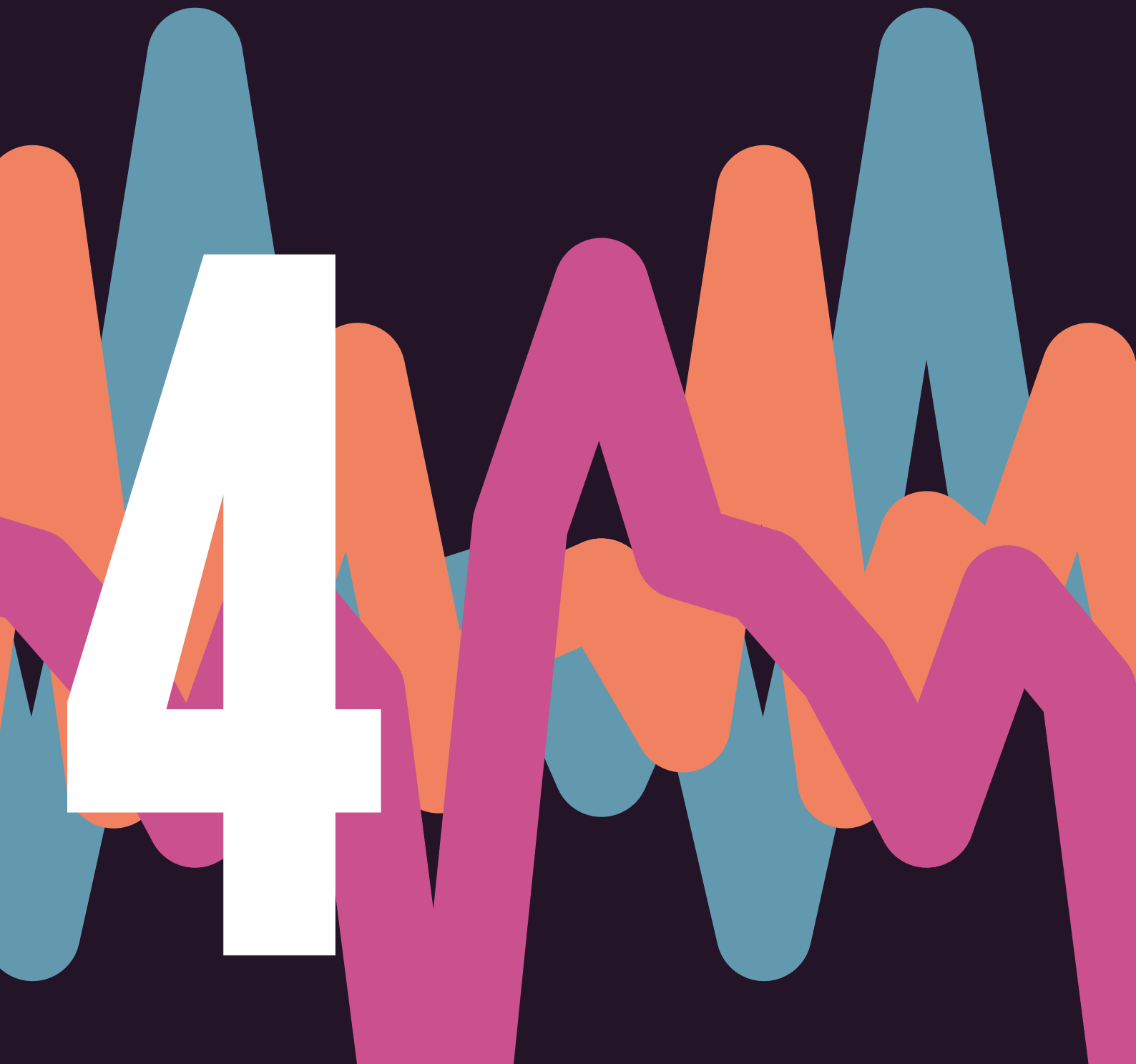
The non-random geographical distribution of health outcomes tells us that the issue is one of place and populations

The pressure on NHS trusts does not come only from social determinants, but also from varying styles of management



The NHS needs to change from a system set up to treat disease when it arises to one that is set up to maintain health over the course of a lifecycle

How do we need to rethink health and social care funding models?



4

This report argues that the current model of health and social care is failing to meet the needs of our changing population and that forecasted demand for services will far outstrip realistic assumptions of NHS productivity savings.

CPP analysis shows that on central projections of ageing, income growth, and rising medical costs, spending pressures with the current set up of both health and social care will grow at over 4% per year for the next 30 years (Appendix 1). Even if central government funding for these services were to double to 2% per year, the divergence in growth rates implies **an annual shortfall of £36bn** (amounting to a cumulative £241bn by 2048/49).

Meeting this financial shortfall will require either: redistributing existing government resources, raising general taxation, establishing a new, hypothecated health tax, introducing a hybrid tax-based/insurance model, increased rationing, other yet more radical ideas (e.g. People's Quantitative Easing) or a combination of more than one of the above.

Over the next 12 months, CPP will explore each of these, and other options, to identify how we can shift to a sustainable, high quality model of health and social care.

Redistributing existing government resources

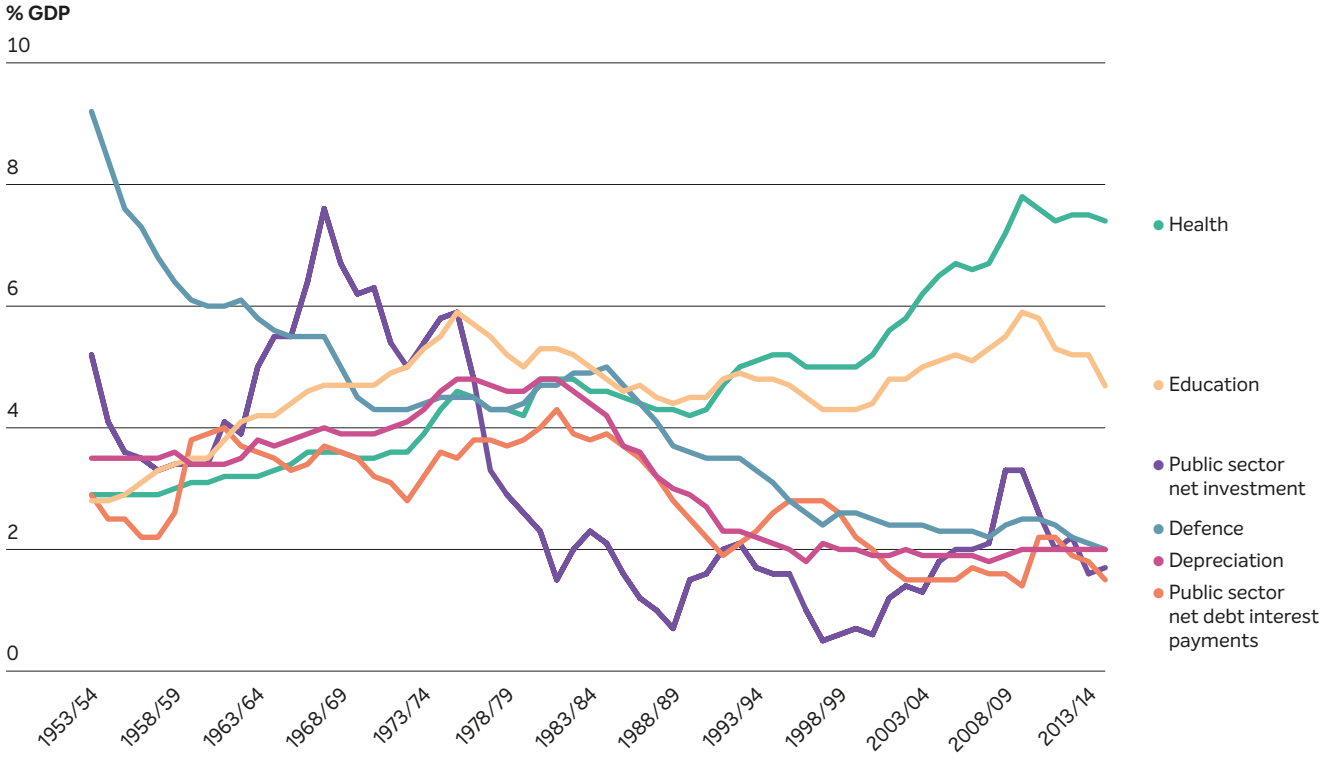
Since its founding in 1948, the NHS has been able to expand and raise standards in health care almost continually for six decades despite tax revenues (as a percentage of gross domestic product (GDP)) remaining flat. Successive attempts to improve efficiency can explain only a fraction of this.

+4.9pp

Spending on health has increased from 2.5% of GDP in 1953 to 7.4% of GDP in 2014

By far the biggest enabler (as fig. 13 shows) has been the redistribution of other public spending, as expenditure on defence, depreciation, net debt interest payments and net investment have witnessed structural decline. Spending on health has gone from 2.5% of GDP in 1953 to 7.4% of GDP in 2014 while spending on defence, for example, fell from 9.2% of GDP to 2% of GDP over the same period.[53]

Fig. 13: Public spending by category



53 We tested the relationship between health spending and defence spending, controlling for population growth, GDP growth, the tax revenue share of GDP, total government expenditure, and private health care expenditure. We found that of all categories defence has the strongest impact on health spending – being both highly significant and able to explain a large share of the increase in health spending. Results available on request. The trend and magnitude of declining defence matches, inversely, the trend and magnitude in health.

That higher health care spending has been funded by declining spending elsewhere raises three issues.

- **Fall in spending on other major categories has hit a lower bound:** defence spending cannot fall below its current 2% of GDP – the NATO minimum – and as tensions between the UK and Russia rise and other concerns, such as cybersecurity challenges, continue to develop, so too will the pressure to maintain, if not increase defence spending. The fall in debt interest is also unlikely to continue in view of higher interest rates and higher national debt in the future. There is little room left for public funding displacement.
- **Other public services can make a credible claim for more money:** compounding the first issue is that there are several other public spending categories that need more money. Unlike health, education spending was not protected from public sector austerity cuts and it has fallen sharply since 2010.[54] The normative choice between spending on health or, say, transport is difficult, but choosing between increases in health or education can be more so. Even if the recent 6.5% pay rise offered to NHS staff signals an end to austere public spending, it is not obvious where new funds should or will be directed.[55]
- **Expectations for health care are ever increasing:** that health care has been able to improve the breadth and quality of its services, at least until 2010, without there being any correspondingly large increase in the overall tax burden has broken the link between what care standards people expect and how much those standards cost. Some surveys have shown that respondents are open to increases in general taxation to support the NHS, but there is a question of magnitude that does not feature in these surveys.[56]

Raising general taxation

If we wanted to fund the shortfall out of general taxation as in the current model, the resulting total tax revenue burden would be the shortfall – £241bn up to 2048/49 – *over and above* the trend level of tax revenue (currently 32.6% of GDP and assuming other forms of public expenditure remain constant). If real GDP grows at trend – 2% per year – then this implies that the tax revenue share will hit 39% by 2048/49 (fig. 14), equivalent to £1,423bn. This would be the highest level on record.

However, increasing revenue through a rise in general taxation could come from a range of sources with varying implications for where – or, more specifically, upon who – the burden would fall. HMRC provides a table of the direct effects of specific tax increases on government revenue.[57] Covering the UK except Scotland, it shows that changing the basic rate of income tax by 1%, for example, is likely to generate an additional £4bn (2018/19). We can use HMRC's figures to measure how large tax increases would need to be to cover the aggregate funding shortfall (tab. 1). For example, if increasing the basic rate of income tax will generate £4bn in 2018/19 then it would need to be raised by 9% (=£36bn /£4bn) to cover the shortfall. This increase is equivalent to an additional tax burden of £964 on the UK median household income.[58]

National Insurance has received attention in this debate recently due to its potential for conversion into a hypothecated tax for health care.[59] Here we see that, on the employee side, covering the shortfall would require increases in the Class 1 main rate of nine percentage points. On the employer side, the Class 1 main rate would need to rise by six to seven percentage points.

Income tax and national insurance hold the most potential since any incremental increase generates large amounts of revenue. Even so, loading the burden onto either one would necessitate large increases. Those increases would be larger still if the burden were loaded onto corporation tax – a 20-percentage point increase. Inheritance tax and the higher capital gains tax rate would need to be raised to impossibly high levels to cover the shortfall on their own.

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54 From 2010/11 to 2014/15, the latest available data point, public expenditure on education as a percentage of GDP dropped by 19%. We projected education spending pressures up to 2038/39 in a similar fashion to our projections of health care spending pressures, modelling education spending as a percentage of GDP as a function of population share of four to 19-year olds (primary and secondary education), 20 to 25-year olds (tertiary education), population and GDP per capita growth (measures of aggregate demand and expectations), and a time trend. We can explain 88 per cent of the variation in education spending with these variables and predict that spending will need to go from 4.7 per cent of GDP to 5.8 per cent of GDP by 2038/39.

55 Campbell, D. (2018) *NHS staff offered 6.5% pay rise over three years if they forfeit day's holiday.* The Guardian. Available at: https://www.theguardian.com/society/2018/mar/08/nhs-staff-set-to-win-65-pay-rise-but-must-forfeit-days-holiday-in-return

56 Evans, H. and Wellings, D. (2017) *What does the public think about the NHS?* The King's Fund. Available at: https://www.kingsfund.org.uk/publications/what-does-public-think-about-nhs#funding

57 HM Revenue & Customs (2018) *Direct effects of illustrative tax changes.* Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/680941/AB17_Direct_effects_of_illustrative_tax_changes_bulletin_Final.pdf. The table is a 'ready reckoner' and does not include Scotland.

58 Median household income of £23,556 gives a tax-free allowance of £11,500 and so a taxable income of £12,056, which multiplied by 8% gives the £964 burden.

59 See, for example: Mason, R. (2018) *Tories urge Theresa May to fund NHS by raising taxes.* The Guardian. Available at: https://www.theguardian.com/society/2018/jan/11/conservatives-theresa-may-nick-boles-fund-nhs-raising-taxes-national-insurance

Fig. 14: Tax revenue as percentage of GDP with shortfall

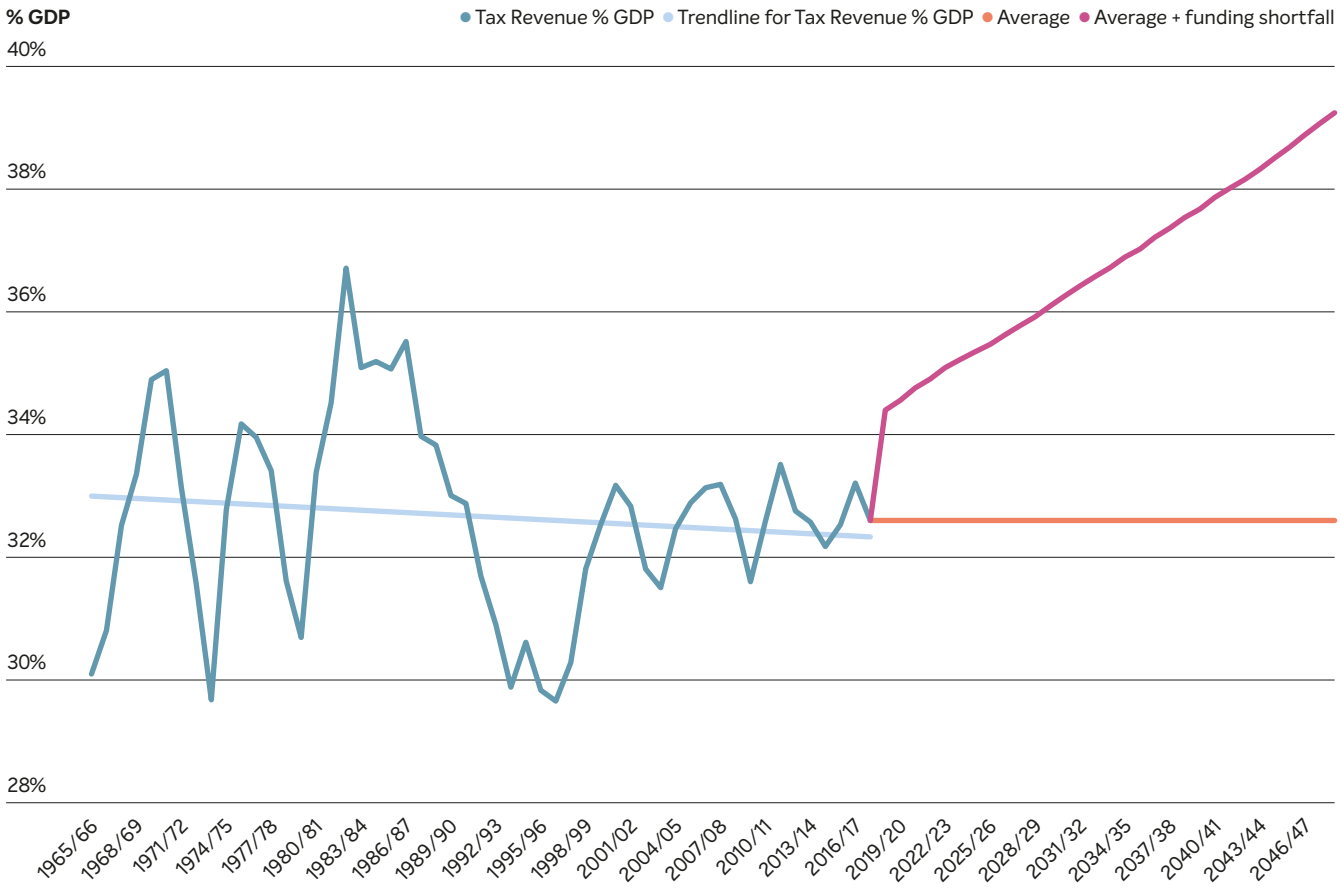


Table 1: Illustrative tax increases needed to fill funding shortfall in 2018/19

	Percentage-point change	Current rate
How many p in £ increase in income tax basic rate?	9	20%
How many percentage points increase in NI Class 1 employee main rate?	9	12%
How many percentage points increase in NI Class 1 employer main rate?	7	14%
How many percentage points increase in corporation tax?	20	21%
How many percentage points increase in standard rate for estates left on death?	689	40%
How many percentage points increase in higher capital gains tax rate?	2,527	20%

Other models

Other means of financing increased health and social care spending could include:

- **Hypothecated tax:** The case for implementing a new hypothecated tax – where revenues are ringfenced for health expenditure purpose – is that it: 1) forces taxpayers to face up to the true cost of their health care and social care and 2) it allows health care and social care funding to be ring-fenced. There are concerns that hypothecation creates an unreliable revenue stream, since ring-fencing restricts opportunities for spending as well as raising revenue.[60]
- **Hybrid Tax/Insurance:** Universal health care can be maintained with an insurance system if, as in France, universal access is guaranteed by schemes for those on low incomes and/or with chronic conditions such as diabetes or AIDs, and vouchers to buy voluntary health insurance. Patients pay an upfront cost at the point of use which is partially reimbursed by the government. The rate of health insurance reimbursement varies across goods and services, allowing the government to make savings. Insurance-based models of health care funding tend to be unpopular in the UK.[61]
- **Rationing:** It is possible to deal with the funding shortfall by adapting the provision and quality of services to a lower level of funding, with strategies ranging from denial of certain treatments, to delay and deterrence (limiting information about treatments), and dilution (same services, but with fewer resources). In practice, tighter rationing is already happening, but it remains politically controversial.[62]
- **Co-payments:** Patients have been asked to contribute to meet NHS costs through additional fees or co-payments for decades. The introduction of prescription charges, for example, was a seminal moment in the early development of the NHS in the 1950s. Today, patients increasingly have the option to pay for access to GP services online or through their mobile phone for a small fee, and other new private and non-profit enterprises and innovations are fast emerging in the health and social care sector. There are concerns increased co-payments could lead to a two tier NHS service, potentially split more along generational lines where younger generations choose to find alternative providers. But a review of co-payments could also extend to the role of – and equity concerns associated with, carparking charges, for example.
- **People's Quantitative Easing (QE):** A state-owned investment bank issues bonds to finance public investment including in health care; the bonds are bought by the Bank of England. It is different to normal QE in that the debt of People's QE would be issued by a national investment bank that issues debt only for public infrastructure. It may weaken the central bank's independence and its focus on infrastructure may be less relevant to a health care service.

60 Appleby, J. (2018) *A dedicated tax to fund the NHS – a zombie policy idea?* The BMJ Opinion. Available at: https://blogs.bmj.com/bmj/2018/03/29/john-appleby-a-dedicated-tax-to-fund-the-nhs-a-zombie-policy-idea/

61 Warner, J. (2015) *Do we want better health care, or do we want to keep the NHS?* The Telegraph, May 8. Available at: https://www.telegraph.co.uk/news/nhs/11590377/Do-we-want-better-health-care-or-do-we-want-to-keep-the-NHS.html

62 Klein, R. and Maybin, J. (2012) *Thinking About Rationing.* The King's Fund. Available at: https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/Thinking-about-rationing-the-kings-fund-may-2012.pdf

Additional funding is not enough

It is important to emphasise that additional funding alone will not suffice. The NHS could buy an additional one million hospital beds, for example, but without the quantity and quality of suitable trained staff fail to reap the benefits of such investment. Similarly, new, increasingly digital, diagnostic and delivery methods have the potential to disrupt traditional models of care entirely.

There is widespread agreement that technology, particularly artificial intelligence (AI), will benefit health care by making research and development more efficient, providing new methods of health care delivery, informing clinical decision-making, and informing patients' choices. In these ways, technology can improve lives and – as the government's industrial white paper hopes – set the UK at the forefront of a growing global market in health care technology.

Global technology trends are developing fast, with younger generations not only expecting – but demanding – services to be delivered online or through other digital means (e.g. wearable technologies). New, often private sector, innovators are already engaging in this space, presenting opportunities to transform approaches to mental, physical and public health care and – crucially – embed the creation of health, rather than the treatment of sickness, at the heart of wider economic and social policy and consumer markets.

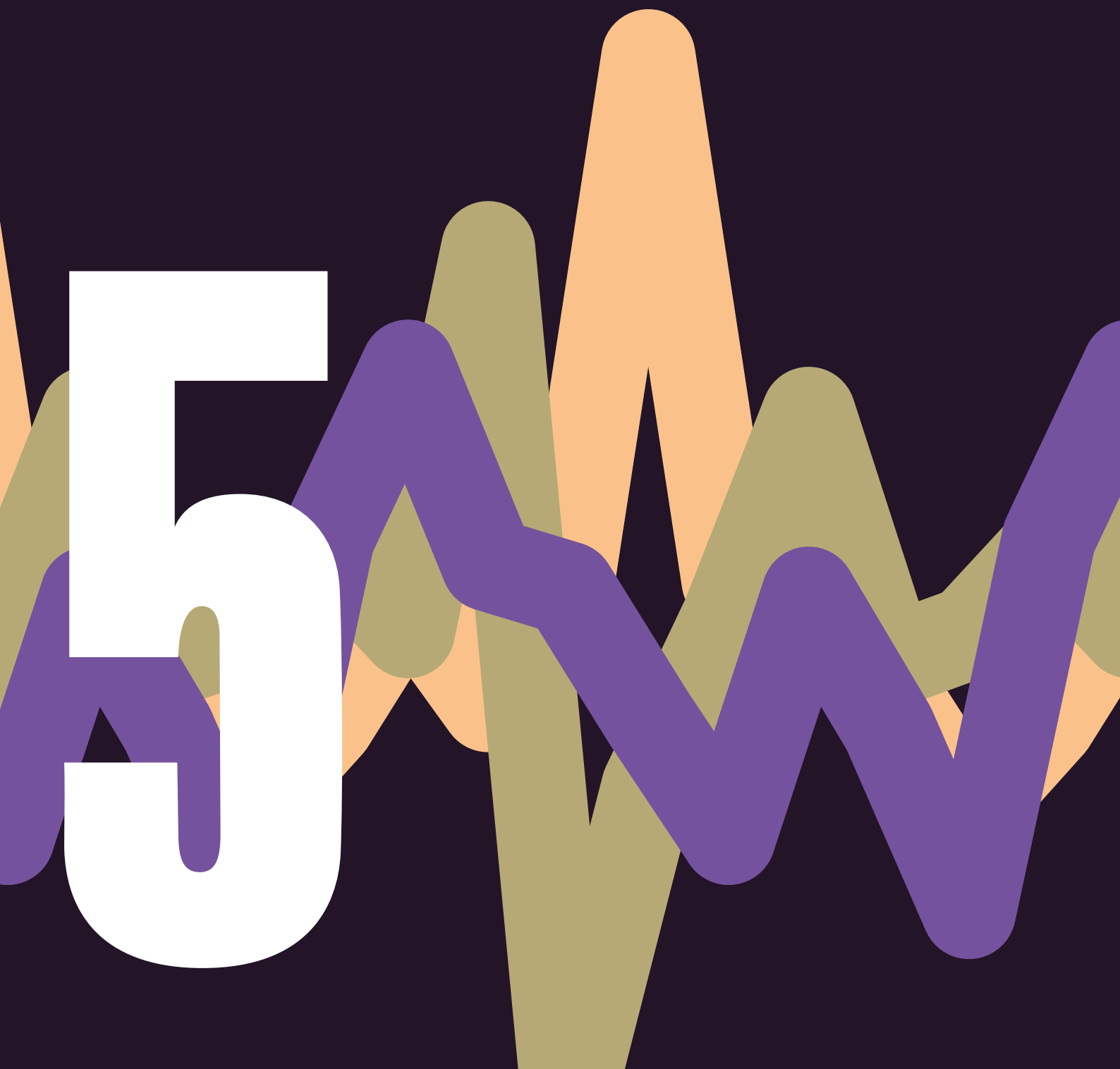
However, the effective and cost-efficient application of advanced technology in health care is dependent on:

1. Public acceptance of advanced technologies like AI playing a role in their care;
2. Widespread consent as to the use of patient data;
3. The NHS being equipped to deploy new technology;
4. The staff being trained in how to use it.

As such, we will continue to grapple at the interface (and sometimes tensions) between traditional biomedical approaches to health care, new technology-enabled diagnostic and delivery models, the role of national and local accountability and early efforts to ground mental, physical and public health within wider economic and social policy.

Over the next 12 months, CPP will look at the impact these trends, challenges and opportunities present for the future funding and system design of health and social care in England. The problems facing health care and social care are big, but the prize – a high quality, productive, truly sustainable health service with equalities for those with physical and mental health conditions and a societal infrastructure that generates and sustains health – is bigger still.

An ambitious programme of research and engagement



Over the coming year, CPP will examine policy options that can bring us closer to a high quality, truly sustainable health service for the future. We differ from many of the other attempts to do this for many reasons:

1. We are grounded in first rate data analysis, led by our team of health economists;
2. We have assembled an authoritative advisory group of clinical and non-clinical professionals (see below);
3. We will run a series of deliberative events involving members of the public to systematically seek their views on the funding compromises that will need to be made; and,
4. We are independently funded without sponsorship or vested interests meaning that we can explore all options, including those with varying degrees of political palatability over the short and longer term.

Timeline and key outputs

The project will run for 12 months, between May 2018 and May 2019, reporting as we head into the first legislative window following the UK's departure from the European Union. Key outputs will include:

- **Deliberative public engagement events (July–October 2018):** To devise and test innovative, practicable solutions.
- **Deep sector engagement (June–November 2018):** With clinicians and policymakers (including via sector events, such as NHS Expo, PHE Annual Conference, as well as CPP's inaugural summit).
- **Political engagement and influencing (September 2018–May 2019):** Including 1:1 meetings and party conference fringe events.
- **Edited collection of future scenarios (May 2019):** Written by leading international thinkers and health professionals setting out more radical policy proposals, costed by CPP.
- **Final report (May 2019):** Including primary recommended policy option, costed with outline transition plan and accompanied by video footage/vox pops of engagement activity.

We are not alone in trying to grapple with the question of NHS sustainability. As one of the foremost issues on the domestic policy agenda, several other think tanks and health sector organisations are also considering how to meet the scale of the funding challenge – notably, the NHS Confederation (in partnership with the IFS) and the IPPR Darzi Commission. With cross-party momentum also building in Parliament for a hypothecated tax 'top up' solution, the policy landscape is evolving rapidly.

The Centre for Progressive Policy seeks to engage with other initiatives to ensure we add value and feed into emerging political debate. But our focus will also extend to considering a range of more ambitious financial, structural and operational policy options for the longer term.

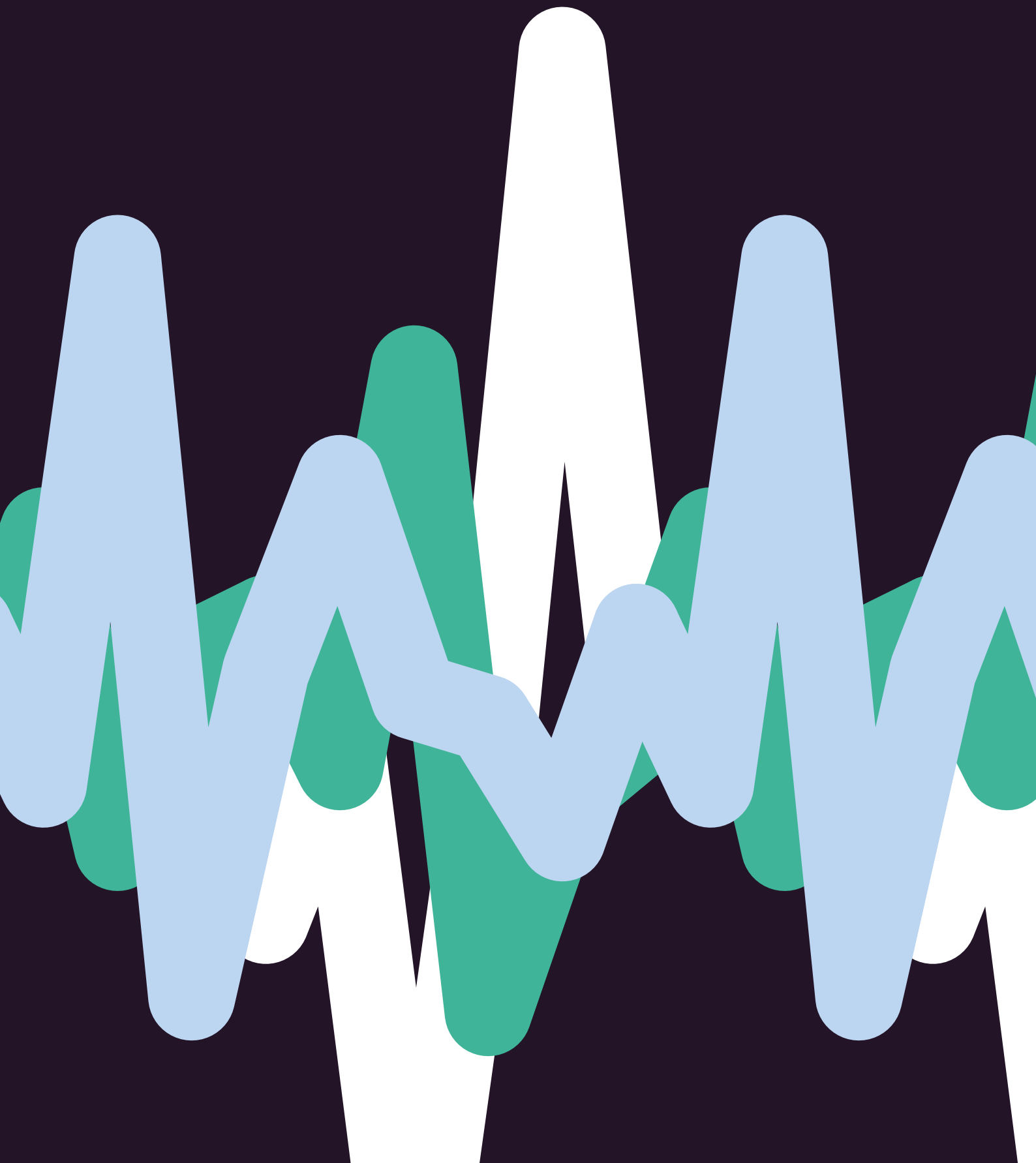
We will be supported in our work by ZPB Associates, a boutique health consultancy and other specialist researchers, as required. Guided by our advisory group, we are well-placed to make a high quality, independent contribution to the debate.

Advisory group

CPP's authoritative advisory group of clinical and non-clinical professionals includes:

Professor Mike Bewick, former Deputy Medical Director, NHS England and Independent Chair Mid and South Essex STP Joint Committee
Jo Bibby, Director of Strategy, the Health Foundation
Sir Cyril Chantler, Honorary fellow and emeritus chairman UCLPartners academic health science partnership
Maureen Dalziel, former Chair, Barking, Havering and Redbridge University Hospitals NHS Trust
Pam Garside, Fellow, Judge Business School, Cambridge University
Sir Ian Gilmore, Professor, University of Liverpool and former President, Royal College of Physicians
Peter Kopelman, Emeritus Professor of Medicine, Former Principal, St George's, University of London
Alex Kafetz, Managing Director, ZPB Associates and Independent Member of the National Information Board
Tim Kelsey, CEO, Australian Digital Health Agency
Stephen K. Klasko, M.D., M.B.A., President and CEO, Thomas Jefferson University and Jefferson Health
Dame Julie Moore, Chief Executive, University Hospitals Birmingham
Margaret Willcox, Past President, ADASS
Professor Sir Mike Richards, former Chief Inspector of Hospitals, Care Quality Commission
Professor Sir Terence Stephenson, Chair, General Medical Council and Nuffield Professor of Child Health, Institute of Child Health, UCL
Charlotte Alldritt, Director, Centre for Progressive Policy

Appendices



Appendix 1: Projected health and social care spending

CPP estimated health care demand based on current costs – real public expenditure on health care per capita[63] – from 1953/54 to 2014/15 as a function of the following variables:

- **Population ageing:** Measured as the population share of people who are 65 years or older, multiplied by life expectancy at 65.[64] It is not only the stock of elderly people that exerts pressure of health care but the length of time they spend in old age.
- **Relative prices:** Increasing relative health care costs are generally accepted to exert pressure on health care demand in the future through, for example, lower productivity growth in the health care sector relative to the rest of the economy. Relative prices are the difference between a health care price index, a weighted sum of pay and price indices in the public health care sector, and inflation implied by the GDP deflator.[65]
- **Income:** One of the most robust empirical findings in health economics is a positive income elasticity – that is, the demand for health care rises with income. When health care is publicly provided, this income effect reflects people's growing expectations of what their health care services should provide. As a person's income grows, they become less willing to put up with the discomfort of problems like osteoarthritis of the hip – they demand a hip replacement operation. Income is measured with real GDP per capita.[66]

All three variables had expectedly positive and highly significant effects on health care demand. Together they can explain 95% of the variation in real health care spending per capita.[67] Since 1953/54, we can attribute 33% of the growth in health care demand to population ageing, 11% to relative inflation, and 56% to income growth. Applying these estimated effects to projections of population ageing, relative inflation, and income up to 2048/49, we project real health care spending per capita up to that date, then multiply it by total population to arrive at a UK-level real health care demand series. This series grows at 4.2% per year, putting it in line with other projections (fig. 15).

In money terms, with constant 2015/16 prices, the range of estimates imply that UK health care demand will go from £124 bn in 2017/18 to between £288bn (NHS) to £457bn (historical average growth) by 2048/49. Our estimate is £425bn. Assuming 2% per year GDP growth (the trend since 1980), this figure implies that public health spending as a percentage of GDP will go from 7.0% today to 11.7% by 2048/49. Within the OECD now, the highest government/compulsory expenditure on health as a percentage of GDP is Germany's at 9.5%, a figure that rises to 11.3% when voluntary/out-of-pocket expenditure is included.[68]

While the Office for Budget Responsibility (OBR) similarly models health care spending pressure as a function of health status at given ages, income (a reflection of expectations), and health care inflation, it assumes – rather than estimates – an income elasticity of 1. Its central estimate is a growth rate of 4%.[69] The Organisation for Economic Cooperation and Development (OECD) provides an econometric estimate, using similar determinants, but across an OECD sample of countries between 2006 and 2010. It arrives at an implied growth rate of 3.4%.[70] The 2014 NHS Five Year Forward View uses age and gender-specific care costs to estimate a growth rate of 2.7 to 2.8 per cent, but its estimates are now also outdated.[71]

63 From IFS public spending data bank. Underlying population data from ONS. Deflated to 2015/16 prices using the GDP deflator. Dependent variable mean £919 and standard deviation £591.

64 Both historical and projected population data from ONS.

65 The health indices are from the Department of Health and the GDP deflator from IFS data. To arrive at relative prices before 1975 and after 2015, the limits of the health index data, we modelled the weighted health price index as a function of a time trend and the log GDP deflator. Adjusted-R2= 0.52; N=41; residual standard error=4.41% (against mean of 11.4%); overall F-statistic=22.8, significant at 1%.

66 IFS GDP and GDP deflator data. Population data from the ONS.

67 The regression also includes a time trend and constant term. Adjusted-R^2= 0.95; N=62; residual standard error=£132.9 against mean of £919; overall F-statistic=389, significant at 1%. Population ageing t-ratio=2.03; 3.90 for relative prices; and 6.07 for real GDP per capita.

68 OECD (2018) *Health spending (indicator).* Available at: https://data.oecd.org/healthres/health-spending.htm refers to 2016 data.

69 Licchetta, M. and Stelmach, S. (2016) *Fiscal sustainability analytical paper: Fiscal sustainability and public spending on health.* Office for Budget Responsibility. Available at: http://obr.uk/docs/dlm_uploads/Health-FSAP.pdf

70 De la Maisonneuve, C. and Oliveria Martins, J. (2013) *A Projection Method for Public Health and Long-Term Care Expenditures.* OECD. Available at: http://www.oecd-ilibrary.org/economics/a-projection-method-for-public-health-and-long-term-care-expenditures_5k44v53w5w47-en

71 NHS England (2016) *Evidence submitted to Health Select Committee on technical modelling and scenarios.* Available here: http://www.parliament.uk/documents/commons-committees/Health/Written%20evidence/CSR0107-NHS-England-TT.pdf

CPP has estimated social care demand based on current costs – real public expenditure on social care[72] – from 1994/95 to 2015/16 as a function of the following variables:

Health care demand: much of the demand for social care and health care comes from the same sources- population ageing, income growth, and rising relative costs, all of which are reflected in the CPP estimated health care series, used to project the demand for social care here.

Employment rate: the relationship between social care and health care is modified with the OBR's central projection of the employment rate for the UK.[73] This variable has specific implications for social care, which is often informally provided. If the employment rate rises, and so the supply of informal labour shrinks, the availability of informal care drops and demand on social care will rise.

Both variables had expectedly positive and highly significant effects on social demand. Together they can explain 91% of the variation in real social care spending.[74] Since 1994/95, 14% of the growth in social care demand is due to a growing employment rate and 86% to the demand reflected in real health care demand. Applying these estimated effects to the OBR's employment rate projections and our real health care demand projections gives real social care demand up to 2048/49. This series grows at 4.6% per year, putting it in line with other projections (fig. 16).

In money terms, with constant 2015/16 prices, the range of estimates imply that UK social care demand will go from £19bn in 2017/18 to between £57bn (OECD) and £91bn (OBR) by 2048/49. Our estimate is £77bn. Assuming 2% per year GDP growth (trend since 1980), this figure implies that social care spending as a percentage of GDP will go from 1% today to 2.1% by 2048/49. Across the OECD today, the highest government/compulsory expenditure on care as a percentage of GDP is Norway's at 2.7%, a figure that rises to 2.9% when voluntary/out-of-pocket expenditure is included.[75]

Fig. 15: Health care spending pressure

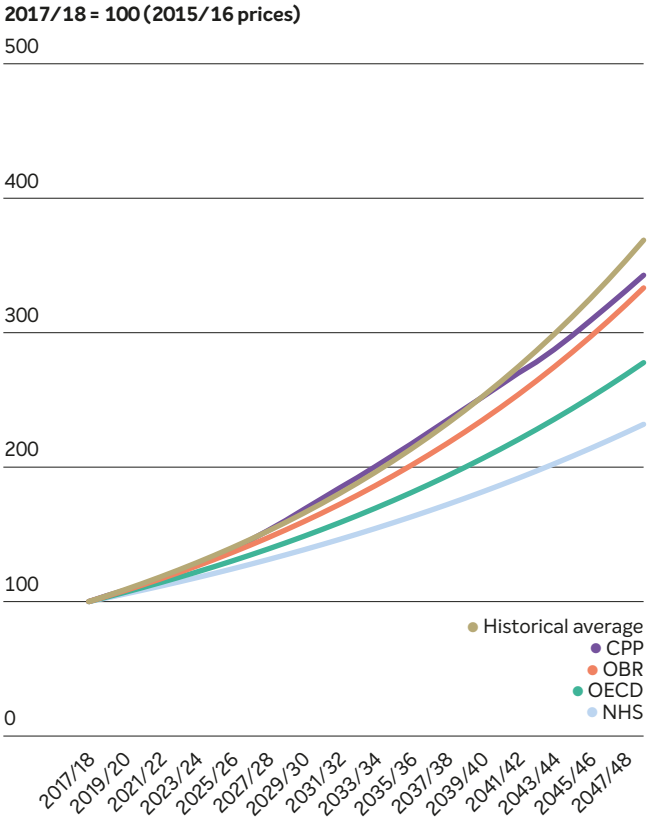
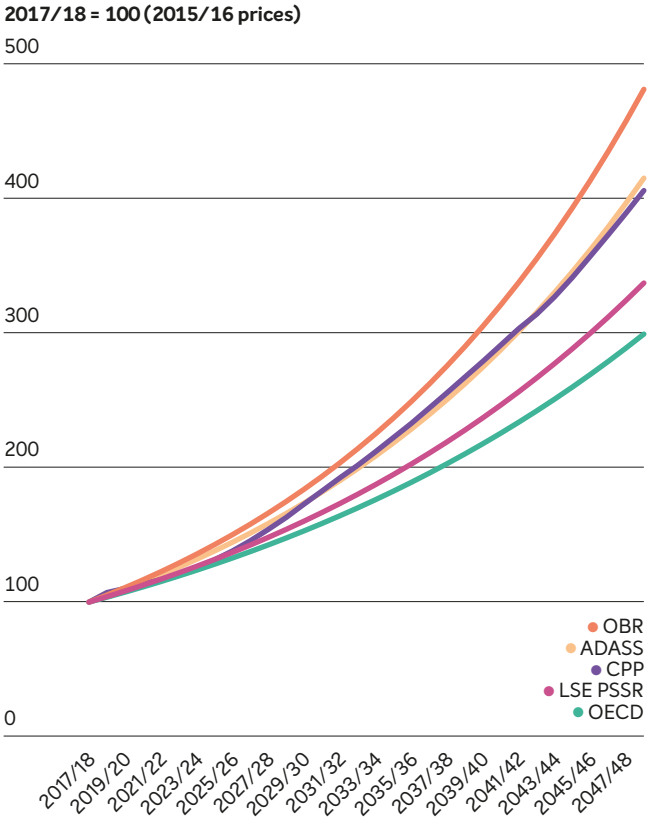


Fig. 16: Social care spending pressure



72 The Health Foundation provides England-only estimates of nominal spending on personal adult social services (Sheet2) from 1994/95 to 2015/16. Sheet15 provides UK-wide figures from 2015/16 onwards (using the LSE Personal Social Services Unit projected growth of 4 per cent per year). We assume the gap between England and UK for 2015/16 – 11.5 per cent – applies to all other years in the England-only series. We then deflated the series to 2015/16 prices using the GDP deflator. See: The Heath Foundation (2017) *Health and social care funding explained.* Available at: http://www.health.org.uk/sites/health/files/FundingExplainedDataPack.xlsx

73 Office for Budget Responsibility (2017a) *Fiscal sustainability report – January 2017.* Available at: http://obr.uk/fsr/fiscal-sustainability-report-january-2017

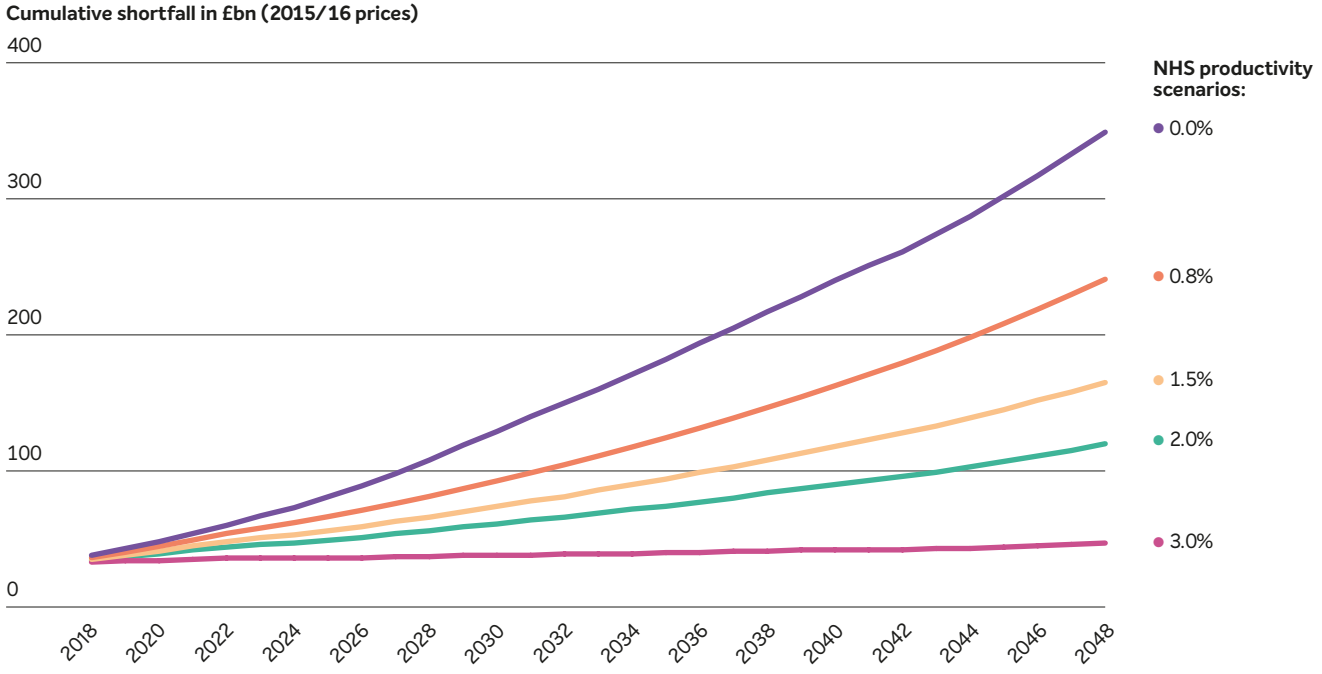
74 The regression also includes a time trend and constant term. Adjusted-R^2= 0.91; N=22; residual standard error=£0.9 billion against mean of £17.2 billion; overall F-statistic=125, significant at 1%. Real health care demand t-ratio=8.45 and 4.12 for the employment rate.

75 OECD (2018) op cit., refers to 2016 data.

The CPP approach is similar to the OECD's econometric approach, which models social care demand as a function of health care expenditure, income, and the employment rate, but the OECD study is again based on an international panel covering 2006 to 2010.[76] It estimates an implied growth rate of 3.6%.[77] The OBR models social care spending pressures as a function of population ageing, income, the prevalence of chronic conditions, and relative inflation of social care price – mainly pay, as it is a labour-intensive sector – for their central projections.[78] The growth rate implied by their projected series is 5.2% per year above inflation. The Association of Directors of Adult Social Services (ADASS) provides figures of 'cost pressures' on social care between 2010/11 and 2014/15 that imply a growth rate of 4.7% year above inflation, but it is not clear how this is calculated or whether it holds past 2014/15.[79] The London School of Economics Personal Social Services Research Unit projections are perhaps the most robust, being based on trends in disability and mortality, the unit costs of care, ageing, and household composition, but stop at 2035.[80] They estimate a growth rate of 4%, which is used by the King's Fund, Health Foundation, and Nuffield Trust in their joint 2017 Autumn Budget statement.[81]

The funding shortfall is the amount of extra government funding the health care and social care sector needs to provide a constant quality of care to a growing and ageing population, assuming trend productivity in health care (0.8%) and trend growth in government funding (2%) (Appendix 2).[82] It shows that the extra funding needed will hit a cumulative £241bn by 2048/49 (fig. 17). Even under the most optimistic NHS productivity scenario – 3% per year – the cumulative shortfall will reach £47bn by 2048/49.

Fig. 17: Health and social care funding shortfall



76 De la Maisonneuve, C. and Oliveria Martins, J. (2013) op cit.
77 Its estimate is based on a panel of OECD countries over 2006 to 2010 and finds that the UK's spending pressure on health care will rise to 1.1 per cent of GDP by 2030, which implies a growth rate of 3.6 per cent per year above inflation using the OBR's GDP data.
78 Office for Budget Responsibility (2017b) *Health and adult social care services.* Available at: http://obr.uk/docs/dlm_uploads/Healthandsocialcare.pdf
79 Directors of Adult Social Services (ADASS) and Local Government Association (LGA) (2015) *Adult social care, health and wellbeing: A Shared Commitment: 2015 Spending Review Submission.* Available at: https://www.adass.org.uk/media/4217/spending-review-2015-joint-adass-lga-submission.pdf#page=14. See table 1. Figures are provided in nominal terms and imply a growth rate of 5.4 per cent per year. We adjusted them for inflation using the IFS GDP deflator, arriving at a growth rate of 4.7 per cent per year.
80 Wittenberg, R. and Hu, B. (2015). *Projections of Demand for and Costs of Social Care for Older People and Younger Adults in England, 2015 to 2035.* Personal Social Services Research Unit. Available at: https://www.pssru.ac.uk/pub/DP2900.pdf
81 Nuffield Trust, the Health Foundation and The King's Fund (2017) *The Autumn Budget: Joint Statement on health and social care.* Available at: https://www.kingsfund.org.uk/sites/default/files/2017-11/The%20Autumn%20Budget%20-%20joint%20statement%20on%20health%20and%20social%20care%2C%20Nov%202017.pdf
82 The 2017 Autumn Budget planned that health care spending will go from £124 billion in 2017/18 to £128 billion in 2022/23. This implies *nominal* growth of 0.6% per year but reflects an exceptional low-spending period.

Appendix 2: NHS Productivity

The FYFV estimated grossly different shortfalls by 2020/21 under different NHS efficiency savings scenarios (tab. 2).

The £8bn represents efficiency savings of 2–3% per year, which the 2015 Carter Review of productivity in NHS hospitals estimated to be achievable.[83] Seizing on the £8bn figure, the government's Spending Review of 2015 found £8bn of "extra" spending for the NHS, expecting the residual shortfall of £22bn to come from that 2–3% per year efficiency saving.

The most reasonable rate is in fact the 1996 to 2015 average: 0.8%. The rates implicit in the government's spending plans have occurred too infrequently in the past to be reasonable. Recent rates, covering the austerity period from 2010, reflect sharp real-terms cuts to the input side which would be difficult to repeat now.

Table 2: The NHS funding shortfall under different efficiency saving scenarios[84]

Shortfall by 2020/21 (£ bn)	...with efficiency savings (% p.a.)
30	0
21	0.8
16	1.5
8	2–3

There are only four years in which efficiency savings fell within 2–3%;[85] 3%, was achieved once – in 2011 and is the maximum rate ever achieved. The minimum rate was hit in 2002: -2.2%. It is also difficult to plan large sums of government expenditure on such a volatile measure. More volatility comes from the input side.[86] The demand for health care is structural, due to slow-moving, one-directional trends like population ageing. The input side is determined by policymakers who can control what goes into the health care sector – staff pay, equipment and drug prices – more than they can control the demand for its services or its output – measured by the number of procedures, their health gains, and unit costs. When NHS productivity is a policy focus, it is not unreasonable to assume that greater attention will be paid to the input side – i.e. to cutting costs.

83 Carter, P. *Operational productivity and performance in English NHS acute hospitals: Unwarranted variations.* Executive Summary. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/498107/Carter_Review_-_executive_summary.pdf

84 2020/21 prices. Assumes NHS funding rises in line with inflation but no more than that. Source: NHS Five Year Forward View, December 2014.

85 Office for National Statistics (2017) *Volume growth, contributions to growth and expenditure shares for public service healthcare quantity output by component.* Available at: https://www.ons.gov.uk/economy/economicoutputandproductivity/publicservicesproductivity/datasets/volumegrowthcontributionstogrowthandexpendituresharesforpublicservicehealthcarequantityoutputbycomponent

86 Input index has a standard deviation of 1.9% versus the output's 1.6%.

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About the Centre for Progressive Policy

The Centre for Progressive Policy is a new think tank committed to making inclusive economic growth a reality. By working with national and local partners, our aim is to devise effective, pragmatic policy solutions to drive productivity and shared prosperity in the UK.

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