Beyond the NHS

Addressing the root causes of poor health

June 2019
The Centre for Progressive Policy (CPP) is a 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.

Given the importance of health for inclusive growth, CPP has undertaken a major 12-month inquiry into health and social care in England. This is the final report, setting out our recommendations to deliver a holistic approach to health. Guided by an authoritative group of clinical and non-clinical advisors, the inquiry has considered how best to deliver health in the broadest sense - going beyond the reach of the NHS and healthcare and towards joined up health, economic and social policy at national and local level to drive better population health.

Full acknowledgments on page 51.
Beyond the NHS: Addressing the root causes of poor health
Executive summary
As a country we are still overly preoccupied with cure rather than prevention and it is leading to an inefficient allocation of public spending and stagnating health. There is an urgency to address the root causes of poor health and this can only be achieved by tackling the social determinants. In 2018, the National Health Service (NHS) received a new financial settlement and in 2019 set out its Long Term Plan, which established how healthcare and more specifically curative and palliative medicine will be delivered. By 2036-37, a quarter of all public spending will be for health, of which the clear majority is for the NHS. This final report in the Centre for Progressive Policy’s (CPP) year long inquiry into the future of health and social care in England argues a radical change of direction is required and focuses on how to develop and deliver a social model of health.

The case for change

- **Lost lives:** Lives are being significantly shortened by socioeconomic inequality. Based on the assumption that everyone could live as long as those in the least economically deprived areas, CPP estimates that for England’s population today, almost 80m life years will be lost, 1.5 years per person.
- **The social determinants:** Breaking this down, 30m of these years can be explained by differences in education, 18m by differences in disposable income, 15m by employment, and 8m each by crime and housing.
- **Impact on healthy lives:** Social deprivation not only affects how long people live, but also how healthy their life is. Equivalent analysis of healthy life expectancy estimates 170m years of healthy life are being lost, or 3.2 years per person.
- **The narrow influence of healthcare:** Healthcare is only responsible for between 15% and 43% of health outcomes. The social determinants of health – such as income, employment, education, housing and crime - account for a far larger share of health outcomes. Each exhibit significant variation both between and within local areas.
- **The importance of social spending:** New CPP analysis of 35 OECD countries since 1980 shows that those countries which increased their spending on social protection and education as a proportion of GDP also experienced improvements in health (measured in terms of life expectancy and infant mortality). When breaking down social spending by component, we find that incapacity, old age, unemployment and housing support are all positively correlated with improved life expectancy. Increased spending on Active Labour Market Policy (ALMP), housing and old age spending are all correlated with reduced infant mortality. Yet in England, social protection and education funding has been cut relative to health spending.
- **Lack of health prevention budget:** Health spending has continued to rise in real terms, yet little of the overall health budget is dedicated to prevention (circa 5%) and even less to addressing the social determinants of poor health.
- **Underfunded socio-economic determinants:** The evidence base supports social and economic determinants as the most significant influencing factors on the patterns and prevalence of ill health in populations and yet it remains chronically under-valued.

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1 Figures based on OBR 2018 Fiscal Sustainability Report – health spending as a proportion of total non-interest spending.

**80m**

It has been estimated that for England’s population today, almost 80m life years will be lost due to socioeconomic inequality.

**170m**

Social deprivation not only affects how long people live, but also how healthy that life is. Analysis of healthy life expectancy estimates 170m years of healthy life are being lost.
The current public policy vacuum on social determinants

- The Health and Social Care Act 2012 and the Public Services (Social Value) Act 2012 put emphasis on health inequalities and the wider social impacts of health procurement, but there remains confusion over interpretation and implementation while specific health inequalities targets have been abolished.
- The complex web of health institutions and structures at local and regional level make it difficult to determine who is responsible for addressing the root causes of poor health. Previous CPP analysis has shown how this can lead to unplanned hospitalisations and delayed transfers of care.3
- Local authorities, who are best placed to tackle social determinants, have seen their overall budgets cut substantially. And despite taking on responsibility for public health, this too has experienced significant funding cuts.
- The NHS Long Term Plan places strong emphasis on health inequalities in terms of access and outcomes, but there is only limited discussion about prevention and, notably, no reference to social determinants.
- The NHS’s role as an ‘anchor’ institution is referred to, but no concrete recommendations are made. CPP analysis shows that, on average, the health and care sector accounts for a larger share of local area output in deprived places, so its role in terms of employment and procurement will be particularly important in economically-disadvantaged areas.

Key actions needed to deliver a social model of health

- Strengthening the role of the Chief Medical Officer (CMO) as it relates to social determinants and making the role accountable across government could help champion these issues.
- Raising health spending at the expense of other government functions is inefficient and fiscally unsustainable. The Office of Budget Responsibility (OBR) should conduct a rigorous assessment of the impact of non-health spending on health outcomes as part of a broader assessment of the sustainability of health and social care funding.
- Embedding social determinants is needed in the implementation of the NHS Long Term Plan. In the short to medium term, there is an opportunity to consider how and whether interventions that seek to address social determinants could be included in the menu of options currently being drawn up by NHS England, Public Health England (PHE) and others that if adopted, devised and delivered locally would contribute to the goal of reducing health inequalities.
- Within the NHS prevention budget, money should be ring-fenced for addressing the social determinants of health and progress should be measured over the long term (five plus years). Long term evaluations are more likely to reflect the true impact.
- As a major UK employer – particularly in deprived places – the NHS should leverage its role and remit as an anchor institution to contribute to health improvements. Examples in Preston and other areas show that it is possible to transform procurement and employment practices in anchor institutions to the benefit of local economies, and other areas can learn from this.
- To strengthen their ability to deliver place-based population health, Directors of Public Health must be afforded a significant role in the development and delivery of the Integrated Care Systems (ICSs). This, in combination with an NHS that is increasingly aligned with addressing the root causes of poor health, would help embed the importance of tackling social determinants at a national, regional and local level across a broad range of health policymaking and delivery.
- Develop and learn from emerging whole systems approaches to health in large and complex local areas. Examples in Greater Manchester, Coventry and Newham show how to build the necessary mechanisms for leadership, accountability and collaboration to overcome the significant coordination challenges posed by fragmented systems. Moreover, where possible places should seek opportunities to reduce complexity and geographic fragmentation within and across their health systems.
- Promote and foster initiatives that aim to provide collective control of health through co-production and community engagement, which in turn increase social capital and connectedness in communities.

Note on terminology

Throughout the report, we have endeavoured to use health in the widest definition of the word, taking this beyond an absence of disease and as a descriptor for a holistic approach to health. We use the neologism ‘healthcare’ when referring to ill-health or the health sector. We think it is a useful distinction to be made, and the hypotheses and recommendations should be considered using these definitions.

Introduction
This inquiry has looked beyond healthcare and the NHS, to investigate the social and economic conditions that can cause ill health in the first place. Our first report, *Diagnosis critical*, set out the scale of the challenges facing the health and social care system and the role of place in addressing health inequalities. Our interim report, *Beyond sticking plasters*, highlighted the importance of social and economic factors in driving health inequalities, while illustrating the deeply-fragmented nature of many local health systems.

This final report builds on these publications to focus on how we can practically address the root causes of the nation’s stagnating health. It is framed within the context of rising health demand, a stretched NHS and a social care system at the point of collapse. Since our first report, there has been a reported decrease in life expectancy in England, with people living in poorer places seeing particularly sharp falls. The NHS has been given more resources, with an extra £20bn by 2023, but this is unlikely to be sufficient to both meet growing demand and address the health inequalities outlined by this inquiry. The NHS Long Term Plan published earlier this year, gives cause for hope, but there is only so much that the health service can achieve on its own.

**About this report**

It has been estimated that healthcare is only responsible for between 15 and 43% of health outcomes. In this report we focus our attention on the social determinants of health, as research consistently indicates that these account for a far larger share of health outcomes.

Dahlgren and Whitehead’s (1991) model of health determinants is one of the most cited in the field and illustrates the interplay between the social and economic environment, the physical environment and a person’s individual characteristics and behaviours (see Fig. 1).

The relationships between socioeconomic factors, health behaviours and health outcomes are complex and multifaceted. To simplify, subgroups of the population who are most deprived, tend to live and work in inferior environments and have greater exposure to risk factors for disease, including chronic stress. This has a detrimental impact on their health and ultimately leads to shorter lives.

Health interventions have historically focused on behavioural change for high risk groups, but they are often ineffective because these individuals are not always in control of the factors that make them ill and they respond unconsciously to environmental cues. For instance, neighbourhoods with high levels of deprivation and a high concentration of corner shops have been linked to higher tobacco use. Facilitating healthier behaviours therefore requires delivering more supportive environments that make the healthy choices easier.

Fig. 1: The Dahlgren and Whitehead model of health determinants

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6 Institute of Health Equity (2017) op cit.
The seminal Marmot Review, *Fair Society Healthy Lives*, was published in February 2010, and concluded that reducing health inequalities would require action on six policy objectives:

1. Give every child the best start in life.
2. Enable all children, young people and adults to maximise their capabilities and have control over their lives.
3. Create fair employment and good work for all.
4. Ensure healthy standard of living for all.
5. Create and develop healthy and sustainable places and communities.
6. Strengthen the role and impact of ill-health prevention.\(^9\)

This report argues for a holistic approach to the social determinants of health in line with the above policy objectives. While acknowledging the role of the health and social care system, this report looks beyond the NHS to explore and examine a broader range of actors, influencers and institutions which have the potential to support and progress the agenda on social determinants at the national, regional and local level.

The evidence generated from the year-long inquiry has provided a compelling evidence base that future actions are required, and that we need to move faster and further than before. In **Chapter 1**, we set out the case for change, exploring why there is a burning platform to address social determinants, taking stock of worrying trends in health outcomes, including a stalling of life-expectancy improvements and widening of place-based inequalities. **Chapter 2** addresses the current policy and legislative landscape and assesses why, given the overwhelming evidence of the importance of social determinants, progress has stalled. In this context, **Chapter 3** presents a compelling vision of how to develop a social model of health and highlights promising interventions at the national, regional, local and community level.\(^{10}\)

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\(^{10}\) While we focus primarily on action required within England, we will also, where appropriate, look at trends and solutions within a UK context.
Beyond the NHS: Addressing the root causes of poor health
The case for change
The urgent need for a renewed focus on social determinants

It is now 10 years on from the Marmot Review, which first brought these ideas into the policy mainstream, and we have found little has changed other than the increasing unsustainability of the current system.

The evidence base clearly supports the importance of social and economic factors on the patterns and prevalence of ill health. Despite this, it remains the neglected driver of health. As we will explore in more detail in Chapter 2, it is both surprising and counter-intuitive that social determinants have not been afforded the policy priority they clearly demand.

First, we look at the current situation of health inequalities, social determinants and the spending decisions that contribute to them.

Health improvements are stalling

For the first time in over a century, barring world wars and flu pandemics, life expectancy has stalled. A child born today can expect to live a full year less than they would have done if previous improvements had continued (see Fig. 2).\(^{11}\) This cannot be dismissed as an international trend – the UK has suffered a more pronounced slowdown than European counterparts.\(^{12}\) Whilst one-off factors, such as the flu pandemic of 2015, partly explain short-term fluctuations, the persistence of the slowdown suggests something more structural is at play.

Health inequalities are rising

The slowdown in overall health improvement is driven by widening health inequalities. The most deprived individuals, whose life expectancy was already lowest, are seeing the least improvement. For the most deprived women, life expectancy is falling. Meanwhile, the rich live increasingly long lives.

Wide inequalities across place also remain. Male life expectancy in Glasgow is 10 years less than it is in Hart, in Hampshire. This figure is unchanged from when the Marmot Review was published. For women, the gap between the local authorities with longest and shortest life expectancy has slightly increased since 2010. In addition to life expectancy, the Department of Health and Social Care (DHSC) has found large and growing place-based inequalities across 15 indicators of public health.\(^{13}\)

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\(^{14}\) Source: CPP analysis of ONS (2018) op cit.
Lives shortened by socioeconomic inequality

The link between health inequalities and social determinants is long established. CPP analysis shows that the majority of inequality in life expectancy between areas can be explained by five social determinants: employment, income, education, housing and crime. These differences are having very real effects. Based on the simple assumption that everyone could live as long as those in the least economically deprived areas, we estimate that almost 8cm life years are being lost to the people of England, 1.5 years per person. Breaking this down, 30m of these years can be explained by differences in education, 18m by differences in disposable income, 15m by employment and 8m each by crime and housing. Social deprivation not only affects how long people live, but also how healthy their life is. Equivalent analysis of healthy life expectancy estimates 170m years of healthy life are being lost.

Different places have different problems which in turn need different solutions. We have therefore used our analysis to look at which social determinants might be harming health outcomes in different areas. Fig. 3 shows the five local authorities most affected by each social determinant. Within each of these local authorities there will be particular neighbourhoods where social deprivation, and life lost as a result of it, is much greater.

CPP analysis shows that the majority of inequality in life expectancy between areas can be explained by five social determinants: employment, income, education, housing and crime.

**Fig. 3: The effects of social economic deprivation on life expectancy in the most affected local authorities**

<table>
<thead>
<tr>
<th>Number of life years lost per person</th>
</tr>
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<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>0.3</td>
</tr>
<tr>
<td>0.6</td>
</tr>
<tr>
<td>0.9</td>
</tr>
<tr>
<td>1.2</td>
</tr>
<tr>
<td>1.5</td>
</tr>
<tr>
<td>1.8</td>
</tr>
</tbody>
</table>

- **Education**
  - 1.8 in Great Yarmouth
  - 1.7 in Fenland
  - 1.7 in Kingston upon Hull, City of
  - 1.7 in Boston
  - 1.7 in Stoke-on-Trent
- **Employment**
  - 1.2 in Middlesbrough
  - 1.1 in Kingston upon Hull, City of
  - 1.1 in Birmingham
  - 1.0 in Nottingham
  - 1.0 in Barking and Dagenham
- **Income**
  - 0.7 in Nottingham
  - 0.7 in Blackburn with Darwen
  - 0.7 in Leicester
  - 0.6 in Sandwell
  - 0.6 in Manchester
- **Crime**
  - 0.5 in Lambeth
  - 0.5 in Newham
  - 0.5 in Barking and Dagenham
  - 0.5 in Islington
  - 0.5 in Waltham Forest
- **Housing**
  - 0.5 in Cornwall
  - 0.5 in West Devon
  - 0.5 in Eden
  - 0.5 in West Somerset
  - 0.5 in Pendle

16 These five social factors explain 61% of the difference of male life expectancy across local authorities, whilst an additional 23% is explained by the place-based factors of region and proportion of rural population. For female life expectancy the respective figures were 55%, 25%. See Appendix A for further details.
17 The full list can be seen using the interactive tool on CPP’s website – https://www.progressive-policy.net/publications/beyond-the-nhs-addressing-the-root-causes-of-poor-health
Beyond the NHS: Addressing the root causes of poor health
The importance of non-health spending for population health

The evidence not only points to the fact that poor health outcomes are associated with social determinants, but that spending money on these social determinants is associated with better health outcomes. New CPP analysis shows that countries which increase their spending on social protection also experience improvements in life expectancy and reductions in infant mortality. Increased education spending was also strongly related to reduced infant deaths. (See Appendix B for further details on results and methodology).

The importance of social spending to health outcomes has been confirmed in several studies which have shown using a range of tests that countries with greater social expenditure have better health outcomes. However, the effect of social spending can take time to filter down to measured health outcomes. For instance, within our analysis, it takes five years for family-related social spending to positively impact on health, whereas for incapacity spending it is immediate. This complex time dimension makes it easier for government and policymakers to disregard the importance of non-health spending to health.

Public spending on healthcare is increasing whilst spending on the social causes of health are falling

The recent history of health and social spending suggests that the importance of social determinants to good health has been ignored. Whilst most areas of government spending have fallen in real terms since the peak of 2009/10, health spending has continued to rise (see Fig. 4), meaning health is accounting for an ever-increasing share of overall government spending. With last year’s announcement of an additional £20bn, health spending will continue to rise.

Social deprivation not only affects how long you live but also how healthy that life is. Equivalent analysis of healthy life expectancy estimates 170 million years of healthy life are being lost.

Fig. 4: Cumulative change in public spending by function (1998–2018)

Source data: Author’s analysis of HMT Public Expenditure Statistical Analyses (PESA) 2018, Table 4.3 Public sector expenditure on services by function in real terms, 1994–95 to 2017–18
Fig. 5: Life years lost due to social deprivation by local authority
This continued rise in health spending is arguably not fiscally sustainable. The OBR has modelled that cost pressures on the health service could raise our debt-to-GDP ratio to 283% by 2038. If current trends continue, the result will be a further squeezing of working age social protection, education, and housing.

“We need to engage at local and community level. To quote Benjamin Disraeli, ‘the health of the people is really the foundation upon which all their happiness and all their powers as a state depend.’ We need to engage at a local level both as citizens, local organisations and local government, and we need to include mental health as well as physical health.”

Sir Cyril Chantler, Honourable Fellow and Emeritus Chairman at University College London Partners Academic Health Science Partnership

So far, the squeeze has particularly hit local authorities. Local authorities are well placed to address many of the social causes of poor health. With the greatest knowledge about the particular problems facing their areas, local authorities can identify and prioritise interventions. Yet since 2010/11, local authorities have faced real terms cuts of nearly 50%.

So, while health spending is being prioritised, spending on social determinants is being ignored. Furthermore, the majority of government health spending is on curative and rehabilitative care (63.9%) while just 5.1% is spent on prevention, and even this form of prevention spending does not typically target the social causes of poor health. Meanwhile, the public health budget has also been cut. The Health Foundation have identified a £900m real-terms reduction in funding between 2014/15 and 2019/20, a reduction in spending per person of 25%.

5.1%
The majority of government health spending is on curative and rehabilitative care, while just 5.1% is spent on prevention.

-£900m
The Health Foundation has identified a £900m real terms reduction in funding of public health between 2014/15 and 2019/20, a reduction in spending per person of 25%.

The Marmot Review 10 years on – progress or procrastination?

It is now 10 years on from Marmot first bringing the inequalities of health and its social determinants into the public consciousness, and the picture has not improved. Health improvements have stalled, ending a decades old trend, because of widening inequalities between the least and most socially deprived. This social inequality will lose almost 80m years of life for the current population of England.

Despite this, and the well-established link between inequalities in health and inequalities in deprivation, health policy has continued to focus on increasing the budget for treatment in the NHS. This failure to address the causes of poor health, coupled with a willingness to fund the effects of poor health, is pushing us further towards a fiscally unsustainable situation. If we are to break from this cycle, we need to reset policy.

21 OBR (2018) Fiscal Sustainability Report. This figure is based on the OBR’s baseline scenario. In the “higher other cost pressures” scenario it rises to 326% while in a scenario of “no other cost pressures”, debt to GDP rises to 172%


Summary

- The social determinants of health – such as income, employment, education, housing and crime – account for the clear majority of health outcomes and exhibit significant variation both between and within local areas.

- Lives are being significantly shortened by socioeconomic inequality. Based on the assumption that everyone could live as long as those in the least economically deprived areas, CPP estimates that for England’s population today, almost 80m life years will be lost, 1.5 years per person.

- CPP analysis of 35 OECD countries since 1980 shows that those countries which increased their spending on social protection and education as a proportion of GDP also experienced improvements in health (measured in terms of life expectancy and infant mortality). Yet in England, social protection and education funding has been cut relative to health spending.

- Health spending has continued to rise in real terms, yet little of the overall health budget is dedicated to prevention (circa 5%) and even less to addressing the social determinants of poor health.
The current agenda on social determinants
The neglected driver of the nation’s health

Barriers to action

Despite the growing rhetoric of a more empowered and informed health consumer, research indicates that the general populace has little awareness of the importance of the social determinants of health.\(^{24}\) Prevailing health narratives have pushed the notion of lifestyle issues as a leading cause of chronic disease while ignoring the effects of, for instance, income and education. This approach promotes the concept of individual responsibility over collective responsibility for health\(^{25}\) and with low levels of public pressure, there has been no ‘bottom-up’ push for government action on the social determinants agenda.

Many an NHS leader has been called to account for their failure to meet A&E targets, whilst we can find no evidence that anyone has ever been questioned for failing to tackle the social determinants of health. This is because there is no clear ownership of the agenda or consensus on where it should lie. One of the inherent difficulties of building and implementing policies is the need for cross ministerial and departmental action, which can be exacerbated by resource protectionism.

It is also unlikely that a policy will produce immediate effects that are both measurable and attributable, meaning any efforts will not necessarily be rewarded within a desired political time frame. Given the inherent complexities of tackling systems of inequity, be it in housing, education, income or beyond, it is a challenge to realign the division of accountability, leadership and responsibility at the local, regional and national level to drive change. However, as we will set out in Chapter 3, fostering and strengthening integrated place-based policy and creating structures that allow for appropriate accountability and effective leadership is essential to create step change.

The national context

Within the academic literature on interventions to address social determinants, government and policy are viewed as particularly powerful and effective intervention points when compared to more ‘downstream’ measures.\(^{26}\) In a rigorous analysis of recommendations from major reports on social determinants within the UK and WHO, those recommendations that called for joined-up action between different parts of government and other sectors – commonly referred to as ‘whole-of-government approaches’ – were among the most commonly featured.\(^{27}\)

Without addressing a broad sweep of policy areas including, for example, poverty, income, tax and benefits, progress on the social determinants will be thwarted. While a detailed examination of the solutions across these policy areas is beyond the scope of this report, below we examine whether current national plans and implementation mechanisms are making progress on the broad agenda of social determinants.

Prevailing health narratives have pushed the notion of lifestyle issues as a leading cause of chronic disease, while ignoring the effects of income and education

New health legislation emphasises equality of access and social value in procurement, but fails to stimulate action

Seven years ago, the government introduced the Health and Social Care Act 2012. The Act introduced the first legal duties regarding health inequalities. It contained specific duties for all major health bodies, requiring them to be mindful of the need to reduce inequalities in the benefits obtainable from health services. The Act also brought in changes to public health which subsequently moved from being a function of the NHS to being under the control of local government. Finally, the Act established the body PHE, which was to have an explicit focus on public health, in particular the social determinants of health.

The Public Services (Social Value) Act 2012 required public sector commissioners – including local authorities and health sector bodies – to consider economic, social and environmental wellbeing in procurement of services or contracts. The intention was that by defining value with reference to the social determinants of health, this could help reduce local inequalities, improve the health and wellbeing of local people and, in the longer term, reduce the demand on health and other services.


\(^{25}\) It is worth noting that while promoting the concept of individual responsibility for health may not always be a problem, our health system is not necessarily designed to enable people to (easily) take individual responsibility where this applies.


Taken together, the Health and Social Care Act and the Public Services (Social Value) Act offered an opportunity to do health differently, putting greater emphasis on using the health service to address inequalities and consider the wider economic and societal impact of health procurement. But while the Health and Social Care Act gave explicit mention to inequality, this has largely been interpreted as being more about equality of access rather than addressing the root causes of health inequality. The Public Services (Social Value) Act was widely welcomed and has since been expanded to other areas of government procurement, but there remains uncertainty about how the wider social and economic impact of proposed projects are applied in a broader health context.

While the Health and Social Care Act 2012 gives explicit mention to inequality, this has largely been interpreted as being more about equality of access rather than addressing the root causes of health inequality

Moreover, just as these legislative changes were being brought in, government was also abolishing most NHS targets, including those related to health inequalities. As mentioned in Buck and Jabbal (2014):

“The existence of these targets – at least in the areas of the country where they were applied – provided a focus for action among population groups that were at greatest risk of poverty, and for whom proactive healthcare could help them escape it. This included focused activity locally and central government funding for health inequality reductions in spearhead areas and local authorities. Importantly, this also included narrowing gaps in overall health inequalities in outcomes – life expectancy and infant mortality – rather than simply in access to services”.

The NHS Long Term Plan lacks a radical social agenda

The eagerly awaited Long Term Plan, published in early 2019, set out the NHS’s vision for the next 10 years. The document stresses the importance of prevention and health inequalities while acknowledging that the NHS is just one factor in reducing the latter. The plan implies therefore that individuals, companies, communities and governments are ultimately responsible for addressing the wider social determinants of poor health.

In terms of specific action to reduce inequalities, the plan notes that NHS England will continue to target a higher share of funding towards geographies with high health inequalities and that this funding will be worth over £1bn by 2023/24. The plan outlines a new requirement for all local health systems to set out during 2019 how they will specifically reduce health inequalities by 2023/24 and 2028/29. These plans must show how those Clinical Commissioning Groups (CCGs) benefiting from the health inequalities adjustment money are targeting that funding to improve the equity of access and outcomes. NHS England, working with PHE and partners in the voluntary, community sector and local government will be developing a ‘menu’ of evidence-based interventions that, if adopted locally, would contribute to this goal.

On the prevention front, the proposed activities focus on delivering funds for new NHS prevention programmes including cutting smoking, reducing obesity (partly by doubling enrolment in the successful Type 2 NHS Diabetes Prevention Programme), limiting alcohol-related A&E admissions, and lowering air pollution. With the exception of the latter, these activities are very much targeting the proximal causes of ill health (i.e., smoking) rather than the underlying background social causes.

The plan does include an appendix on how the NHS supports wider social goals including employment, the justice system and the environment (amongst others). And it concludes with a short note on the NHS’s role as an anchor institution both in terms of being a significant employer (of over 1.4m people) and procurer of services. But there are no specific recommendations as to how the NHS can expand and leverage its role in these domains.

In focus – the missing potential of the NHS as an anchor institution and the wider health and social care sector

The Long Term Plan stops short of quantifying the potential of the NHS as an anchor institution. However, new CPP analysis reveals the untapped potential within the health and social care sector. Health and social care is a sizeable sector of the economy accounting for 7% of total output in England or £108bn.29 In some places, health and social care accounts for a particularly large share of economic output. In Blackpool, for instance, it accounts for 18.2% of output and in Stoke-on-Trent, 15.2%. Contrast this with the London boroughs of Westminster and Camden where less than 3% of output is derived from health and social care. CPP analysis finds that, on average, the health and care sector accounts for a larger share of output in more deprived places.30 The choices made by health and care related organisations in terms of recruitment, training and procurement will therefore have a particularly profound effect on the lives of people in these deprived areas.31

Finally, the Long Term Plan makes commitments regarding social prescribing – which is a way of linking patients in primary care with sources of support in the community. Social prescribing brings in a wide range of local agencies, including general practice, local authorities, pharmacies, multi-disciplinary teams, hospital discharge teams, allied health professionals, fire service, police, job centres, social care services, housing associations and voluntary, community and social enterprise (VCSE) organisations. The plan proposes that link workers within primary care networks will work with people to develop tailored plans and connect them to local groups and support services. There is a specific commitment for over 1000 trained social prescribing link workers to be in place by the end of 2020/21, rising further by 2023/24, with the aim that over 900,000 people will be referred to social prescribing schemes by then.

Regional and local level – blurred lines of accountability?

The Health and Social Care Act heralded significant change in the structures and geographies of local and regional health institutions. Since 2013, CCGs have become the statutory NHS bodies responsible for the planning and commissioning of healthcare services for their local area. They are responsible for 60% of the NHS budget. At the same time, Health and Wellbeing Boards (HWBs) were established by local authorities to act as a forum for local commissioners across the NHS, social care, public health and other services. Meanwhile local authorities took on the responsibility for public health.

There has also been the establishment of combined authorities, of which Greater Manchester has devolved powers and budget around health and social care (see Case Study in Chapter 3). In addition, in 2016, NHS organisations and local councils came together to form 44 Sustainability and Transformation Partnerships (STPs) covering the whole of England to set out specific proposals to improve health and care in their area. The ultimate intention is for all STPs to evolve into ICSs which will then lead on planning and optimising the health of their populations. Finally, there are the new emerging regional teams and regional geographies covering both NHS England and NHS Improvement functions.

This highly complex web of structures and institutions means that there are multiple definitions of place and accountability for health, both in terms of clinical health (i.e., that provided by the NHS) as well as population health more broadly. This is not helped by the fact that there are often large geographical disparities between the areas covered by local authorities (or Combined Authorities) and the areas covered by CCGs, health and wellbeing boards, NHS Regions and STPs. As we elaborated on in our interim report Beyond sticking plasters, this fragmented system makes coordination and leadership of health and care difficult and can have adverse impacts on health outcomes in terms of increased unplanned hospitalisations and delayed transfers of care. Ultimately it makes it even less clear who has responsibility for addressing the root causes of poor health in an area.

29 CPP analysis of ONS (2018) Nominal regional gross value added (balanced) per head and income components
31 It is also worth noting the correlation between deprivation and human health and social work is even stronger if we exclude the London outliers of Westminster and Tower Hamlets (R2=0.4191)

£108bn

Health and social care is a sizeable sector of the economy accounting for 7% of total output in England or £108bn.

Beyond the NHS: Addressing the root causes of poor health
The diminishing resources of local authorities

Local authorities are well placed to address the social causes of poor health. With the greatest knowledge about the problems facing their areas, local authorities can identify and coordinate the types of multi-faceted activities necessary to tackle localised social problems like knife crime and homelessness, though may not have the necessary resources to do so effectively. Local authorities have also been given responsibility for public health, so they have more power over resources deployed locally. But, critically, local authorities have been significantly hampered by large cuts to both overall funding and the public health budget. Since 2010/11, local authorities have faced real terms cuts of nearly 50%. Given rising demand for adult social care, which is predominantly paid for through local authority funds, an increasing amount of overall local authority funding is therefore directed to meeting this need (up from 45% in 2010/11 to 54% in 2016/17). This in turn has reduced the amount that can be spent on anything else (see Fig. 6).\(^\text{32}\) At the same time, as highlighted earlier, the core public health grant has fallen by a quarter (25%) per person during this time.\(^\text{33}\)

Allocation of funding

There is also an emerging issue of the allocation of funding itself, which could exacerbate the challenges facing deprived communities. The government is currently contemplating revisions to the methodology for allocating local authority funds which would disperse resources purely based on population and exclude deprivation. As the Institute of Fiscal Studies (IFS) recently noted, a population-only formula would lead to lower assessments of needs – and hence lower funding – for deprived (often inner city) councils than both the current formula and an updated formula that included deprivation.\(^\text{34}\) The formula for allocating the public health grant is also under review. Currently the primary indicator of need is the standardised mortality ratio for those under 75 – with a weighted ratio of 5:1 to target funding towards areas with the poorest health outcomes. The review is contemplating raising the ratio to 10:1 to increase the distribution of resources to the most deprived areas.\(^\text{35}\)

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33 The Health Foundation (2018) op cit.
34 Institute of Fiscal Studies (2019) Response to the Ministry of Housing, Communities and Local Government’s Consultation. Available at: https://www.ifs.org.uk/publications/13922
Summary

The current public policy landscape is failing to address the social causes of health inequality for the following reasons:

• Health increasingly dominates public spending at the expense of all else, but health spending is not directed at the social causes of poor health, which collectively are the primary drivers of health outcomes.

• The Health and Social Care Act and the Public Services (Social Value) Act emphasis health inequalities and the wider social impacts of health procurement, but there remains confusion over interpretation and implementation. Moreover, the legislation came shortly after the government abolished localised health inequality targeting which arguably has resulted in less emphasis on reducing health inequalities and their social determinants.

• The complex web of health institutions and structures at local and regional level make it difficult to determine who is responsible for the health of populations and it is even less clear who is responsible for the root causes of poor health.

• Local authorities, who in many ways are the natural agent to tackle social determinants, have seen their overall budgets cut substantially. And despite taking on responsibility for public health, this too has experienced significant funding cuts.

• The NHS Long Term Plan places strong emphasis on health inequalities in terms of access and outcomes, but there is only limited discussion about prevention with regards to deprived communities and notably no reference to social determinants.
Priorities for action

While successive governments have agreed to reduce health inequalities, stagnating life expectancy and rising health inequalities show that faster and further action is required. We need a significant shift in the approach and focus of public policy if we are to address the deep-rooted health problems that persist within communities.

In response to the challenge, CPP argues for an approach to health that activates assets and resources at the national, regional, local, and community level. Specifically:

- **Central government** must provide direction and leadership to coordinate and allocate resources effectively to areas left behind (p.25-26).
- **NHS England** must ensure social determinants are mainstreamed into existing and emerging NHS frameworks and structures (p.27-28).
- **Regional and local systems** are best placed to understand how to target and distribute resources at a community, place-based level (p.29-33).
- **Community and voluntary sector** have a vital role in shaping the health agenda (p.34-36).

**Future opportunities – central government**

**Strengthening the role and reporting mechanisms of the Chief Medical Officer**

Technically, the CMO in England is the most senior advisor on health matters in government, with responsibilities for public health. However, as is invariably the case with positions of this nature, the direction of policy travel and priority can differ greatly between respective incumbents, depending to an extent on an individual’s attachments, affiliations and expertise. Given the need to promote and strengthen the agenda for tackling social determinants, a more prescriptive remit via statute should be considered for embedding social determinants and health inequalities. Furthermore, reporting mechanisms should be strengthened, with the CMO working with other government departments. The role should also be accountable to the Cabinet Office. This would enable the CMO to become the champion of social determinants of health at the highest level in government.

**Joined-up action – stronger central leadership and priority attached to tackling social determinants**

In order to stimulate cross-departmental action, the Cabinet Office should initiate a review of the roles of all departments in tackling social determinants. From this, central government should produce a set of cross-departmental commitments, from education to criminal justice, to improving population health. Government should also develop stronger mechanisms for assessing the impact on health across all policy areas. This could be facilitated by an information-sharing strategy across government. Ministers should be accountable to the Health and Social Care Select Committee. All of these initiatives and interventions must support regional and local endeavours rather than undermining efforts to address profoundly place-based health inequalities. The former government Health Inequalities Strategy (1997-2010) (see Intervention Case Study 1) for example aimed to cut health inequalities by setting specific targets to decrease inequalities in infant mortality and life expectancy by 10%. By its scale and ambition, the above strategy was a successful intervention which could be replicated.

**More social spending is required relative to health spending**

While a large body of evidence demonstrates how improving social determinants results in better long-term health, redirecting resources to do so can be both politically and practically challenging, despite the potential long-term rewards. Calculating the costs/benefits of investing in the root causes of poor health over the long term would help to provide the business case to government and ultimately the wider public. Such an exercise could sit alongside a broader review of the sustainability of health and social care funding. The ultimate goal would be to inform our understanding of what allocation of overall government resources is most efficient for delivering better health outcomes to help secure long-run fiscal sustainability. Such an assessment could be conducted by the OBR.

In the short term, the government’s spending review, to be published later this year, provides an opportunity to bolster the commitments towards prevention, backed up by adequate resources. Any improvements in public health and prevention will need to be delivered beyond the NHS and include improved funding settlements for local government including public health and social care. In this context, the Green Papers on social care and prevention also represent opportunities for the government to place a greater emphasis on and investment in the social determinants of health.
Intervention Case Study 1

English Health Inequalities Strategy (1997-2010)

Location
Part of the policy was organised around 70 ‘spearhead’ local authorities. These authorities and the 62 Primary Care Trusts (PCTs) that could be mapped onto their boundaries were accountable for implementing the Strategy.

However, the broader actions in the Strategy were targeted at socioeconomically disadvantaged areas and groups rather than specifically at the spearhead group.

The challenge
To reduce geographical inequalities in life expectancy, with a target set to reduce by at least 10% the gap in life expectancy between the fifth of local authorities with the worst health and deprivation indicators (the spearhead areas) and the wider population.

Evidence of success
Establishing causality between health and socio-determinants is complex, nevertheless there is now some degree of consensus that the English Health Inequalities Strategy was effective in its ambitions.

A British Medical Journal (BMJ) study analysing the impact of the policy by looking at its data on impact on life expectancy, concludes: “We found that absolute and relative inequalities in life expectancy between the most deprived English local authorities and the rest of the country increased before the English Health Inequalities Strategy, declined during the Strategy period, and increased again since the Strategy came to an end.”

However, it is worth noting that earlier studies from the Department of Health estimated that the gap in life expectancy between spearhead areas and the rest of the country had not narrowed.

Brief description
The English Health Inequalities Strategy was a cross-government strategy implemented between 1997 and 2010 to reduce health inequalities in England.

Focused on four themes: supporting families; engaging communities in tackling deprivation; improving prevention, treatment and care; tackling the underlying social determinants of health. Eighty-two commitments were made across different government departments.

Instigator/catalyst and implementation journey
Strong leadership from within government and the establishment of a cross-departmental Cabinet committee.

With regards to implementation alongside local accountability, there were clear targets and performance monitoring. Furthermore, a new policy was introduced to allocate an increasing proportion of UK National Health Service resources to more deprived areas.

Potential cost savings
Unknown.

Applicability potential for diffusion
High – but needs strong central leadership and local accountability.

Limitations
While the BMJ and other recent studies suggest that inequalities in life expectancy decreased during the period of the Strategy, it has been claimed that action on improving psychosocial factors such as smoking and diet were less successful. Also, that inequalities in smoking remained relatively stable during the Strategy period, while inequalities in obesity increased.

Current status/future
The Strategy came to an end with the change of government in 2010.

Sources

Available at: https://www.bmj.com/content/358/bmj.j3310
Future opportunities – NHS England

The NHS has minimal control over the drivers of demand for its services. However, given the importance the Long Term Plan places on tackling health inequalities and the resources and assets at its disposal, there are still opportunities to realign priorities to bolster the social determinants of health agenda.

Embedding a broader approach to prevention

There is an inevitable logic to the specificity of the NHS prevention programme by focusing on certain risk factors and particular groups. However, such a narrow focus and prioritisation may prevent ‘buy in’ from decision-makers to a broader prevention agenda which can drive change across the entire population in specific hard-to-reach and deprived places. While the commitment to set specific measurable goals on tackling inequalities at the national and local level is welcome, how these goals are developed and then interpreted within local areas is unclear.

In the short-to-medium term, there is however, an opportunity to consider how and whether interventions that seek to address social determinants could be included in the menu of options currently being drawn up by NHS England, PHE and others, that if adopted locally would contribute to the goal of reducing health inequalities. In this context the NHS needs to take on greater responsibility for working with actors and organisations beyond the formal health sector.

Currently just 5% of the NHS budget is spent on prevention, and very little of this is spent on long-term prevention.

Currently just 5% of the NHS budget is spent on prevention, and very little of this is spent on long-term prevention (i.e., the social determinants of health). Alongside raising the proportion of total NHS spend on prevention there is a case to ring-fence some of the prevention money for addressing the social determinants of health. Critically, given the time it can take to move the dial on these determinants, success should be measured over a longer time period (i.e., five plus years).

The success of the Plan in terms of reducing health inequalities will depend on the details of the National Implementation Framework, proposed changes to commissioning allocations for CCGs (with a higher share of funding targeted at areas in poor health) and the new performance and accountability framework of new ICSs. Alongside this, how localities will develop and interpret their own versions of the Plan remains to be seen.

Furthermore, the broader environment of the spending review and the complementarity between the Plan and the forthcoming prevention and social care Green Papers creates an uncertain climate to recommend concrete future action or predict the Plan’s likely success in reducing health inequalities. It will be essential for long-term success to embed social determinants within the set up and roll out of these proposed changes.

Leveraging the NHS as an anchor institution

The Plan also encourages the NHS to see itself as an anchor institution and set out a commitment to work with The Health Foundation to explore the potential in developing the role of local NHS organisations in this regard. This acknowledges the role of the NHS in terms of changing and shaping social, economic and environmental factors within localities, thereby directly or indirectly improving population health within communities. The NHS has huge potential in terms of commissioning, procurement, employment and volunteering and the redirection and use of community and land assets to make an impact on the social determinants of health. For instance, six anchor institutions in Preston spearheaded work on reorganising their local economy to deliver local wealth. In 2012, only £37.5m of £150m was spent locally, but by 2017, £135m was spent locally creating 1700 jobs. This should serve to prompt other NHS organisations in deprived places to set similar targets with regards to a baseline of spend locally.

“CPP’s analysis shows that, on average, the health and care sector accounts for a larger share of local area output in deprived places. It is imperative therefore that the role of the NHS as an anchor institution is leveraged so that it plays a positive role in shaping social, economic and environmental factors within localities.”

Jo Bibby, Director of Health, The Health Foundation

As our research in Chapter 2 highlights, given the potential to make transformative changes within deprived areas, NHS England should go beyond their review of the NHS as an anchor institution and promoting good practice, to providing incentives and stimulus to create pilots across selected sites and evaluate the impact within the next five years. Critically within the current devolution context, greater attention will need to be directed at how the co-production of the design, development and delivery of interventions are fostered, be it at the city, region or neighbourhood level.
The workforce

A critical yet often overlooked aspect of promoting the role of social determinants across the NHS is workforce training and education. Michael Marmot has strongly argued for workforce training and education, strengthening and mandating the role of the social determinants of health in clinical education and training. And yet progress has been limited and its effectiveness has been questioned. However, as The King’s Fund notes, there are examples of good practice including ‘General Practitioners at the Deep End’ who work in 100 general practices serving the most socio-economically deprived populations in Scotland. The project acknowledges that while the ability of healthcare to change the social determinants that lead to poor health is limited, healthcare is nonetheless a social determinant and doctors are part of the social capital of communities. Clearly clinicians have many pressures on their time and resources, but where there is proven benefit to referring individuals to support and services outside of the NHS (see below on social prescribing), clinicians should be aware and prepared to act.

The funding available for additional investment in the workforce, in the form of training, education and Continuing Professional Development (CPD) has yet to be set by government. And while there is no reference to workforce education and training and social determinants of health within the NHS Long Term Plan, there is still an opportunity for NHS England and Health Education England (HEE) to build a population health approach within the Implementation Plan. In the US, in response to national services and welfare cuts, Wellcare (providers primarily of government-sponsored managed healthcare services to individuals with complex medical needs) developed improved signposting and a dedicated call centre to direct individuals requesting food, medication and utilities assistance. In 2016 an evaluation study showed their model led to a 26% reduction in emergency spending, a 53% decrease in inpatient spending and a 23% decrease in outpatient spending.36

Evaluation of the impacts of social prescribing

The NHS and the Secretary of State for Health and Social Care, Matt Hancock MP, has backed an expansion of social prescribing as a way of relieving pressure on the NHS as well as improving patients’ care, lifestyle and recovery. Social prescribing can contribute to a broader focus on tackling social determinants in relation to employment, housing, education and volunteering. Through signposting and supporting individuals to make use of existing and newly-created community assets, it has the potential to improve the social capital and consequently the health outcomes of some of the most vulnerable and disadvantaged within society. However, while there is an increasing amount of guidance on social prescribing for commissioners and others in the NHS and local government, as well as a new Social Prescribing Network and a national clinical champion, the evidence base is limited in terms of understanding eligibility, take-up and effectiveness in delivering social value. More robust analysis of the impact of social prescribing would be beneficial in order to understand if those most in need are being reached, with a view to a more targeted approach going forward. If evaluations are favourable, successful interventions of social prescribing should be included in the menu of options being developed by NHS England and PHE to reduce health inequalities.

“As we recognise the importance of therapies beyond traditional pharmacological and psychological ones, and as patients increasingly adopt more roles in their care, the importance of new interventions such as ‘social prescribing’ will be seen as important additions to improved health and wellbeing.”

Professor Mike Bewick, former Deputy Medical Director, NHS England

Regional and local level

In this section we will focus on the potential of activating assets and resources at the regional and local level to address social determinants. Given the legislative changes highlighted in the previous chapter, there is huge potential to improve population health and tackle social determinants, as we set out on the following pages.

Social prescribing can contribute to a broader focus on tackling social determinants in relation to employment, housing, education and volunteering

Future opportunities - regional and local

Improved resources for deprived places

The movement of public health functions into local authorities presents an increased opportunity for public health to influence other local government functions such as economic development and transport and vice-versa. Across the key policy areas influencing social determinants where action is most likely to be effective in reducing health inequalities (as identified by Marmot); local government acting in collaboration with the NHS, public health and other partners has a critical role to play. And yet, local authorities have faced massive real terms cuts over the last decade.

Alongside seeing an improved overall settlement for local authority and public health budgets, more resources must be directed towards the most deprived areas. The funding formulas for both budgets are currently under review and it is critical that deprivation is included within them in order to help address inequalities. This is the case with regards to the proposed settlement for public health which will account for different local area mortality rates, but it is not the case to overall local authority funding which will only take population sizes into account. In this context, government should revise their proposed allocations for overall local government and include deprivation (based on the Index of Multiple Deprivation) within the allocation formula while also agreeing with the Advisory Committee on Resource Allocation (ACRA)’s recommendation for enhanced deprivation targeting (based on local area mortality rates) through the public health budget. Local authorities are best placed to determine where the additional funds are spent.

In addition to the local government and public health settlements, there is an opportunity to ensure that the UK Shared Prosperity Fund is carefully targeted to tackle deep-rooted socioeconomic deprivation in hard-to-reach places.

The funding formulas for both local authority and public health budgets are currently under review and it is critical that deprivation is included within them in order to help address inequalities.

Embedding whole systems approaches through new models of leadership and coordination

In order to deliver an effective place-based approach, there needs to be improved partnership working across departments and services. Many of the determinants of crime, for example, are the same as the determinants of health. Improved joined-up working therefore presents an opportunity to tackle inequalities across more than one domain, although it should be acknowledged that joined-up working can also make programme and investment evaluation more complex. While there is no single blueprint for a population health approach to tackling social determinants, all providers, commissioners and service planners should be tasked with working to create a whole place systems approach in collaboration with other agencies, including the third sector, schools, the police and criminal justice system.

Efforts on the part of the NHS to adopt a place-based approach by breaking up into different levels (neighbourhood, locality, region) are creating a more complicated institutional geography. There is a danger that local health systems become increasingly complicated and fragmented, with confusion about responsibility and accountability for population health and inequality reduction. This highly complex web of structures and institutions means there are multiple definitions of place and accountability for health – both in terms of clinical health (i.e., that provided by the NHS) as well as in population health more broadly. This is not helped by the fact that there are often large geographical disparities between the areas covered by local authorities (or Combined Authorities) and the areas covered by CCGs, health and wellbeing boards, NHS Regions and STPs. We have elaborated on this in our interim report Beyond sticking plasters.

By exploring what has worked previously we can develop and adopt coherent placed-based models of health that view health in the widest sense and have strong mechanisms for leadership, accountability and collaboration. In England, devolution of responsibility for health has provided variation in the system and this presents a significant opportunity to share lessons from their different approaches as highlighted below:

**Manchester:** In February 2015, NHS organisations and local authorities in Greater Manchester signed a landmark devolution agreement with the government to take charge of health and social care spending and decisions in the city region. The Manchester Model is predicated on a life-course approach with a focus on key moments of transition including school-readiness, life-readiness, ending homelessness and active ageing (see Intervention Case Study 2 for further details). And it is facilitated by:

- Integration of commissioning (i.e., local authority CEOs are also COs of local CCGs)
- Shift to a single budget and place-based commissioning
- Co-located professionals in each neighbourhood.

**Coventry:** Alongside a network of local authorities in England (Stoke, Newcastle, Gateshead, Bristol, Somerset), Coventry is working in-depth to develop a ‘Marmot approach’ to tackling health inequalities, based on the Marmot Review of 2010. This approach to population health builds on creating partnerships between city planners and development, public health, the local NHS, the police and others. See Intervention Case Study 3 for further details.

**Newham:** Led by the then Mayor, Sir Robin Wales, Newham pioneered a place-based approach to tackling social determinants, leading an ambitious programme of regeneration and growth. In 2008-9 they had the lowest employment rate of any other borough at 56.2%, while in 2017 employment figures were around 75%. They also introduced free school meals – the first local authority in the country to do so. As a result, a report by the Education Policy Institute found that there was no attainment gap between Newham’s disadvantaged and the national average for non-disadvantaged five-year-olds.  

**Devon:** Devon’s STP has been a positive catalyst for improving population health, building a collaborative system approach to the NHS and local government. For example, NHS commissioners and local authorities have jointly established wellbeing hubs and in 2018, as part of their two-year report, they will be part of one in 10 new housing developments set up with NHS support across England to shape the health of communities, leading to a rethink in how health and care services are delivered locally. The framework of the STP helped the NHS in Devon to move away from being one of the three most challenged health systems in England to one of 14 systems making progress.

**Bicester Healthy New Towns Initiative:** Led by Cherwell District Council, this is a place-based population-wide prevention programme testing innovations in the built environment, new models of care and community activation to identify the impacts they have on public health. It includes a development of 13,000 homes within the Bicester area, adopting a systems-based approach to delivering change, working closely with a wide range of partners including schools, businesses, health and care providers, the voluntary sector, housing developers and academic partners.

While we have stopped short of recommending one model, what is clear from the above examples is the need for a functioning economic area for health aligning social and economic policy systems and institutions for the whole place. This need not necessarily amount to structural reform to the scale of Greater Manchester, but we must hold NHS leaders accountable to be whole place leaders, building productive links with local government, public, private and other third sector agencies and individuals. It is also evident that strong leadership as a catalyst for change is a common thread across all of the above examples, as is a clear line of accountability in terms of reporting mechanisms and progress. Furthermore, the formation of effective alliances and partnerships marrying up competing policy demands into a coherent social determinants agenda and the removal of professional and financial governance barriers is key.

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Highly localised and targeted prevention

Many of the key health behaviours and risk factors significant to the development of chronic disease follow the social gradient: smoking, obesity, lack of physical activity, unhealthy nutrition. However, in the context of limited resources, we need to foster a clearer understanding of the optimal moments for prevention and the most appropriate interventions for different population groups. In some instances, we need more targeted interventions. For example, those living in the 10% most deprived places are almost twice as likely to die from Cardiovascular Disease (CVD) compared to those among the 10% most affluent. Similarly, while the number of smokers has fallen to 7.4m people – down 0.7% in a year – smoking cessation is less prevalent amongst deprived groups (26% of those working in manual occupations smoke in comparison to 10% of those working in managerial or professional occupations). These trends imply that adopting a universal approach to smoking cessation or CVD is less effective in deprived places.

In response, we need to adopt more tailored targeting for specific groups and consider the most effective time for intervention both in terms of implications for resource management and maximising the chances of a successful intervention. In Canada for example, several regions have introduced hospital-initiated tobacco cessation programmes. This is a relatively low-cost intervention and hospital provides an unique opportunity as an intervention point as they are no-smoking zones. Such initiatives have been shown to improve patient outcomes and thereby decrease subsequent healthcare usage. PHE and relevant organisations should provide further guidance on the efficacy of behavioural change interventions over a set time period, in terms of likelihood of success and cost effectiveness.

To help support local behavioural change in deprived areas, we need professionals embedded in communities focused on the drivers and barriers for action. This might include the local GP, the local advisor in the children and family centre or the teacher at the local school or nursery. It might include local support groups of individuals who have experienced similar health, social or economic challenges and come out the other side. Fostering and nurturing such community hubs and the people who work for them to unlock the specific motivators for change in hard to reach places should be an important part of any population health strategy.

Strengthen the role and support for Public Health Directors

Directors of Public Health are responsible for determining the overall vision and objectives for public health in a local area. They are accountable for delivering public health objectives and reporting annually on the outcomes and future work. They should therefore be ideally placed to drive the agenda for greater investment and focus on social determinants within the local area. However, their degree of leverage and leadership can vary greatly depending on where they sit within the reporting structures and the degree of flexibility of spend within their public health budgets. This once again can create widespread variability in terms of their impact, role and performance to shape this agenda.

Those living in the 10% most deprived places are almost twice as likely to die from Cardiovascular Disease (CVD) compared to those among the 10% most affluent.

To strengthen their role, Directors of Public Health must be afforded a greater and central role in the development and delivery of the ICSs, and their legitimacy could be bolstered by increased budgets. In certain areas, they should also be afforded the flexibility and discretion to reduce the amount of funding on mandated services through the local health budget to enable local areas to direct public health money towards social determinants where necessary. Public Health Directors would therefore have more resource as well as discretion as to how they target their resources locally.

Intervention Case Study 2

Greater Manchester

Location
Greater Manchester

The challenge
Manchester is the third most deprived Local Enterprise Partnership in the country according to the 2015 Indices of Multiple Deprivation (using IMD 2015 rank of average rank - local authority district summaries). Over a quarter of all children living in Manchester (dependents under the age of 20) are living in poverty.

Brief description
The Greater Manchester model was predicated on improving population health, creating a sustainable health and care system, and contribute to achieving the region’s economic potential.

Progress was to be focused on the following areas (not exclusively):
- Closing the gap to the rest of England on school readiness
- Increasing the access rate for children and young people for mental health care
- Helping over 3,200 long-term unemployed people find work through the local commissioning of Working Well
- Making sure that 100% of Greater Manchester’s residents can get routine or pre-booked appointments with their general practice seven days a week (up from 47% in 2016)
- Improving the proportion of care home beds and domiciliary care agencies rated good or outstanding by Care Quality Commission (CQC): this rose from 47% and 63% in 2016 to 66% and 85% in 2018 respectively
- Stabilising emergency bed days in hospitals
- Narrowing the gap to the rest of England in respect of smoking
- Increasing rates of physical activity – closing the gap between Greater Manchester and the England average.

Partnerships
37 NHS organisations and local authorities in Greater Manchester signed a separate Greater Manchester health and social care devolution Memorandum of Understanding (MoU).

Brought together 15 NHS Trusts and Foundation Trusts, 12 clinical commissioning groups and 10 boroughs: Bolton, Bury, Heywood, Middleton and Rochdale (HMR), Manchester, Oldham, Salford, Stockport, Trafford, Wigan, and Tameside and Glossop.

Target audience
Population wide.

Evidence of success
Health and social care devolution in Greater Manchester is still in transition, and therefore it is difficult and too early to assess success.

Success will be measured against the following outcomes:
- More people supported to stay well and live at home for as long as possible
- More of Greater Manchester children school-ready at five years old
- Fewer Greater Manchester babies with a low birth weight
- Reduced number of obese or overweight children and adults
- Patients with long-term conditions feeling more supported to manage condition
- Increased cancer survival rate.

Potential cost savings
No available evidence at present, however in the broad context, Manchester faces significant financial challenges, with an estimated £176m gap in social care by 2021.

Applicability potential for diffusion
At this point, no other areas are looking likely to embark on health and social care devolution following the Greater Manchester model, though some quite similar reforms, particularly to the organisation of the NHS, are being pursued elsewhere.

Current status/future
See above on applicability/potential for diffusion.

Sources
Greater Manchester Health and Social Care Partnership (2019) Available at: http://www.gmhsc.org.uk
**Intervention Case Study 3**

**Coventry: A Marmot City**

**Location**
Coventry

**The challenge**
Index of Multiple Deprivation ranked Coventry 46th most deprived local authority out of 326 (using IMD 2015 rank of average rank - local authority district summaries). Large inequalities in life expectancy across the city, men in the most affluent will live on average 9.4 years longer than men in the most deprived areas.

**Brief description**
Developed a system-wide approach to its health and wellbeing strategy based on social determinants and health equity principles.

Based on three cross-cutting principles:
- Ensure prevention and early intervention is prioritised
- Ensure resources are target-based on need and that interventions are targeted in the right place
- Ensure health, social value and asset-based approaches are reflected in policies and decision-making

Focused on three key areas:
- Reduce health and wellbeing inequalities (including but not exclusively improve levels of education, employment and training, help vulnerable people into work, improve the quality of jobs).
- Improve the health and wellbeing of individuals with multiple complex needs.
- Develop an integrated health and care system.

**Instigator/catalyst and implementation journey**
In 2013 Coventry was one of seven cities in the UK to become a Marmot City and received national expertise and support to reduce health inequalities.

The transfer of public health to local government, combined with strong local leadership and support from the UK Marmot Network provided the catalyst to broaden their ownership of the health inequalities agenda.

**Partnerships**
Coventry City Council and other public and voluntary sector organisations came together to deliver projects and interventions and design new ways of working.

Partners include: West Midlands Police, West Midlands Fire Service, Coventry and Rugby Clinical Commissioning Group, Voluntary Action Coventry, Coventry and Warwickshire Chamber of Commerce, Local Enterprise Partnership and DWP.

**Target audience**
Targeted resources based on need.

**Evidence of success**
Awaiting formal evaluation commissioned end of 2018.

However early signs of progress against the programme indicators in 2017/18 include: improvements in school readiness at the age of five, health outcomes, life satisfaction, employment and reductions in crime in priority locations. For example, 187 young people with disabilities or health problems accessing Ambition Coventry work coaches (against a target of 170), and 254 people supported by Ambition Coventry into employment, education or training.

**Potential cost savings**
No cost benefit or Social Return on Investment model yet available. In Coventry the cost of health inequalities were estimated at £170m. However, it may be several years before it is improved economic outcomes.

**Applicability potential for diffusion**
High: Many of the elements of Coventry’s Marmot approach are appropriate for new models of care and other health system approaches.

At a local level, over 70% of local authorities are working to embed ‘Marmot’ principles in their approaches to improving health and reducing inequalities (2014 UCL).

Also, high European applicability, discussions underway for Bologna to be a Marmot City.

**Current status/future**
In 2016 the Marmot team and PHE committed to working with Coventry for a further three years.

Ongoing priorities are tackling inequalities disproportionately affecting young people and ensuring economic growth benefits all. An additional priority is the mitigation and prevention of poverty across the city.

**Sources**


University College London. Available at: https://www.ucl.ac.uk/impact/case-studies/2014/dec/marmot-review-national-and-local-policies-redress-social-inequalities-health
Future opportunities - community and voluntary sector

Across the academic literature on tackling the social determinants of health, the role of the community and voluntary sector can often be overlooked. As a result of decentralisation and the pervasive narrative of individual responsibility for health over collective action, it is important to re-evaluate and re-assess the vital role communities and the voluntary sector can play in shaping their own health agenda. Admittedly the voluntary sector operates at all levels, so their inclusion in this chapter is not to overlook the key national role charities can play in shaping policy direction and strategy, but for the purposes of this report, we will examine how the charity sector can galvanise change at a grass roots level.

Greater integration and engagement of community assets

While technically devolution should have heralded a shift to greater local accountability and engagement, this has not necessarily always felt to have been the case. Many STP plans, for example, were met with varying degrees of mistrust, with concerns about cuts to services and accusations of being developed ‘in secret’. Creating open partnerships based on community development and integration is key, as our examples below highlight.

Surrey Heartlands Health and Care Partnership – the Partnership built open, transparent and inclusive plans, based on a strong engagement model. It engaged the populace at scale including a citizen’s panel, monthly online surveys, citizen ambassadors, use of focus groups and deliberative research methods. Now one of the 14 ICSs across England, with a unique devolution agreement, Surrey Heartlands has recently refreshed its vision and priorities with a strong focus on the ‘first 1000 days’ and the wider determinants of health, with the ambition to significantly reduce health inequalities and create real generational change in the longer-term. Importantly the partnership intends to become a full ICS by April 2019.40

Between 1926 and 1950, the Pioneer Health Centre in Peckham offered members access to medical expertise, health checks, pre- and postnatal care, a children’s nursery and social activities

The Peckham Experiment – albeit an historical example, The Peckham Experiment demonstrates a community-led initiative designed to determine whether people as a collective, given the opportunity, take a vested interest in their own health and fitness and expend effort to maintain it. The experiment took place between 1926 and 1950, initially generated by rising public concern over the health of the working class and an increasing interest in preventative social medicine. The first Pioneer Health Centre offered members access to medical expertise, health checks, pre- and postnatal care, a children’s nursery and social activities. In many ways, the Health Centre was far ahead of its time with its promotion of holistic wellness, disease prevention, healthy lifestyles and the importance of social interaction. The promoters had identified that the general health of a family and community were as important as tackling individual health – themes that we are still struggling to tackle and implement today.41

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41 Almost History (2019) The Peckham Experiment. Available at: http://www.vaguelyinteresting.co.uk/the-peckham-experiment
Identification of need for interventions from within communities

As referenced in earlier chapters, it is common sense to assume identification of need and resources could be best served at local and community level. There is also emerging evidence that health outcomes could be affected by the amount of control that individuals and communities have over decisions that affect them collectively. Initiatives that aim to promote collective control, through co-production and community engagement, for example, increase social capital, social cohesion and social connectedness in communities and therefore need to be encouraged and fostered. However, restricted funding, limited infrastructure and capacity has often hampered small grass roots organisations for bidding for or winning larger or more sustainable funding pots. Furthermore, interventions to tackle the social determinants of health at the local level have been historically hard to win from public health grants.

The Health Foundation – The Health Foundation launched a new grant programme to fund partnership projects between UK Public Health Network organisations and partners from outside of the public health community. The projects have to demonstrate the potential for improving people’s health by tackling one or more of the social determinants of health. The projects had to cover four key areas of interest: Early Years and education, work and income, housing and places and communities. Five projects were awarded £40–60,000 and will run for 12–18 months until 2020. See In Focus box for further details on one of the projects.

The People’s Health Trust – the Trust was set up to address health inequalities in Great Britain and is an independent charity funded by 12 local society lotteries and the money they raise through The Health Lottery. They encourage resident-focused approaches as a means of addressing the underlying structural causes of health inequalities. They support local people to tackle the wider social determinants of health at a local level. The Trust believes that supporting local communities to take greater control over what happens in their neighbourhood is key to creating new and stronger relationships, improving confidence and encouraging a greater sense of belonging.

In Focus: The Health Foundation funded project – promoting equality and social justice in housing in Wales

- Project run by Public Health Wales, in partnership with Tai Pawb, an organisation promoting equality and social justice in housing in Wales, and the Wales Strategic Migration Partnership.
- This project focuses on the role of community cohesion and connection in shaping health.
- It will test the impact of an asset-based community development approach on building the social networks of social housing tenants and people seeking sanctuary (asylum seekers and refugees)
- It will engage 50 people from these groups and help them identify community assets and local barriers to integration, health and wellbeing.
- The project will formulate an approach that leads to greater public understanding of the range of communities in their local area, and improved relationships between people seeking sanctuary, and settled communities in Wales. Following evaluation, a toolkit will be created to support local service providers to more effectively engage with groups at risk of exclusion.

Source: https://www.health.org.uk/improvement-project/community-assets-participation-and-integration-taking-action-locally-capital

42 The People’s Health Trust (2019) Available at: https://www.peopleshealthtrust.org.uk/about-us/what-we-do
In Focus: Local Conversations

Local Conversations is a locally-led programme which aims to reduce health inequalities in 21 neighbourhoods in Great Britain, experiencing serious structural disadvantages. People’s Health Trust has invested £8.7m to-date. The programme focuses on ensuring that control for the design, development and delivery of local initiatives is in the hands of local people. The programme is underpinned by a theory of change and a strong practitioners’ network.

Research into the underlying social and economic determinants of health shows that an important contributing factor to health is how far people can control what happens to them. The programme is building evidence about the impact of control and social connections. It recognises the local wisdom and assets of residents and looks for evidence of improved pathways to health through, stronger relationships, improved confidence and aspiration, purpose and control over resources.

The New Economics Foundation’s evaluation of the Local Conversations Programme notes growing feelings of influence emerging for local people, over things that matter to them and their health. 81% of participants said that “when people in this area get involved in their local community, they really can change the way that their area is run”, compared with just 51% in areas experiencing similar levels of disadvantage (survey responses from over 1000 residents, compared with Community Life survey 2017).

This may be in part due to the social connections that are being developed through the programme - 47% of participants in Local Conversations say hello to their neighbours on most days compared with just 21% for England and 18% in areas experiencing similar levels of disadvantage.

At a local level, the programme is providing impetus to neighbourhoods who are making inroads into tackling the social determinants of health by mobilising residents around things that are important to them and taking action collectively. At this stage, this is most often being exemplified by improvements to the local environment through local action. Local Conversations is also providing a platform for residents to grow their influence over local agencies and services, who are engaging with residents to better listen and respond to their needs.
Conclusion
Beyond the NHS: Addressing the root causes of poor health

Delivering a social model of health

With the health and prosperity of the nation stagnating, now is the time to be daring and disrupt the status quo. The tried and tested approach of continuing to set aside more money for the NHS while cutting back other services simply is not working. At this critical moment, it is important to think again about health policy – to shift away from the narrow definition of health simply relating to the work of the NHS and to consider health in all policies and places. To recapture the spirit of Aneurin Bevan – who was Minister for Health with a remit for housing – there is an urgent need to reorient health policy towards tackling the root socioeconomic causes of poor health. From poor-quality housing to knife crime, from skills deprivation to in-work poverty and homelessness, the great socioeconomic challenges of our time are also our great health challenges.

There is an urgent need to reorient health policy towards tackling the root socioeconomic causes of poor health. From poor-quality housing to knife crime, from skills deprivation to in-work poverty and homelessness, the great socioeconomic challenges of our time are also our great health challenges.

The NHS has substantial support across the political spectrum and will remain a cornerstone of health policy irrespective of the government in charge. Shifting to a social model of health also requires strong political buy-in at national and local level, and there are compelling arguments that can appeal to both the political right and the left. For the right, there is a strong value-for-money argument. Continuing to put money into the health service while cutting other government spending is simply not working – the health of the nation is flatlining. Such an approach is inefficient and there is a pressing need to explore alternative models. A more efficient approach might include reconfiguring public spending to emphasise critical non-health social spending. It might include more power and resource for local areas to enable better targeting of the causes of poor health. For the left, there is a strong inequalities and social justice argument. Addressing the social determinants of health can form a key part of a broader strategy for reducing social and economic inequality.

Cutting across the political divide is the unarguable fact that health is an economic and social asset to be nurtured, for without health there is no prosperity. This inquiry's final report has reinforced this point and provided practical suggestions of how to better integrate socioeconomic within health policy making and vice versa. In this context, we have articulated what a social model of health might look like and how it can be delivered. It is predicated on five overarching themes:

1. More government spending on non-health related functions, and part of the health prevention budget ring-fenced for addressing the social determinants of poor health.
2. Government departments at national and local level putting health first when developing public policy and evaluating impact.
3. Champions for the social determinants of health embedded at national (CMO) and local level (Public Health Directors).
4. The NHS getting serious about its role as an ‘anchor’ institution – especially in poorer places.
5. Greater powers and resources for local areas to tackle entrenched deprivation in hard-to-reach communities.

The health of the nation depends on a multitude of factors, some of which we can influence and some of which we cannot. But as the examples in this report show, it is possible to address the root causes of poor health at national and local level through concerted and coordinated action across different functions of government and society. These examples are cause for optimism, showing how even in resource constrained systems, effective change is possible. In this context, the recommendations set out here are not the only ones required to deliver a social model of health, but we hope that they are a strong point of departure as we set out a new course for better health and care for all.

While this report is the final in the CPP’s health and social care inquiry, we will continue to pursue this agenda to boost the nation’s health and deliver shared prosperity.
Summary of recommendations for addressing social determinants at all levels

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
<th>Levers</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no government champion of the social determinants of health.</td>
<td>Strengthen the role of the CMO by statute as it pertains to social determinants and inequalities including the creation of an information strategy on social determinants.</td>
<td>The remit of the CMO should be revised to explicitly include social determinants of health and the role should be made accountable to the Cabinet Office and the Health and Social Care Select Committee.</td>
</tr>
<tr>
<td>Raising health spending relative to other government functions is inefficient and fiscally unsustainable.</td>
<td>Raise social and other forms of government spending relative to health spending.</td>
<td>OBR to conduct a rigorous assessment of the impact of non-health spending on health outcomes as part of a broader assessment of the sustainability of health and social care funding.</td>
</tr>
<tr>
<td>Lack of cross-government action on tackling the social determinants of health.</td>
<td>Government to review the role of each department in tackling social determinants of health with the goal of producing a set of cross-departmental commitments around health inequalities.</td>
<td>Cabinet Office to initiate a cross-governmental review of action on the social determinants of health and report to the Health and Social Care Select Committee.</td>
</tr>
<tr>
<td>Social determinants do not explicitly feature in the NHS’s Long Term Plan.</td>
<td>Embed social determinants within the inequality adjustment framework for local areas.</td>
<td>NHS England, PHE and others must consider how and whether interventions that seek to address social determinants could be included in the menu of options currently being drawn up that if adopted locally would contribute to the goal of reducing health inequalities.</td>
</tr>
<tr>
<td>The NHS is a major UK employer - particularly in deprived places yet its role and remit as an “anchor” institution remains unclear.</td>
<td>Accelerate the review and roll-out of NHS initiatives that embed good practice in terms of employment, training and procurement in deprived areas.</td>
<td>NHS England should go beyond their review of the NHS as an anchor institution, to providing incentives and stimulus to create pilots across selected sites and evaluate the impact within the next five years. NHS anchor institutions should set ambitious targets for baseline spend in their local area.</td>
</tr>
<tr>
<td>The role of social factors in determining health outcomes is often overlooked in clinical settings.</td>
<td>Strengthening and mandating the role of the social determinants of health in clinical education and training.</td>
<td>NHS England and HEE should develop and embed a population health approach within general practice and the broader clinical workforce through the forthcoming Workforce Implementation Plan.</td>
</tr>
<tr>
<td>Social prescribing is becoming increasingly popular, but little is known about whether such activities are working in deprived places.</td>
<td>We need a stronger evidence base in terms of understanding eligibility, take up and effectiveness in delivering better health and social value.</td>
<td>PHE should evaluate the impact of social prescribing to understand if those most in need are being reached with a view to a more targeted offering for disadvantaged groups and places.</td>
</tr>
<tr>
<td>Problem</td>
<td>Solution</td>
<td>Levers</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Local authorities are critical agents in tackling the root causes of poor health but have seen their funding cut.</td>
<td>There must be an improved settlement for local authorities while public health budgets must be protected.</td>
<td>The Comprehensive Spending Review offers the opportunity to give back to those communities that have been hit hardest by severe spending cuts.</td>
</tr>
<tr>
<td>Deprived places are increasingly falling behind in terms of health and wealth.</td>
<td>The allocation of funding for local authorities and the public health grant must take deprivation into account when dispersing funds.</td>
<td>Ministry of Housing, Communities and Local Government (MHCLG) should take population size and deprivation into account in the local authority allocation formula and not just population as currently proposed. The NHS and DHSC should agree with ACRA’s recommendation for enhanced deprivation targeting through the public health budget.</td>
</tr>
<tr>
<td>The complex and fragmented nature of local government and local health structures and institutions makes leadership and accountability on health a significant challenge.</td>
<td>Develop and learn from emerging whole systems approaches to health in large and complex areas.</td>
<td>Devolution of responsibility for health has provided variation in the system and this presents a significant opportunity to share lessons from their different approaches including (but not limited to): Greater Manchester, Coventry, Surrey Heartlands, Devon.</td>
</tr>
<tr>
<td>On average, universal prevention interventions for smoking and obesity seem to be working, but less so in deprived places.</td>
<td>To help support local behavioural change, we need professionals embedded in deprived communities with a focus on the drivers and barriers for action.</td>
<td>Local authorities must identify, incentivise and nurture local community hubs that are delivering critical services in hard to reach places.</td>
</tr>
<tr>
<td>Variability in the role and budget freedom of Public Health Directors.</td>
<td>Strengthen their role within current and future framework, provide greater freedom and discretion for their deployment of public health budget to tackle social determinants.</td>
<td>Be afforded a greater role in the development and delivery of the ICSs, more resource through increased budgets and greater discretion about how to use their resources.</td>
</tr>
<tr>
<td>Criticisms of lack of accountability and involvement of individuals and communities for ownership over tackling and identifying social determinants of health.</td>
<td>Greater integration and engagement of community assets.</td>
<td>Need to foster greater engagement and collaboration with communities, for example Surrey Heartlands Health and Care Partnership created an open, transparent and inclusive plans, built on a strong engagement model.</td>
</tr>
<tr>
<td>Insufficient funding and support for community and voluntary organisation to develop and roll out projects tackling social determinants.</td>
<td>Identification of need for interventions from within communities.</td>
<td>Improved and targeted funding for projects tackling social determinants with stronger networks and support from regional and local public health networks and bodies. See recent round of grants from The Health Foundation and People’s Health Trust.</td>
</tr>
</tbody>
</table>
Appendix A

The human cost of socioeconomic inequality

Background and motivation

We attempt to estimate the total years of life lost in England due to the effects of social determinants. In line with the analysis of the Marmot Review, we do this by simply looking at how much longer people live in areas that are least deprived. We develop the analysis first by assigning the life lost to each of five social determinants. Second, we model the impact of different social determinants in different places. Our analyses are aimed at raising awareness of the different social issues affecting health in different areas, rather than providing precise estimates.

Method – calculating total life years

We report that almost 80m years of life are being lost by the population of England due to socioeconomic deprivation. The premise of the calculation is that all parts of the country should be able to have the life expectancy of the least socially deprived areas. This is presented as the years of life that will be lost by everyone alive in England today.

Specifically, we define the least socially deprived areas as the 10% of local authority districts (LA) with the best adjusted IMD scores, taking the unweighted mean life expectancy (LE) across these 32 LAs as our baseline. The adjusted IMD score is the 2015 IMD score with the health and employment domains excluded, composed using the Office for National Statistics (ONS) recommended methodology. We exclude health and employment as these are at least partially measures of health outcomes. Using the standard IMD would have given the slightly higher figure of 84m.

Local authority life expectancies by age are based on ONS data for 2014-16, which report LE at birth and at 65. We interpolate between these ages, and decay above 65, using LE by age for England. For healthy life expectancy, we apply the proportion of life spent in good health, which is provided by county or unitary authority. The difference in LE between each local authority and the baseline is then applied to the population by age. All calculations are done separately for males and females and then summed.

Our methodology differs from the Marmot analysis in looking at whole local authorities, not Middle Super Output Areas, and in using a composite IMD, not simply the income domain, and using period life expectancy, not cohort. Each of these differences reduce the reported total.

44 ONS (2018a) Life expectancy at birth and at age 65 years by local areas, UK (December 2018).
45 ONS (2018b) Health state life expectancy - all ages, UK (December 2018)
Method – splitting the life years lost by social determinants

We divide the almost 80m years of life lost into contributions by each of five social determinants: education (30m), income (18m), employment (15m), crime (8m) and housing (8m). This is based on a regression looking at the extent to which each determinant explains variation in life expectancy between local authorities in England. We also include place-based factors of rurality and region which are powerful predictors of life expectancy. This work is similar to earlier work by The King’s Fund on older data.\footnote{Buck, D. and Maguire, D. (2015) Inequalities in life expectancy Changes over time and implications for policy. The Kings Fund. Available at: https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/inequalities-in-life-expectancy-kings-fund-aug15.pdf. Unlike The King’s Fund, we do not include directly behavioural factors such as smoking or diet so that the determination of these by social factors is picked up.}

Data

The social determinants’ data is, with exceptions, based on the 2015 indices of deprivation (2015 ID).\footnote{MHCLG (2015) op cit.} The exact data used is described in Table 1. Other indices of deprivation domains which did not have a significant relationship with either male or female life expectancy were excluded.

Table 1: Social determinant data sources used

<table>
<thead>
<tr>
<th>Social Determinant</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>The 2015 ID domain ‘Education, Skills and Training’. As for all ID variables, the ‘average rank’ by local authority district is used. A higher rank is more deprived.</td>
</tr>
<tr>
<td>Crime</td>
<td>The 2015 ID domain ‘Crime rank’ by local authority district is used. A higher rank is more deprived.</td>
</tr>
<tr>
<td>Housing</td>
<td>The 2015 ID sub-domain ‘Indoors living environment’. This has been aggregated to local authority level by CPP using ONS recommended method. Unlike other domains, a higher rank is less deprived.</td>
</tr>
<tr>
<td>Employment</td>
<td>The unemployment rate, April 2012-March 2013.\footnote{ONS (2019b) Regional labour market statistics: M01 Model based estimates of unemployment (April 2019). Available at <a href="https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/unemployment/datasets/modelledunemploymentforlocalandunitar-authoritiesm01%7D">https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/unemployment/datasets/modelledunemploymentforlocalandunitar-authoritiesm01}</a> This period was used to match 2015 ID inputs. The IMD domain was not used as this includes measures of several incapacity benefits, meaning that we would be directly measuring health outcomes, rather than the social factors which might explain them. Data expressed as percentage points.</td>
</tr>
<tr>
<td>Income</td>
<td>Gross disposable household income per capita, 2013.\footnote{ONS (2018c) Regional gross disposable household income by local authority (May 2018). Available at <a href="https://www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome/datasets/regionalgrossdisposablehouseholdincomeadlib/localauthoritymthheuk%7D">https://www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome/datasets/regionalgrossdisposablehouseholdincomeadlib/localauthoritymthheuk}</a> This period was used to match 2015 ID inputs. Average income had more explanatory power than income deprivation, which was also not used as its measurement is based partly on an incapacity benefit. Data expressed as £000s.</td>
</tr>
<tr>
<td>Rurality</td>
<td>Rural including hub towns’ population as % of total population 2011 (ONS). Data expressed as percentage points.</td>
</tr>
<tr>
<td>Region</td>
<td>England region in which LA is situated. Each region is included as a dummy variable which is presented relative to London.</td>
</tr>
</tbody>
</table>
Regression results

Fig. 7 and Fig. 8 show the results of the regressions used. Please refer to Table 1 for the units and signs with which to interpret the coefficients.

**Fig. 7: Regression results: female life expectancy**

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Female life expectancy at birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>0.89</td>
</tr>
<tr>
<td>R Square</td>
<td>0.80</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.79</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.61</td>
</tr>
<tr>
<td>Observations</td>
<td>324</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t-Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>84.64</td>
<td>0.41</td>
<td>205.12</td>
<td>0.00</td>
<td>83.82</td>
</tr>
<tr>
<td>Employment</td>
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<td>0.03</td>
<td>-3.32</td>
<td>0.00</td>
<td>-0.16</td>
</tr>
<tr>
<td>Income</td>
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<td>0.01</td>
<td>6.60</td>
<td>0.00</td>
<td>0.05</td>
</tr>
<tr>
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<td>0.000012</td>
<td>-8.17</td>
<td>0.00</td>
<td>-0.000121</td>
</tr>
<tr>
<td>Crime</td>
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<td>0.000012</td>
<td>-1.70</td>
<td>0.09</td>
<td>-0.000046</td>
</tr>
<tr>
<td>Housing</td>
<td>-0.000009</td>
<td>0.000009</td>
<td>0.98</td>
<td>0.33</td>
<td>-0.000009</td>
</tr>
<tr>
<td>Rurality</td>
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<td>0.00</td>
<td>3.37</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>North West</td>
<td>-0.37</td>
<td>0.34</td>
<td>-10.08</td>
<td>0.00</td>
<td>-1.63</td>
</tr>
<tr>
<td>Yorkshire and The Humber</td>
<td>-0.35</td>
<td>0.17</td>
<td>-2.13</td>
<td>0.03</td>
<td>-0.68</td>
</tr>
<tr>
<td>North East</td>
<td>-1.31</td>
<td>0.24</td>
<td>-5.44</td>
<td>0.00</td>
<td>-1.78</td>
</tr>
<tr>
<td>East Midlands</td>
<td>-0.38</td>
<td>0.14</td>
<td>-2.75</td>
<td>0.01</td>
<td>-0.66</td>
</tr>
<tr>
<td>East of England</td>
<td>0.08</td>
<td>0.14</td>
<td>0.58</td>
<td>0.56</td>
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</tr>
<tr>
<td>South East</td>
<td>-0.05</td>
<td>0.13</td>
<td>-0.43</td>
<td>0.67</td>
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</tr>
<tr>
<td>South West</td>
<td>-0.01</td>
<td>0.15</td>
<td>-0.08</td>
<td>0.93</td>
<td>-0.30</td>
</tr>
</tbody>
</table>

**Fig. 8: Regression results: male life expectancy**

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Male life expectancy at birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>0.92</td>
</tr>
<tr>
<td>R Square</td>
<td>0.84</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.83</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.65</td>
</tr>
<tr>
<td>Observations</td>
<td>324</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t-Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
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<td>80.19</td>
</tr>
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<td>-3.65</td>
<td>0.00</td>
<td>-0.18</td>
</tr>
<tr>
<td>Income</td>
<td>0.07</td>
<td>0.01</td>
<td>6.08</td>
<td>0.00</td>
<td>0.04</td>
</tr>
<tr>
<td>Education</td>
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<td>-10.13</td>
<td>0.00</td>
<td>-0.000015</td>
</tr>
<tr>
<td>Crime</td>
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<td>-2.19</td>
<td>0.03</td>
<td>-0.000055</td>
</tr>
<tr>
<td>Housing</td>
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<td>0.000009</td>
<td>4.63</td>
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<td>-0.000025</td>
</tr>
<tr>
<td>Rurality</td>
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<td>0.00</td>
<td>5.85</td>
<td>0.00</td>
<td>0.01</td>
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<tr>
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<td>0.14</td>
<td>-7.78</td>
<td>0.00</td>
<td>-1.41</td>
</tr>
<tr>
<td>Yorkshire and The Humber</td>
<td>-0.37</td>
<td>0.18</td>
<td>-2.10</td>
<td>0.04</td>
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<td>0.02</td>
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<td>0.15</td>
<td>-0.33</td>
<td>0.74</td>
<td>-0.35</td>
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</table>
**Contribution to life years lost**

Years lost due to each factor is then calculated by dividing the total years lost for each of males and females proportionately to the standardised regression coefficients for each of the five social determinants. This reflects both the strength of the relationship between social determinant and life expectancy and the variation of the social determinants between local authorities.

**Method – by local authority**

In addition to looking nationally we report the life years lost per person in individual local authorities due to different social determinants. These are reported fully in the interactive tool on our website. This is done by combining the coefficients from our regression models with the actual levels of social factors in each local area. The sum of these effects is therefore modelled life expectancy rather than the actual life expectancy.

The results at local authority level show the expected life lost per person at birth. This is not directly comparable with the national numbers which show total life lost across people of all ages and is associated with a slightly different methodology. For our local authority results we take the same regression results reported above, and use the coefficients from these to estimate the impact of being in each local authority relative to our baseline – the average of the 10% least deprived local authorities.50

We do not present values for the 10% least socially deprived areas as these form the baseline. We also zero any positive values which result from an area having a better social determinant score than our top 10% baseline.

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**Interpretation**

Our results quantify the well-established relationship between health outcomes and social factors. The headline figure of almost 80m represents this relationship and is robust to the particular measure of deprivation used. However, the methodology used does not isolate the causal relationship of social factors determining life expectancy.

**Endogeneity:** We have taken some steps beyond similar work to remove endogeneity from our work. Notably we have removed the impact of incapacity benefit claimants from the IMD measure of employment. However, there will still be effects of health on our measures of social determinants, not just the impact of social determinants on health, that will be captured in our analysis.

**Breakdown by social determinant:** We break down the total years of life lost due to social factors into values for each factor. These figures, both at a national and local level, are intended to be seen as indicative of the scale of each factor, rather than precise estimates. Estimating the values is difficult due to the high correlation between the explanatory factors. The effect of this can be seen in the high standard errors of the model. Therefore, whilst we would be confident that the impact of crime on life expectancy is less than that of education, we would not be confident that it is higher than that of housing. There will also be idiosyncrasies with the particular measures used, and the potential of unmodeled factors to be affecting results.

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50 Specifically, the estimated impact for a social determinant, S, for men in local authority, L, is equal to: the level of S in L, minus the level of S in our top 10 and of local authorities, multiplied by the coefficient on S from our male regression.
The importance of non-health spending

Summary

Our new analysis suggests policymakers interested in improving population health should pay far more attention to broader social and education spending rather than simply health spending. In a UK context this is particularly significant given health spending accounts for an increasing share of overall government expenditure. Such a strategy will not be conducive to supporting the health of the nation in the long run.

Background and motivation

It is widely acknowledged that health is determined by a multitude of different factors with over 50% explained by socioeconomic and environmental drivers. But what is less well known is the extent to which different government spending decisions impact on health outcomes. For instance, if improving the health of the nation is a key policy goal, to what extent should the government prioritise health spending over welfare, education or other areas? Our analysis seeks to unpick this issue by looking at government spending allocations and health outcomes across developed countries.

Data and methods

The basic set-up for our analysis is similar to the “within country” analysis of Rubin et al (2016) on the links between social expenditure and health outcomes. But we include more years’ worth of data and education spending as an additional explanatory variable.

Data

In order to understand the importance of government spending on health outcomes, we build a panel dataset of developed countries using OECD and World Bank data from 1980. The OECD statistical database provides health outcomes data as well as aggregated and disaggregated social expenditure as a proportion of GDP while the World Bank provides data on education expenditure as a proportion of GDP. Variables include:

- Health outcomes
  - Life expectancy at birth
  - Infant mortality rate per 1000 live births

- Social spending variables (all as % of GDP)
  - Education spending
  - Total social spending

  Social spending disaggregated by:
  - Health spending
  - Housing
  - Active Labour Market Policies (ALMP)
  - Family
  - Incapacity
  - Unemployment
  - Old age (including survivors)

- Additional control variables
  - GDP per person (we use the natural log of GDP for the econometric models).

Method

We use fixed effects regression analysis to determine statistical relationships between variables. In panel data it is important to account for country and time specific effects to reduce the chance of bias in our results. There are many reasons that countries differ from one another in health outcomes, which cannot be captured by data analysis of this sort – i.e. cultures and behaviours. Similarly, there may be global or regional economic or health events that are important in determining health outcomes which are beyond the scope of this study (i.e., global recession or pandemic). We focused our analysis on ‘within country differences’ (rather than between), while controlling for year effects which therefore reduce the likelihood of our results being biased to these country and time-specific factors.

Headline results

Does social and education spending improve health outcomes?

- Health spending and total social spending (excluding health) are positively correlated with life expectancy; as spending on each goes up as a % of GDP, life expectancy increases.
- Education and total social spending (excluding health) are both correlated with reduced infant mortality; as spending on each goes up as a % of GDP, infant mortality declines. The effects of health spending are insignificant.

Which social spending areas are linked to better health?

- Increased spending on incapacity support, old age, unemployment and housing are all positively correlated with improved life expectancy.
- Increased spending on ALMP, housing and old age spending are all correlated with reduced infant mortality.

Some social spending may take longer to feed into better health.

- When lagging all social spending variables (excluding health) by five years, many of the social spending variables become insignificant, but family spending and ALMP become positively correlated with increased life expectancy. Indeed, the correlation between family spending and life expectancy is even stronger with a 10-year time lag. This suggests, for certain social spending areas, it may take longer for spending decisions to result in health improvements.
- Lagging the social spending variables does not have quite as dramatic an impact for infant mortality but lagged values for old age spending and education spending remain related to reduced infant mortality.

Implications for public policy

The above results show correlation not causation. Also, the social policy variables are strongly correlated with one another, so we cannot rule out multicollinearity which makes interpretation difficult. Nevertheless, the results provide robust evidence that social spending beyond health spending is an important driver of population health. Social spending excluding health is linked to better life expectancy and reduced infant mortality while education spending is also linked to reduced infant mortality. Within the specific domains of social spending, old age and housing spending is correlated with improved life expectancy and reduced infant mortality. The impacts of social spending are likely to be dynamic rather than static over time. For instance, social spending on families is initially insignificant, but after a five-year delay becomes positively related to life expectancy, and the relationship is even stronger after 10 years. Finally, it is worth noting that different types of social spending may impact different health outcomes. For instance, social spending on incapacity and unemployment support is positively correlated with life expectancy, but insignificant when it comes to infant mortality.

Overall, our analysis suggests policymakers interested in improving population health should pay far more attention to broader social and education spending rather than simply health spending. In a UK context this is particularly significant given health spending accounts for an increasing share of overall government expenditure. Such a strategy will not be conducive for supporting the long-run health of the nation.
About the health and social care inquiry

In May 2018, CPP embarked on this ambitious programme of research, consultation and engagement guided by an authoritative board of clinical and non-clinical professional advisors. In June 2018, Diagnosis critical was published, which set out to show the impact that financial pressures and social conditions exert on life expectancy and hospital admissions, providing new analysis on stark population inequalities and the role of place in enabling healthy lives. It identified 32 ‘Risk Zones’ where residents are hit first by a social environment that causes ill health and then by a care system unable to cope with their illnesses. The report also started exploring different potential funding models, given the central ageing projections.

This report was followed by a public deliberation on NHS funding and system reform to collect qualitative data on public attitudes towards health and social care funding, which demonstrated the difficulty in focusing public attention on the fundamental causes of ill health. After rigorous discussion, participants were asked to vote on where to spend additional government spending: improving health and social care services, keeping people healthy throughout their lives, or a combined approach. The majority of participants (39 out of 50) voted for a combined approach. However, when forced to decide between the two options, 70 % suggested the money should be spent on health and social care services, while the remaining 30 % of participants said it should be spent on keeping people healthy. This demonstrates how far the public narrative has to move in order to understand how genuinely to reduce demand and funding in the NHS – by addressing the root causes, the social determinants.

In December 2018 we published Beyond sticking plasters, which consolidated the evidence base on place-based inequalities in healthcare and outcomes through the creation of a new Fragmentation Index. The Index shows the importance of co-terminosity – that is, where people live in areas in which the different bodies responsible for healthcare are geographically misaligned, they are more likely to end up in hospital and then find it harder to be discharged if they do. In addition to the effect of variation in local levels of fragmentation, it also demonstrated that the national slowdown in health improvements are fundamentally driven by place-based inequalities. These inequalities are largely determined by social factors including employment, skills, education and training, and quality of housing.

This inquiry to date has set out a compelling case for the need to rethink the relationship between health, wealth and income inequalities at the local level and how the solution will primarily be found beyond the NHS. This final report builds on this evidence to make recommendations for a new social model of health, fit for all in the long term.
Researched and written by Sally Marie Bamford, Ben Franklin and John Dudding.

Designed by ZPB Associates.

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About the Centre for Progressive Policy

The Centre for Progressive Policy is a 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.

Inclusive growth is one of the most urgent questions facing advanced economies where stagnant real wages are squeezing living standards and wealth is increasingly concentrated. CPP believes that a new approach to growth is needed, harnessing the best of central and local government to shape the national economic environment and build on the assets and opportunities of place.