

A vision for population health

Towards a healthier future

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Key messages

- Substantial improvements in health over the past 100 years mean that people are living longer and healthier lives than ever before.
- Despite these improvements, England lags behind other countries on many key health outcomes, increases in life expectancy have stalled and health inequalities are widening.
- The NHS has a critical part to play but these challenges cannot be met by the health and care system alone; a much broader approach that pays more attention to the wider determinants of health and the role of people and communities is required.
- Our vision for population health is to reduce inequalities and achieve health outcomes on a par with the best in the world. We have developed a framework for population health based on four pillars:
 - the wider determinants of health
 - our health behaviours and lifestyles
 - the places and communities in which we live
 - an integrated health and care system.
- Achieving our vision will require action at national, regional and local levels, drawing on the assets of people and communities. Improving population health is a shared responsibility and progress also depends on supporting people to live healthier lives.
- Political leadership is essential to ensure that population health is a key priority for the health and care system and across government. This should include setting ambitious and binding national goals to improve health outcomes and developing a new cross-government strategy to reduce health inequalities.
- Local system leaders and politicians should champion population health. Local authorities have a key role to play working with the NHS and other partners including through health and wellbeing boards, sustainability and transformation partnerships (STPs) and integrated care systems (ICSs).



- National and local accountability for improving health is fragmented and unclear. The roles of NHS England and Public Health England in particular should be clarified. As part of this, the role of Public Health England should be reviewed to ensure it has the authority to provide effective leadership and challenge to government.
- Funding for public health should be restored in the Spending Review as the first step towards re-balancing spending across the four pillars.
- Building on the success of the Soft Drinks Industry Levy, the government should be bold in using taxation and regulation to support health improvement.
- In recent years, The King's Fund has played a key role in promoting integrated care and supporting place-based systems of care. This report marks the next stage in our journey and signals that population health will be a key focus of our work in future.



1 Introduction

This report sets out The King's Fund's vision for population health, our reasoning behind why such a vision is urgently needed and the next steps on the journey towards achieving it.

Taking the long view, we have never been healthier. As Professor Sir Angus Deaton has elegantly set out, the Western world has made a 'great escape' from the misery of infant death and short malnourished lives (Deaton 2013). This has been due to economic growth and improved living conditions, scientific discovery and its quicker dissemination and implementation, and strong institutions, including, in the UK, a comprehensive welfare state that has included the NHS but goes way beyond it (Timmins 2017).

Despite the 'great escape', we stand on the edge of a precipice. Progress against many key health measures has stalled and risks going into reverse. Data from the Global Burden of Disease Study for England shows that there has been little or no improvement since 1990 in how long people live with illness and disease (morbidity) ([Public Health England 2016](#)). On many measures of health outcomes, the UK is no more than average.

Improvements in life expectancy have ground to a halt and in some parts of the UK it has been falling ([Office for National Statistics 2018c](#)). This drop in the growth rate of population life expectancy is spread across age groups, but is mostly seen in older people (Raleigh 2018). Severe mental ill health continues to reduce life expectancy by 10 to 20 years – equivalent to or worse than reductions caused by heavy smoking but without the same level of policy priority given to smoking ([Chesney et al 2014](#)).

After 100 years of continuous improvement, infant mortality has begun to rise and lags significantly behind comparable countries. Our obesity rates are among the worst in Western Europe ([Organisation for Economic Co-operation and Development 2017](#)). And despite universal health care that is free at the point of use, health inequalities in England are widening.



The NHS remains, at heart, a treatment service for when people become ill. There is a greater recognition of the importance of wider determinants of health, of communities as assets as well as collections of needs, and much rhetoric about the need for a ‘radical upgrade in prevention’ (NHS England *et al* 2014, p 3) or to ‘improve the health of the poorest, fastest’ (HM Government 2010, p 4). We lack a comprehensive approach to keeping us well – although encouragingly, the government has now committed to publishing a Green Paper on prevention in 2019. Stronger political leadership – both nationally and locally – is essential.

This report sets out an overarching vision for improving population health, with recommendations for action. There are four key steps that are needed to accelerate progress and realise the vision:

- setting out the case
- articulating a vision
- developing a framework for population health to help conceptualise, operationalise and prioritise what will deliver the vision
- supporting changes to help a population health system to develop.

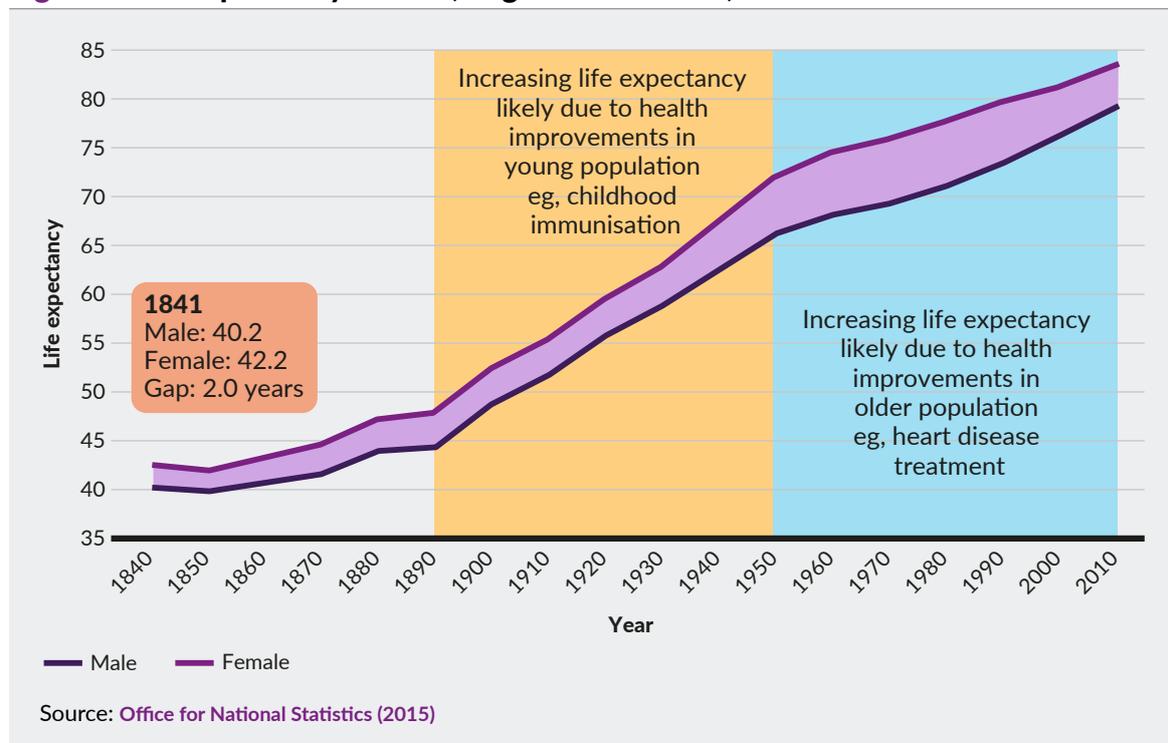
In this report we draw on the work of The King’s Fund and many others in seeking to follow these steps.



2 Setting out the case: the population's health and the challenges ahead

We are healthier now as a country than we have ever been judged by life expectancy (Figure 1). This 'great escape' was driven initially by massive reductions in childhood mortality associated with improvements in sanitation and nutrition. Public health interventions such as immunisation and vaccination contributed subsequently.

Figure 1 Life expectancy at birth, England and Wales, 1841–2011





Since around 1950, many factors have played a part including:

- the introduction of free health care for all through the NHS together with developments in treatment (for example for heart disease)
- policies to reduce smoking
- increases in living standards brought about by post-war economic growth
- improvements in housing and economic security associated with the welfare state (Timmins 2017).

Yet despite progress as a society we face persistent and growing challenges.

The King's Fund, the Nuffield Trust, The Health Foundation and the Institute for Fiscal Studies carried out a joint assessment of the NHS for its 70th anniversary, which showed that it compares very well with health systems in other countries on some measures (Dayan *et al* 2018). For example, it protects people from heavy financial costs when they are ill, it is efficient (in terms of low administration costs, cheaper generic medicines and overall costs) and it performs well in managing some long-term illnesses. But this assessment and others, such as the Global Burden of Disease Study (Public Health England 2016), have shown that as a society we are distinctly average in how healthy we are across a wide range of health conditions compared with similar countries (Figure 2).

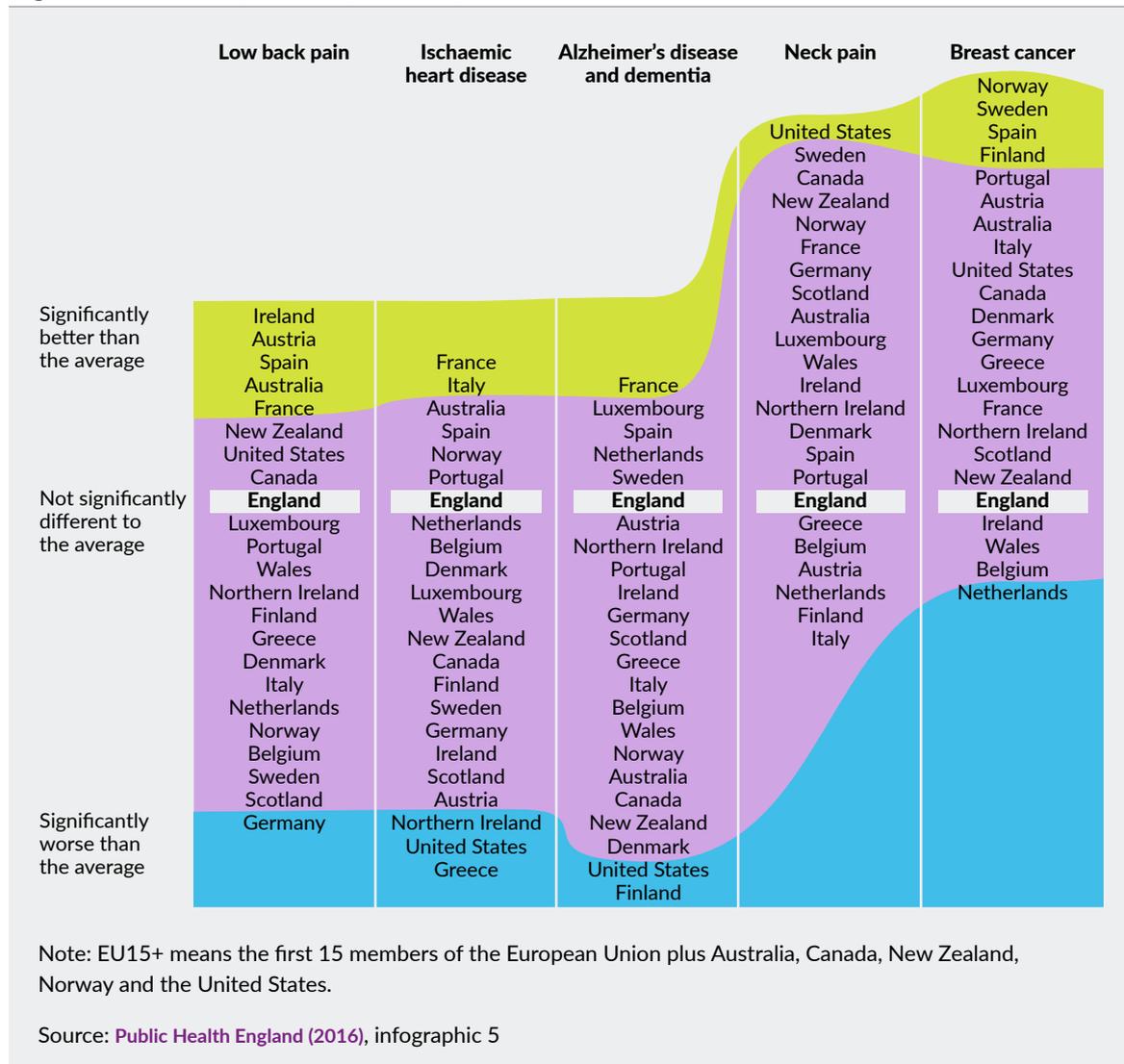
We are also seeing a continuing and important shift in the burden of disease, from mortality to morbidity. As long ago as 2003 the 'years of life lost to disability' (defined as having one or more chronic condition or long-term illness) surpassed the 'years of life lost' (premature mortality) in England (Steel *et al* 2018). As the most recent Health Profile for England sets out (Public Health England 2018a), the biggest health burdens in our population now are deterioration or injuries in the musculoskeletal system (such as back pain and arthritis) and mental ill health.

Much of the burden, be that morbidity or mortality, is preventable. For example, two-thirds of the improvements to date in premature mortality are related to reductions in smoking rates, cholesterol and blood pressure, and a third due to 'treatment' (Capewell and O'Flaherty 2011). As Steel *et al* (2018) argue, 'Health services need to recognise that prevention is a core activity rather than an optional extra to be undertaken if resources allow.'



Government has a huge role in preventing ill health and keeping us well. While the NHS has a key role to play in encouraging people not to smoke, and local authorities even more so, government interventions such as taxes, advertising restrictions and the ban on smoking in public places, also have a significant and essential impact. Government action needs to have a stronger focus on social policies and place-shaping, helping us to lead healthier lives, not just longer ones.

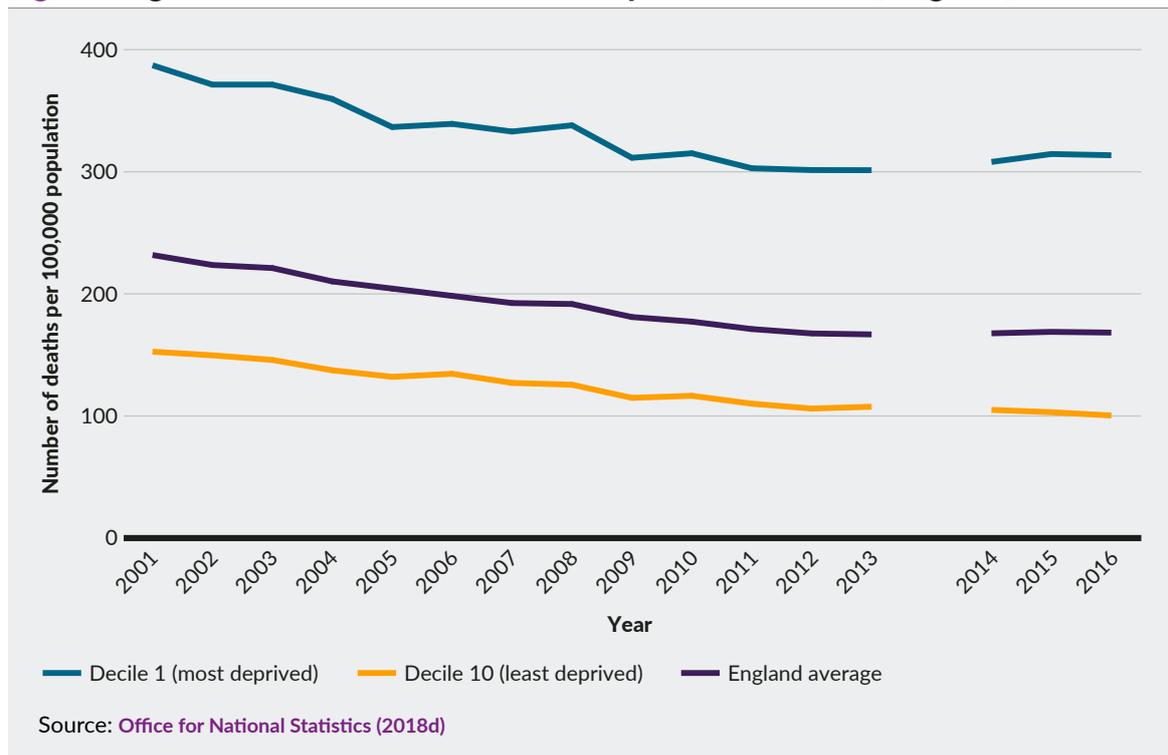
Figure 2 Rank of countries in EU15+, by disability-adjusted life years (DALYs) (age-standardised), 2013 (females)





Our mediocre standing masks the way in which our society continues to suffer from significant inequalities in health, on virtually every measure, despite seminal reports including the Marmot, Acheson and Black reports (Marmot *et al* 2010; Acheson 1998; Department of Health and Social Security 1980). As Figure 3 illustrates, the latest data from the Office for National Statistics (ONS) shows that, after a period when the gap between the most and least deprived areas narrowed, rates for age-standardised ‘avoidable’ mortality (which we know is amenable to the actions of the health care system and wider prevention measures) stabilised and have started to widen in more recent years for females (Figure 3) and males.

Figure 3 Age-standardised avoidable mortality rates for females, England, 2001–16



ONS analysis also shows that between 2014 and 2016 males born in the least-deprived areas could expect to live almost a decade longer than those in the most deprived areas (9.3 years), while for females the gap was 7.4 years. The gap is even wider for healthy life expectancy (the proportion of life spent in good health): the most-deprived males spend 18.5 years of their lives less healthy than the least deprived; for females it is longer still, at 18.9 years. People living in the most



deprived areas spend almost double the proportion of their shorter lives in poor health, compared with the least deprived.

This is the double jeopardy of inequalities in health – far shorter lives spent in far poorer health ([Office for National Statistics 2018b](#)). Inequality is not just experienced between rich and poor areas of England – it is experienced within those areas, too. For example, Westminster’s 2018 local health profile shows that life expectancy is 12.5 years lower for men and 7.5 years lower for women in the most-deprived neighbourhoods compared with those in the least-deprived ones ([Public Health England 2018b](#)).

The clustering of different forms of deprivation in the same communities is a significant cause of these differences. We carried out a detailed analysis of life expectancy in 6,700 English communities between 2006 and 2010 and estimated the impact of the following forms of deprivation which tended to cluster together:

- every 10 per cent increase in the proportion of older people in an area claiming pension credit was associated with a reduction in life expectancy of six months
- every 10 per cent increase in involuntary unemployment was associated with a reduction in life expectancy of a year
- every 10 per cent increase in an area where housing was deemed unfit was associated with a two-month reduction in life expectancy
- every 10 per cent increase in the frequency of binge drinking in an area (for males having consumed eight or more units on the heaviest drinking day in the last week, for females six unit or more) was associated with four months lower life expectancy ([Buck and Maguire 2015](#)).

A recent analysis shows a worrying sharp relative rise in deaths in younger people from cardiovascular disease, alcohol and drug misuse in the north compared with the south of England ([Kontopantelis et al 2018](#)). The authors suggest that this may be linked to increasing psychological distress, despair and risk-taking among young and middle-aged adults, particularly outside London.

There is now overdue recognition of how important mental health is to overall health. People with mental health problems often have worse physical health that is

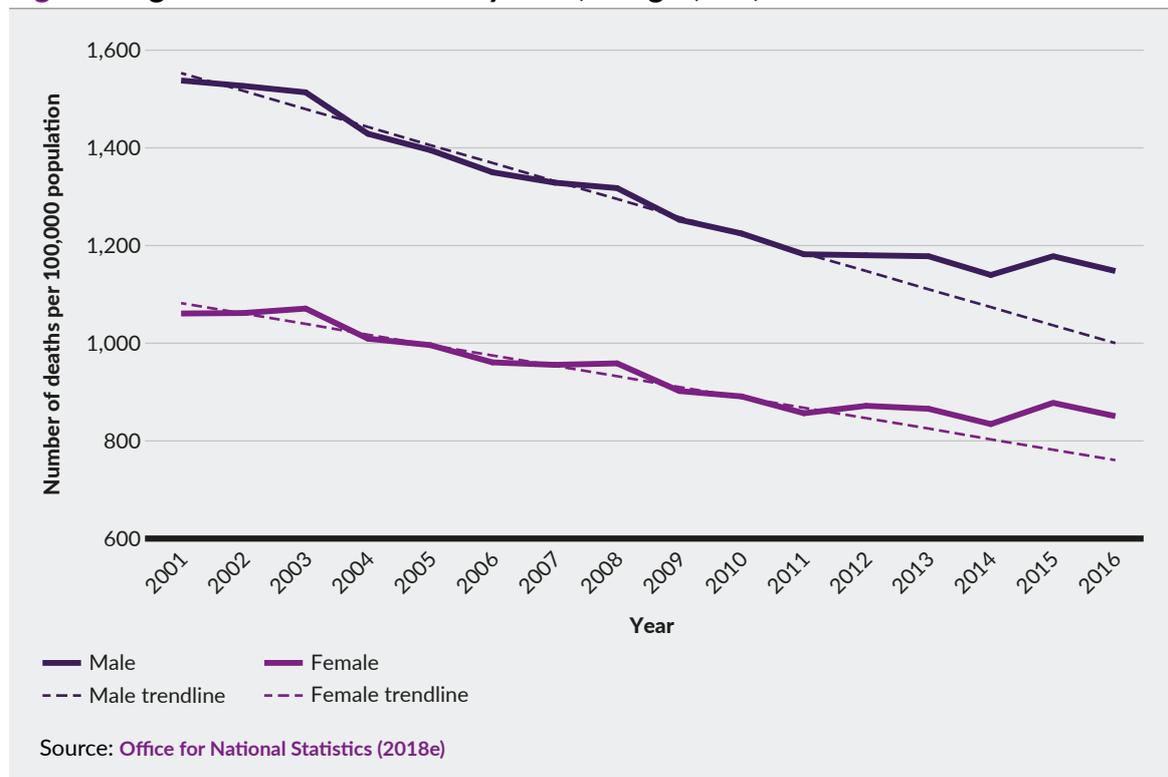


not adequately prevented or treated ([Centre for Mental Health undated](#)). For some people, including young women, mental health has been getting worse ([NHS Digital 2016](#)). We welcome the fact that policy-makers are paying more attention to mental health, including public mental health (see, for example, [Public Health England 2017b](#)), but parity of esteem with other health services has not yet been achieved.

Along with musculoskeletal problems, mental health issues are the leading cause of morbidity in the population and need to be given higher priority. Many problems start in childhood, which is why the Mental Health Policy Commission has made policy recommendations for strengthening the resilience of young people ([Burstow et al 2018](#)). If we do not act more coherently, we will be in danger of slipping further behind our international peers, as the Royal College of Paediatrics and Child Health has recently warned ([Royal College of Paediatrics and Child Health 2018](#)).

Last, but by no means least, since around 2010, improvements in life expectancy and in mortality rates have started to slow down (Figure 4) and as noted in section 1, in some parts of the UK, life expectancy has fallen. The reasons for this

Figure 4 Age-standardised mortality rates, all ages, UK, 2001–16





are complex and other countries have also been affected, but the UK and the US have seen the greatest slowdown in life expectancy at birth ([Office for National Statistics 2018a](#)).

These issues cannot be addressed through the health and care system alone, although the system needs to play a fuller part than it does now. To tackle them we need to act across society, across all the levers and drivers of our health as a population, in the spirit of the ‘Health 2020’ strategy of the World Health Organization’s Regional Office for Europe, to which the UK is a signatory ([World Health Organization 2018a](#)). This is why we need a new vision for population health, and a framework and actions to achieve it.

The scope of population health: beyond the NHS and integrated care

The first task in addressing these challenges is to understand what drives our health. Dahlgren and Whitehead’s (1993) well-known framework (Figure 5) remains helpful in showing how our physiological characteristics, health behaviours and lifestyles

Figure 5 What affects our health?



Source: Dahlgren and Whitehead (1993), cited in [The King’s Fund \(2013\)](#)



affect our health. It also shows that our health is influenced directly and indirectly (particularly in terms of our health behaviours) by our social and community networks and the physical, social and economic contexts in which we live. Some of these we have elements of choice over; others we don't.

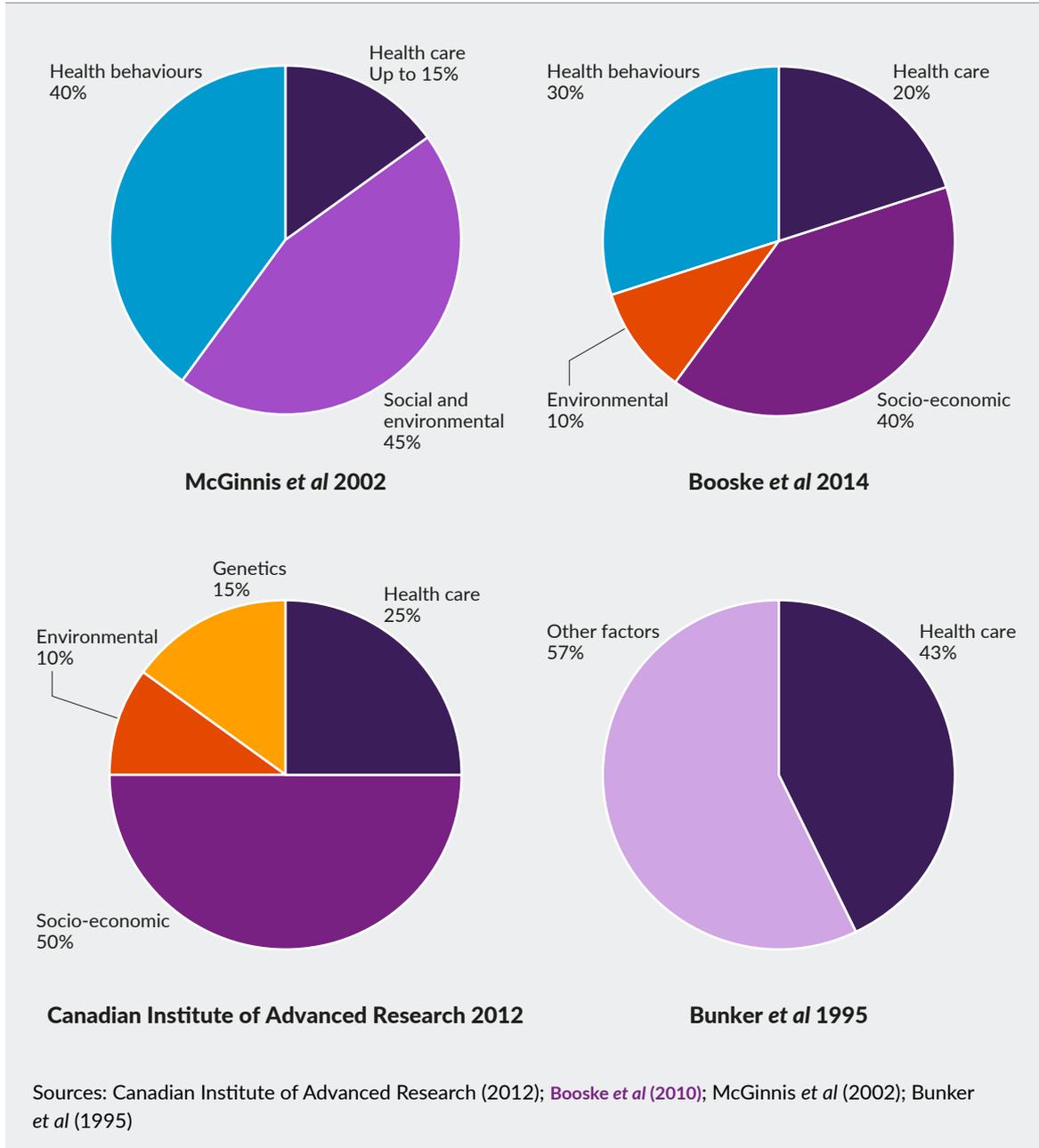
Just how much each of these factors contributes to our health is hard to measure precisely due to the different methods, data and time periods of different studies, and because it is innately difficult to disentangle empirically what may be clear conceptually.

Figure 6 shows the high-level results of various studies on the contribution of determinants of health (see [McGovern et al 2014](#) for a more detailed review). The estimates shown in the figure are less important than the overall message that socio-economic and environmental determinants of health (in general, those in the outer rings of Figure 5) taken together are the prime drivers of our health, followed by our health behaviours (for example, whether and how much we smoke and/or drink alcohol, what we eat and how physically active we are), health care, and finally genetic and physiological factors. To improve population health, we have to focus as much on those factors that lie outside the health and care system as those within it.

We need to ask more of the NHS than we currently do. Bunker *et al's* (1995) study, in contrast to the other studies included in Figure 6, was based on what was possible through health care if we implemented all that was known to be effective for all those who required it. This is important, because often studies can be used as an excuse for why it is 'too difficult' to tackle population health or health inequalities through the health care system (see [Bentley 2008](#) for more on this).

Equally, we need to recognise the impact of government policies on population health – not just health policies. For example, socio-economic factors are estimated to account for around half of health outcomes. Poverty rates in low- to middle-income families have increased by a third since the mid-1990s ([Corlett et al 2018](#)). Tax and benefits policies are projected to reduce the incomes of the poorest households by 10 per cent between 2015 and 2020 compared to a small rise for the wealthiest half of the population and a fall of 1 per cent for the wealthiest 10 per cent ([Waters 2017](#)).

Figure 6 The relative contribution of major determinants to our health





Early evidence about universal credit – the ‘safety net’ benefit to safeguard against poverty – shows that it is associated with significant growth in foodbank use ([National Audit Office 2018b](#)). Two implications of these wider policies are that:

- it is indefensible if government policies do not take account of their impact on population health
- impacts may be indirect or unintended and there is a need to assess them systematically across the full range of government policy.

Population health, public health or population health management?

The box below sets out more clearly what we mean by ‘population health’. We recognise that there is no single accepted definition, and that there are several other terms that are often used in the context of discussing population health and which overlap (see, for example, Hunter *et al* 2010; [World Health Organization 2001](#)).

We see ‘population health’ as the broadest overarching concept, encompassing what is currently defined as the ‘public health system’ in England, and ‘population health management’ as a specific tool. Our definition of population health is an unpacking of Acheson’s (1998) definition of the purpose of public health, ‘the science and art of promoting and protecting health and wellbeing, preventing ill-health and prolonging life through the organised efforts of society’. It also encompasses the notion of differences, or inequalities, between groups, namely ‘the health outcomes of a group of individuals, including the distribution of such outcomes within the group’ ([Kindig and Stoddart 2003](#), p 380).

We use the term population health to distinguish it clearly from the profession and discipline of ‘public health’, which, although important in the pursuit of population health, should not be seen as synonymous with it, or the only profession that can or should be responsible for pursuing it.



Population health, public health and population health management

Population health (and system) is an approach aimed at improving the health of an entire population. It is about improving the physical and mental health outcomes and wellbeing of people within and across a defined local, regional or national population, while reducing health inequalities. It includes action to reduce the occurrence of ill health, action to deliver appropriate health and care services and action on the wider determinants of health. It requires working with communities and partner agencies. How all these contributions connect and work together defines a **population health system**.

Public health (and system) was originally associated with the battle against infectious diseases, brought about through improvements in sanitation and the quality of water and air in the 19th and early 20th centuries. More recently, the **public health system** has most often been thought of as the functions of local government that relate to supporting people to live healthily (such as smoking cessation, weight loss support and sexual health services) as well as some elements of what the NHS delivers (such as immunisation and vaccination against preventable diseases). The **public health profession** is trained to plan, design and deliver preventive policies and interventions. Each English local authority has a public health director and team.

Population health management is one of many tools for using data to guide the planning and delivery of care to achieve maximum impact on population health. It often includes segmentation and stratification techniques to identify groups of patients (and sometimes wider population groups) at risk of ill health and to focus on interventions which can prevent that ill health or equip them to manage it. Integrated care systems (ICSs) here and abroad often use population health management in this sense when deciding how best to allocate resources to different groups of patients (Noble *et al* 2014).

As a concept, population health is not new, and many parts of the framework for a future population health system that we set out in this report are in place. Our contention is that they are neither well-balanced – health policy continues to be too focused on treatment rather than ensuring action to address what really drives our health – nor are they working systematically and coherently together.



3 Our vision for population health and national goals

Our vision

Put simply, our vision is:

Health outcomes and inequalities in health in England will be on a par with the best in the world. This will be achieved by a consistent and coherent focus on population health locally, regionally and nationally.

Achieving this vision will require the marshalling, systematically and at scale, of all the forces that contribute to the population's health. That will rely on the contribution of the NHS, social care and local and national public health bodies, but will also go far beyond them.

It will need to call on the skills and knowledge associated with the public health profession, but the wider workforce also has an important part to play. And it will need to recognise the contribution and responsibilities of local and national government, and the ability of places – neighbourhoods, towns and cities – to shape our health. To know whether we are achieving the vision, it will also require measurement against national, regional and local goals.

High-level goals

In recent years, health policy has prioritised efforts to make the health and social care system work better and to manage increasing demand within a finite budget. For example, responsibilities for commissioning and other functions were reorganised, new models of better integrated care were introduced and the regulation of the quality of services strengthened.

These are all important issues, but there has been too little focus from government and system leaders on the state of the population's health itself, what drives and



shapes it, and what that means for the role of the government and the rest of society. One of the reasons for this is the absence of binding high-level goals for the nation's health, as opposed to the performance, organisation and funding of the health and care system.

This has not always been the case. In the past, governments have issued a set of overarching and specific health goals, for example through the *Health of the nation* strategy (Department of Health 1992), or public service agreements and associated targets (HM Government 2000), which included targets for health inequalities (Department of Health 2009). Currently, where targets exist they focus on particular challenges such as childhood obesity, and there is no overarching set of goals for the health of the population as a whole.

A small set of clear, time-limited, binding high-level national goals for population health is required, especially as population health cannot be represented by a single indicator. These goals need to be challenging but chosen on the basis of where action can have a direct impact and national leadership can support action regionally and locally, with adequate resources, to help achieve them. They should focus on the difference it could make for population health and shift the public debate about health away from only focusing on waiting times and access targets.

The goals should cover a range of population groups (eg, children and young people as well as the population as a whole), particular risk factors and wider determinants of health that are amenable to preventive interventions, and mental health and wellbeing as well as physical health. They should make clear that neither the NHS, nor local authorities or Public Health England can achieve them on their own: a broad collaboration is necessary. Crucially, the goals should have a strong focus on inequalities. They should also reflect that there is a shared responsibility for health as we argue in a new report (Ham *et al* 2018).

In appendix 1 we put forward a set of goals that **could be** chosen, with our reasoning as to why they are important to population health and inequality reduction, with suggested time limits.

The government has shown that it is 'in the market' for such goals, and we welcome its commitment to 'ensure that people can enjoy at least five extra healthy, independent years of life by 2035, while narrowing the gap between the experience



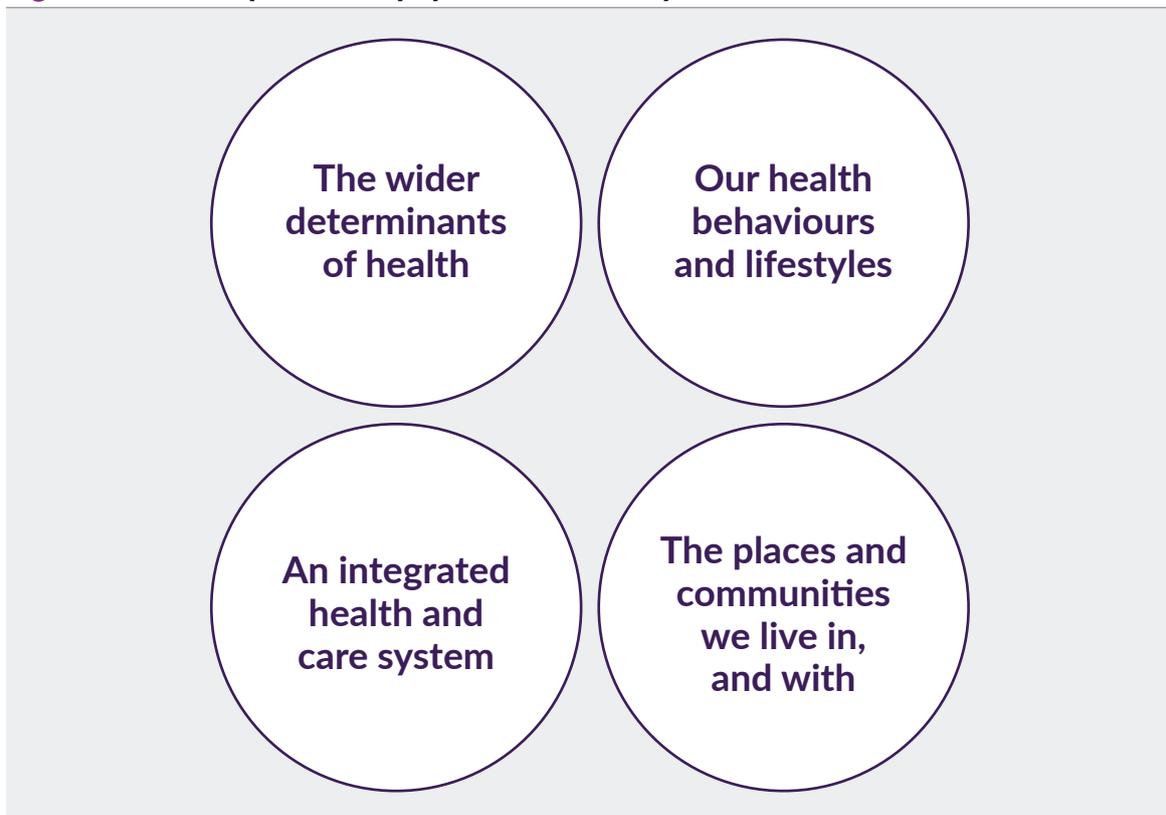
of the richest and poorest' as part of its industrial strategy's 'grand challenges' (**Department for Business, Energy & Industrial Strategy 2018**). Its commitment to prevention was confirmed in *Prevention is better than cure*, which signposts further policy development on prevention in 2019 and beyond (**Department of Health and Social Care 2018**).

The rest of this report develops a framework for reaching a set of population health goals, and in describing it further sets out the case for priority being given to a 'population health system'.

4 Towards our vision for population health: the four pillars of our framework

Population health needs to be rooted in what drives our health, and what can improve and maintain it over time. Given this, and given the evidence discussed in the previous sections, it should be no surprise that the four ‘pillars’ we see as crucial to this are the wider determinants of health, our health behaviours and lifestyles, an integrated health and care system, and the places and communities we live in and with (Figure 7). A comprehensive approach to population health must be able to work across all four pillars.

Figure 7 The four pillars of a population health system





The wider determinants of health

In section 2 we set out the evidence that the wider determinants of health are the most important driver of whether we are healthy or not. Of course, our levels of wealth and personal and family income help to determine our health at the individual and community level (Benzeval *et al* 2014). Beyond this, many other factors such as housing, transport and leisure also make a big contribution. Regulatory controls and decision-making relating to these factors are in the hands of local government rather than the NHS locally, and departments other than the Department of Health and Social Care nationally.

Below we set out some of the impacts related to the major determinants of health in more detail (Table 1). These are partial and focus only on specific examples within sectors; the overall impacts across sectors as set out in Figure 6 above show that in total they outweigh the contribution of other factors such as health care.

Table 1 Selected impacts of wider determinants on health and public services

Sector	Examples
Income	<ul style="list-style-type: none"> Evidence shows that income plays three roles in determining health: managing on a low income is stressful, which has physiological impacts on the body and its regulatory systems; a low income is related to unhealthier behaviours (emerging neuroscience suggests that this is due to changes in how people make decisions); and income gives us the ability to buy health-improving goods (from food to exercise equipment). Poor health can also lead to a low income (reverse causation). For example, it can prevent people from taking paid employment, while poor childhood health can affect educational outcomes and therefore future earnings. Poorer children have worse cognitive, social-behavioural and health outcomes independent of other factors that have been found to be correlated with child poverty (for example, household and parental characteristics). Children growing up in disadvantaged circumstances have a higher risk of death in adulthood across almost all conditions that have been studied, including mortality as a result of stomach cancer, lung cancer, haemorrhagic stroke, coronary heart disease, respiratory-related problems, accidents and alcohol-related causes. <p>Source: Wickham <i>et al</i> (2016), Benzeval <i>et al</i> (2014) and Mullainathan and Shafr (2013)</p>

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Table 1 Selected impacts of wider determinants on health and public services
continued

Sector	Examples
Housing	<ul style="list-style-type: none"> • There are more than 2 million visits to accident and emergency (A&E) departments every year by children following an accident in or around the home. • Death rates rise 2.8% for every Celsius-degree drop in the external temperature for those in the coldest 10% of homes, compared with 0.9% in the warmest homes. <p>Source: Greenfield and Marsh (2018), Buck (2018b), National Institute for Health and Care Excellence (2015)</p>
Environment	<ul style="list-style-type: none"> • In the UK, air pollution is estimated to contribute to the early deaths of around 40,000 people a year. • Areas with more accessible green space are associated with better mental and physical health among the local population and with reducing the impact of income inequalities on health. <p>Source: Royal College of Physicians and Royal College of Paediatrics and Child Health (2016), Wentworth and Clarke (2016)</p>
Transport	<ul style="list-style-type: none"> • Each year, traffic accidents cause around 250,000 casualties and kill almost 3,000 people. Those living in the most-deprived areas have a 50% greater risk of dying from a road accident compared with those in the least-deprived areas. • Cycling to work reduces the relative risk of mortality by almost 40% through reducing the risk of cardiovascular disease and obesity and improving general health, and results in lower absenteeism. <p>Source: Burgess (2013), Hendriksen <i>et al</i> (2010), Power <i>et al</i> (2010)</p>
Education	<ul style="list-style-type: none"> • Four more years of education reduces mortality rates by 16% – equivalent to the life-expectancy gap between men and women – and reduces the risk of heart disease and diabetes. • Those with less education report being in poorer health. They are more likely to smoke, to be obese and to suffer alcohol-related harm. <p>Source: Cutler and Lleras-Muney (2006)</p>
Work	<ul style="list-style-type: none"> • Being unemployed is bad for people's health, leading to a higher rate of mortality (including from cardiovascular disease, lung cancer and suicide) and risk factors such as hypertension. It is also linked to poorer mental health and psychological wellbeing and a higher use of health care resources. • Good-quality work is good for people's health through income and wider personal and social benefits. Meanwhile, 'poor-quality' work (for example, work that involves adverse physical conditions, exposure to hazards, a lack of control and unwanted insecurity) is bad for people's health. <p>Source: Public Health England and Institute of Health Equity (2015), Buck and Gregory (2013), Waddell and Burton (2006)</p>



The tables below summarise our review of a broad range of evidence on the wider determinants of health outcomes (Table 2) and on how they inter-relate (Table 3) (Buck and Gregory 2013).

Table 2 Direct impacts of actions on health outcomes

Area	Scale of problem in relation to public health	Strength of evidence of actions	Impact on health	Speed of impact on health	Contribution to reducing inequalities
Best start in life	Highest	Highest	Highest	Longest	Highest
Healthy schools and pupils	Highest	Highest	Highest	Longer	Highest
Jobs and work	Highest	Highest	Highest	Quicker	Highest
Active and safe travel	High	High	High	Quicker	Lower
Warmer and safer homes	Highest	Highest	High	Longer	High
Access to green spaces and leisure services	High	Highest	High	Longer	Highest
Strong communities, wellbeing and resilience	Highest	High	Highest	Longer	High
Public protection	High	High	High	Quicker	High
Health and spatial planning	Highest	High	Highest	Longest	Highest

Source: Buck and Gregory (2013)



Table 3 Indirect impacts of actions on health outcomes

Impact from...	Impact on...							
	Best start in life	Healthy schools and pupils	Jobs and work	Active and safe travel	Warmer and safer homes	Access to green spaces and leisure services	Strong communities, wellbeing and resilience	Public protection
Best start in life		Highest	Highest	Lower	Lower	Lower	Higher	Lower
Healthy schools and pupils	Lower		Highest	Lower	Lower	Lower	Higher	Lower
Jobs and work	Higher	Higher		Lower	Higher	Lower	Higher	Lower
Active and safe travel	Lower	Lower	Lower		Lower	Higher	Lower	Higher
Warmer and safer homes	Higher	Lower	Higher	Lower		Lower	Higher	Lower
Access to green spaces and leisure services	Lower	Lower	Lower	Highest	Lower		Higher	Higher
Strong communities, wellbeing and resilience	Lower	Lower	Higher	Lower	Lower	Lower		Lower
Public protection	Lower	Lower	Higher	Lower	Higher	Lower	Lower	
Health and spatial planning*	Lower	Lower	Higher	Highest	Highest	Highest	Highest	Highest

* NB: Spatial planning is not represented as an area that is affected by the others, since it 'sits outside' those areas; its crucial impact is in terms of how objectives of activities in the other areas are planned and delivered through spatial planning.

Source: [Buck and Gregory \(2013\)](#)



We developed these two tables as a starting point for local discussions about priorities for health. Lower 'scores' do not reflect that the areas of action are 'poor performers' – the evidence shows that all areas listed in the tables are strong candidates for action to improve population health. But they do show how action in one area can magnify the effects on health through having an impact on action in another area.

Taking the early years ('best start in life') as an example, the evidence highlighted here suggests that interventions in this area can have significant impacts in terms of improving population health and reducing inequalities, but they will require specific investment and may take time to deliver results (Table 2). Much of the impact on health will be longer term, through improving people's subsequent access to education and employment (Table 3).

It is worth noting that among areas with similar characteristics including deprivation patterns, some have much better health than others (Buck and Maguire 2015, Steel *et al* 2018). The reasons for this are complex but it shows that the association between deprivation and poor health is not inevitable. The leadership of population health improvement, aligned with the broader leadership of local authorities' roles in place-shaping and social and economic development, is an important factor in those areas that manage to do better than their peers. We discuss system leadership further in section 6.

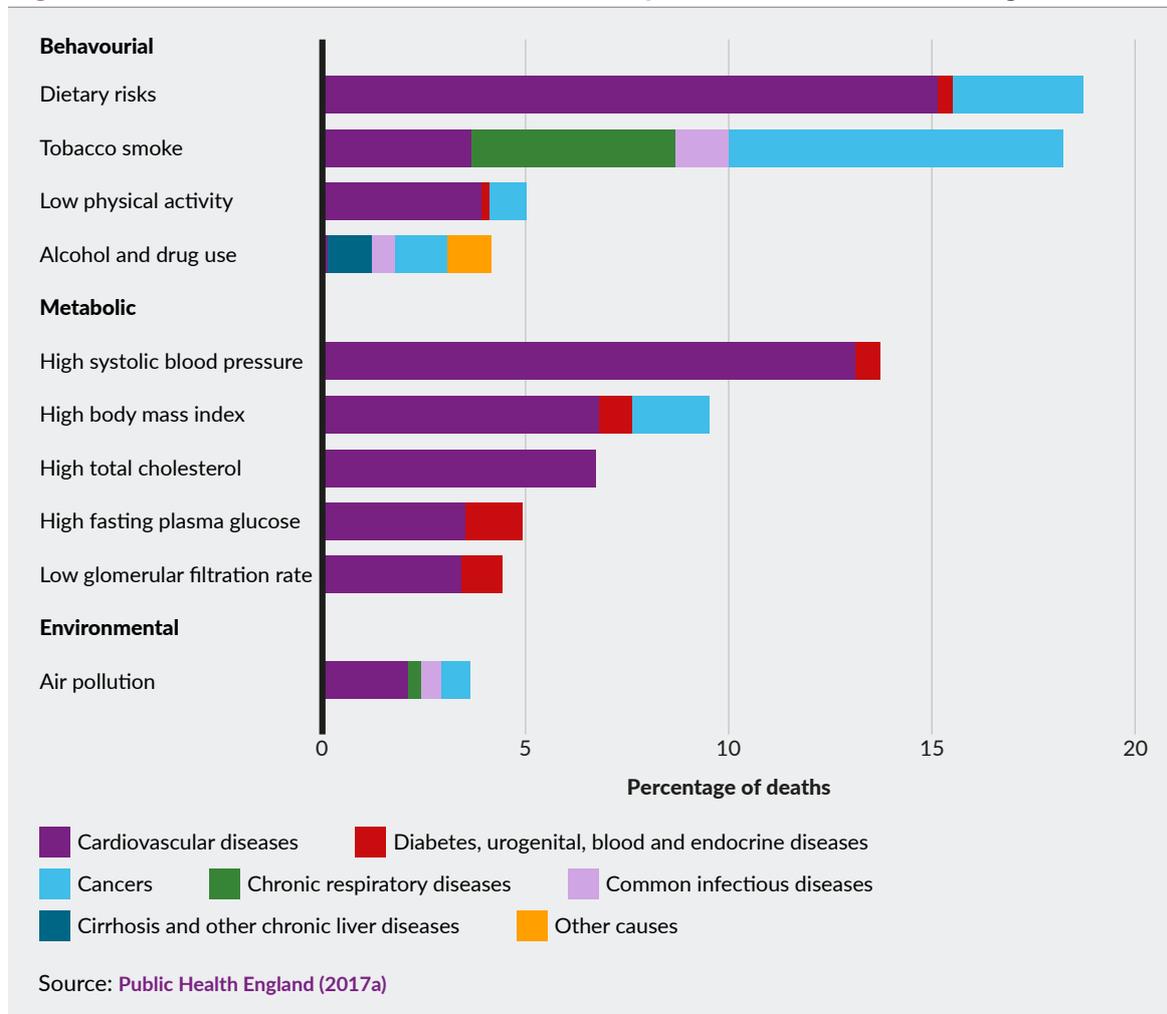
Our health behaviours and lifestyles

The Health Profile for England 2017 (Public Health England 2017a) summarises how behaviours and lifestyles affect mortality. It breaks down risks to health into behavioural risk factors (such as smoking, drinking too much alcohol and unsafe sex), metabolic risk factors (such as high body mass index – BMI – and high cholesterol) and environmental risk factors (such as air pollution).

The behavioural risk factors estimated to account for the highest proportion of deaths in England in 2013 were diet and tobacco smoke, which contributed close to 40 per cent of deaths between them (Figure 8). But patterns are different at different ages. For example, the main cause of death in younger adults was alcohol.



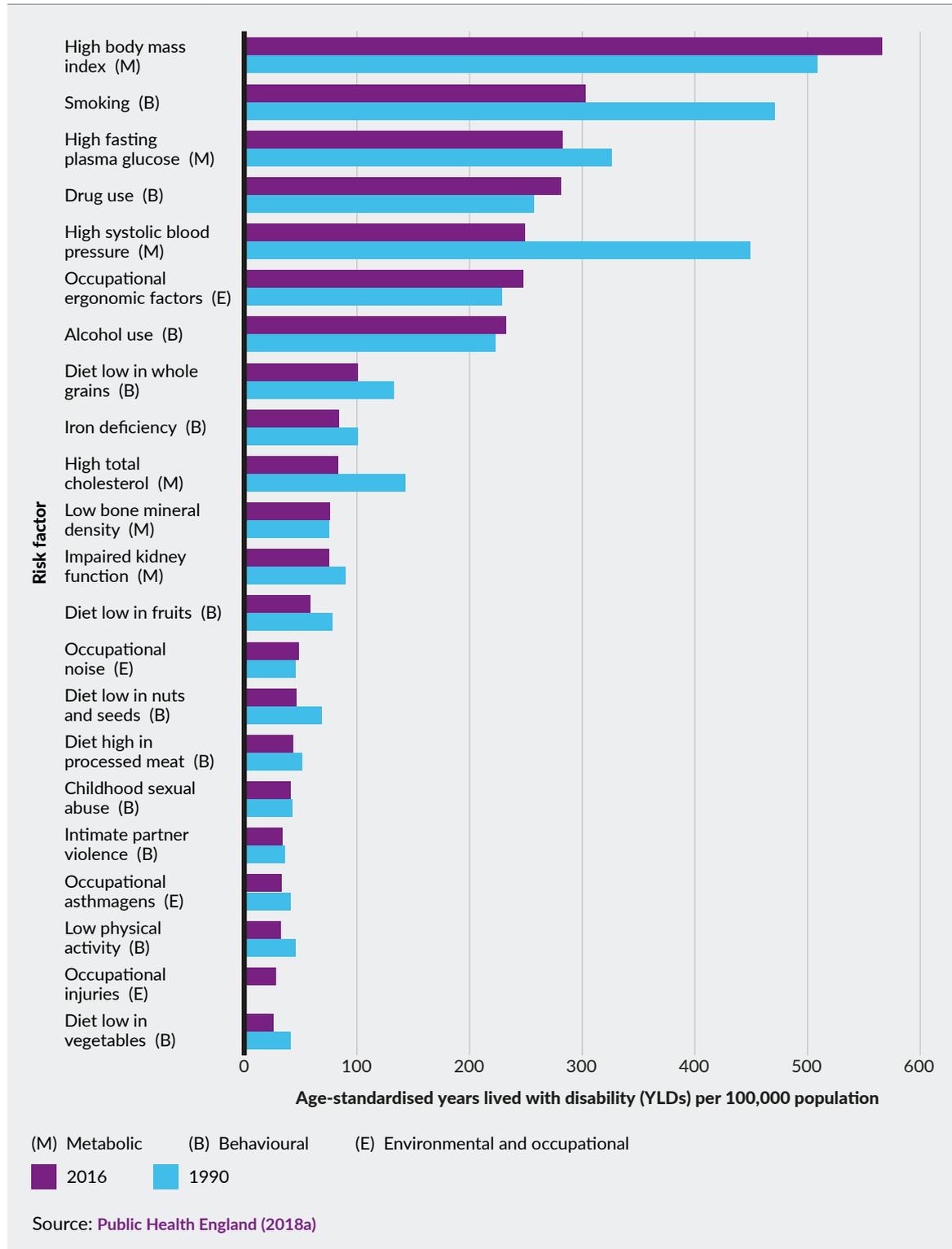
Figure 8 Attribution of deaths to risk factors, by broad cause of death, England, 2013



The Health Profile for England 2018 (Public Health England 2018a) reports on the top 20 risk factors associated with morbidity (as measured by years of life lost) in England in 2016 and how they have changed over time (Figure 9). High BMI, smoking and high fasting plasma glucose remain the leading causes in 2016 as they were in 1990. These are associated with many of the most common physical causes of morbidity, including cardiovascular disease, musculoskeletal conditions, respiratory disease, diabetes and most cancers.



Figure 9 Morbidity rate attributed to risk factors, England, 1990 and 2016





The good news is that tobacco's contribution has declined in absolute terms due to a fall in smoking rates; the bad news is that the morbidity burden of BMI has increased due to increases in obesity rates ([Government Office for Science and Department of Health 2007](#)). Obesity rates have increased because of individual factors such as psychology, food consumption, physical activity and biology, but also societal influences including changes in the range, marketing, price and accessibility of energy-dense foods, which make it 'harder to avoid' obesity. The government has started to respond to this complexity with a stronger societal approach, not relying solely on providing more information for individuals ([Buck 2018b](#)), although much remains to be done ([Murray 2018a](#)).

As Public Health England states:

... the presence of these leading risk factors in the population continues to pose a challenge to the health of the nation. While there have been some decreases in prevalence of risk factors, notably in tobacco smoking, there has been little change in other risk factors such as excess weight, physical inactivity and diagnosed hypertension. Recent estimates suggest that almost two out of three adults in England are either overweight or obese.

([Public Health England 2017a](#))

An integrated health and care system

The King's Fund has been at the forefront of arguing for and supporting the development of a more integrated health and care system ([Ham and Curry 2010](#); [Ham 2018](#); [The King's Fund undated](#)).

This reflects the increasing complexity of people's health experience and the need to make this complex system work better for patients traversing the boundaries between multiple service providers, for example as they are seen by a GP, referred to hospital, discharged to reablement and then to home care. In the past 10 years alone there has been a doubling of the number of hospital inpatients with a chronic condition and around a 60 per cent increase in those with multiple chronic conditions ('multi-morbidity') ([Johnson et al 2018](#)). This increases the need to integrate services so that they are designed around individuals' needs, rather than around separate organisations.



Multi-morbidity does not affect all population groups equally: people living in deprived areas are more likely to have multiple long-term conditions than people in the least-deprived areas, and the onset of multi-morbidity is around 10 to 15 years earlier (Barnett *et al* 2012). The statutory duties to promote integrated care in the Health and Social Care Act 2012 created twin requirements to improve quality of care and to reduce inequalities in health. The second of these must not be forgotten: it is a core purpose of integrating services.

Despite some progress, health and social care systems in England remain poorly designed to support people with multiple conditions, as The King's Fund (Ham *et al* 2012) and many others including the Richmond Group of Charities have argued (Aiden 2018). Those with multi-morbidity are in contact with multiple health professionals, and are more likely than those with a single condition to report care co-ordination problems and suffer problems in transitions of care due to poor communication and data flows. This disrupts their wider lives and compounds the impact on their wellbeing.

The worst year I had for appointments – 52 weeks in a year and I had 68 appointments. Different departments, different check-ups. That was doctors, GP, hospital, diabetes check, eye checks and everything else. I had to give up work because of it.

Lynda, 61, Brixton (Guy's and St Thomas' Charity 2018, p 35)

A significant minority of what lies behind the use of primary care services in particular is linked to social not medical need, as Citizens Advice has documented (Citizens Advice 2015), which is why integration needs to focus on social models of health as well as medical ones (Alderwick *et al* 2015).

The places and communities we live in, and with

There is now a greater recognition of the importance of 'place' and that the communities in which we live shape our health (Ham and Alderwick 2015). National and local policy that affects the health of the population, and the delivery of NHS, social care and other health impacting public services (such as housing and local planning decisions), all 'happen' in neighbourhoods, towns and cities. Furthermore, those around us, and our environments (for example, the accessibility of fast food,



the quality of ambient air or how much advertising for alcohol we are exposed to), influence our health behaviours. Decisions at this level therefore have an impact on our health – one reason why local authorities and the roles they have (beyond their specific public health budgets) are so important. Furthermore, the move to more devolution of decision-making and resources from Westminster to local areas has huge potential for population health.

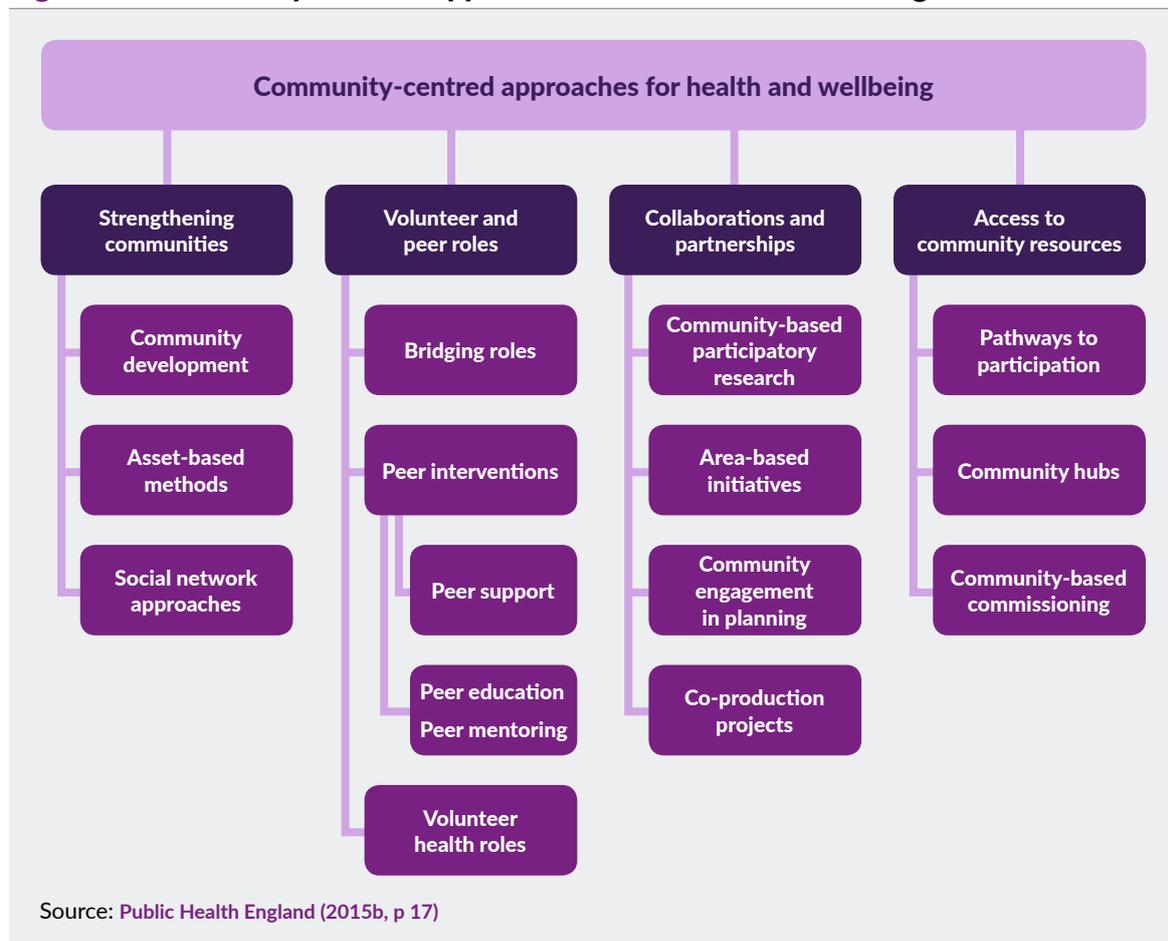
Whatever place we happen to live in, the communities we belong to support and nurture our health. The evidence is stacking up that social relationships, norms and community networks – or the absence of them – have an impact on our health and wellbeing and on our resilience ([South et al 2018](#)). Good social relationships and support are protective of health, being associated with a reduced risk of premature mortality post-retirement ([Steffens et al 2016](#)). In size, the effect has been estimated to be comparable to the impact of stopping smoking on the risk of mortality ([Holt-Lunstad et al 2010](#)). These factors have also been shown to have an impact on the development of and recovery from specific health problems such as heart disease ([Kim et al 2014](#)) and on wider wellbeing – participation in ‘community assets’ (for example, membership of community, resident, religious or other voluntary groups) is associated with a substantially higher quality of life ([Munford et al 2017](#)).

The role of communities in supporting good mental health is critical, from help during a crisis through to wider public mental health support across the whole population and for at-risk groups, such as young girls and their risk of self-harm ([The Children's Society 2018](#)). We know that our place in social hierarchies and the wider role of communities (both negative and positive) are an important factor in the psychosocial pathways to mental health and wellbeing ([Public Health England 2017c](#)). Studies in the UK and elsewhere have shown that inequalities in mental health and wellbeing are driven more by material and psychosocial factors than by behavioural factors (see [Scottish Government 2005](#) for an overview) and community-level psychosocial stressors, such as nuisance from neighbours, drug misuse in the area and rubbish on the streets, have been shown to be associated with fair to poor self-rated health ([Agyemang et al 2007](#)). As part of the growing recognition of the importance of community support, social movements for mental health are developing, examples of which include the ‘Thrive’ movements in London and New York ([Thrive LDN undated](#)).



There are many ways in which more community-centred approaches to health, wellbeing and public mental health can contribute to improving population health, from asset-based models that focus on a community’s capabilities rather than its needs, to volunteering. The former approaches seek to identify and strengthen the assets within a community – such as associations, informal networks, skills and leadership – to help the community to have more control over the conditions that affect its health. To see some examples, The Health Foundation has compiled case studies (Rippon and Hopkins 2015), including Forever Manchester, which employs trained ‘community builders’ to support people to take community action at the neighbourhood and street level. ‘Well North’ continues this approach (Well North, undated). Meanwhile, Public Health England has reviewed the evidence for each of these community-centred approaches and set out a helpful typology (Public Health England 2015b) (Figure 10).

Figure 10 Community-centred approaches for health and wellbeing





* * *

Each of the four pillars of the framework is essential to population health and any approach that does not focus on all four can only be a partial solution. To improve population health it is essential for policy-makers to recognise this and then act on it. But this is not sufficient. It also requires a stronger focus on how policy and intervention under each of the pillars are reinforced through connections with the other pillars – in short, there needs to be a conscious focus on viewing the pillars as **interconnecting parts of a single population health system**.



5 Towards a population health system: connecting the pillars

Understanding systems

Given the reality of how our health is determined, our vision for population health needs to be delivered through a coherent system. The *Oxford English Dictionary* defines a system as ‘a set of things working together as parts of a mechanism or an interconnecting network; a complex whole’.

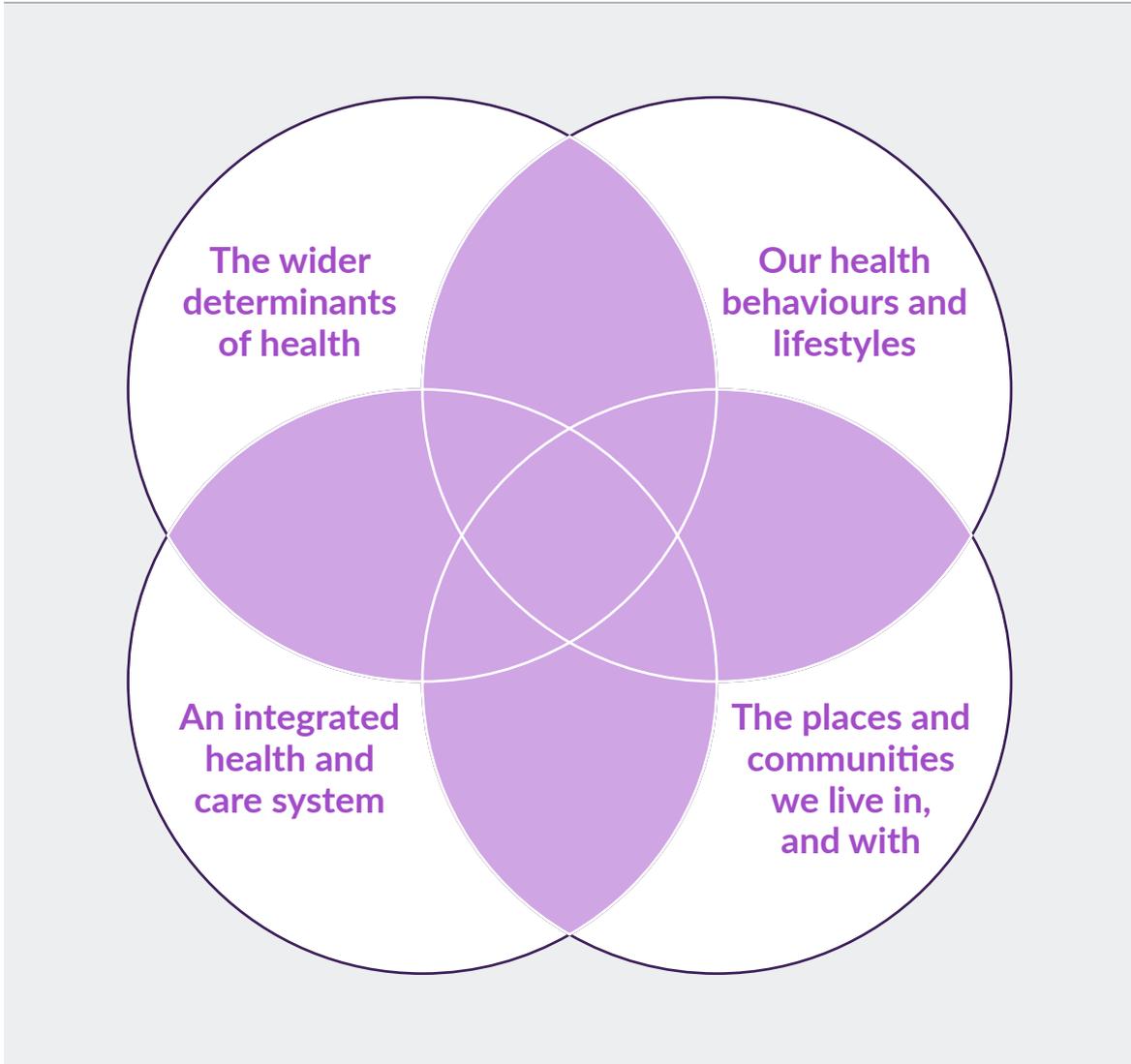
One focus of health policy over the past 10 years and more has been on making the NHS ‘system’ work better, primarily through integrated care, as set out in section 4. The same level of effort needs to be expended on the population health system, of which the NHS is part. In many ways, policy thinking on population health is in the same place as it was on the NHS 10 and more years ago – that is, there is wide acknowledgement that the key parts, or pillars, of the population health system exist and they are important to health. But these pillars are not connecting well as a system, locally, regionally or nationally.

A population health ‘system’ and connecting the pillars

Even if resources and focus were more aligned with what drives our health, that would still go only some way towards fulfilling the potential of a true population health system. This is because we would still have a system that operated in silos. It wouldn’t really be a system at all in the sense of the definition set out above.

Figure 11 is a simple way of visualising the inter-connectedness of the four pillars that we showed in Figure 6. A population health system needs to **recognise and maximise the activity in the overlaps** between the pillars, as well as develop activity in, and rebalance activity between, the four pillars themselves. This forces us to ask the question, what is happening in the shaded ‘rose’ in Figure 11 as the overlap between the pillars?

Figure 11 A population health system that recognises and maximises the activity in the overlaps between the pillars





This simple diagram is a flexible framework to think through the activity and connections that are currently taking place that help to define a population health system – at local, regional or national levels – and what more could be done to move towards a better and more coherent population health system. It focuses questions about the boundaries between organisations, sectors and actors, and how knowledge, ambitions, structures and policies in one space relate to and influence those in others. The framework also helps to define the opportunities and dynamics of the ‘complex adaptive system’ ([The Health Foundation 2010](#)) that is a population health system.

Mapping out the population health system framework: examples of connections across the pillars

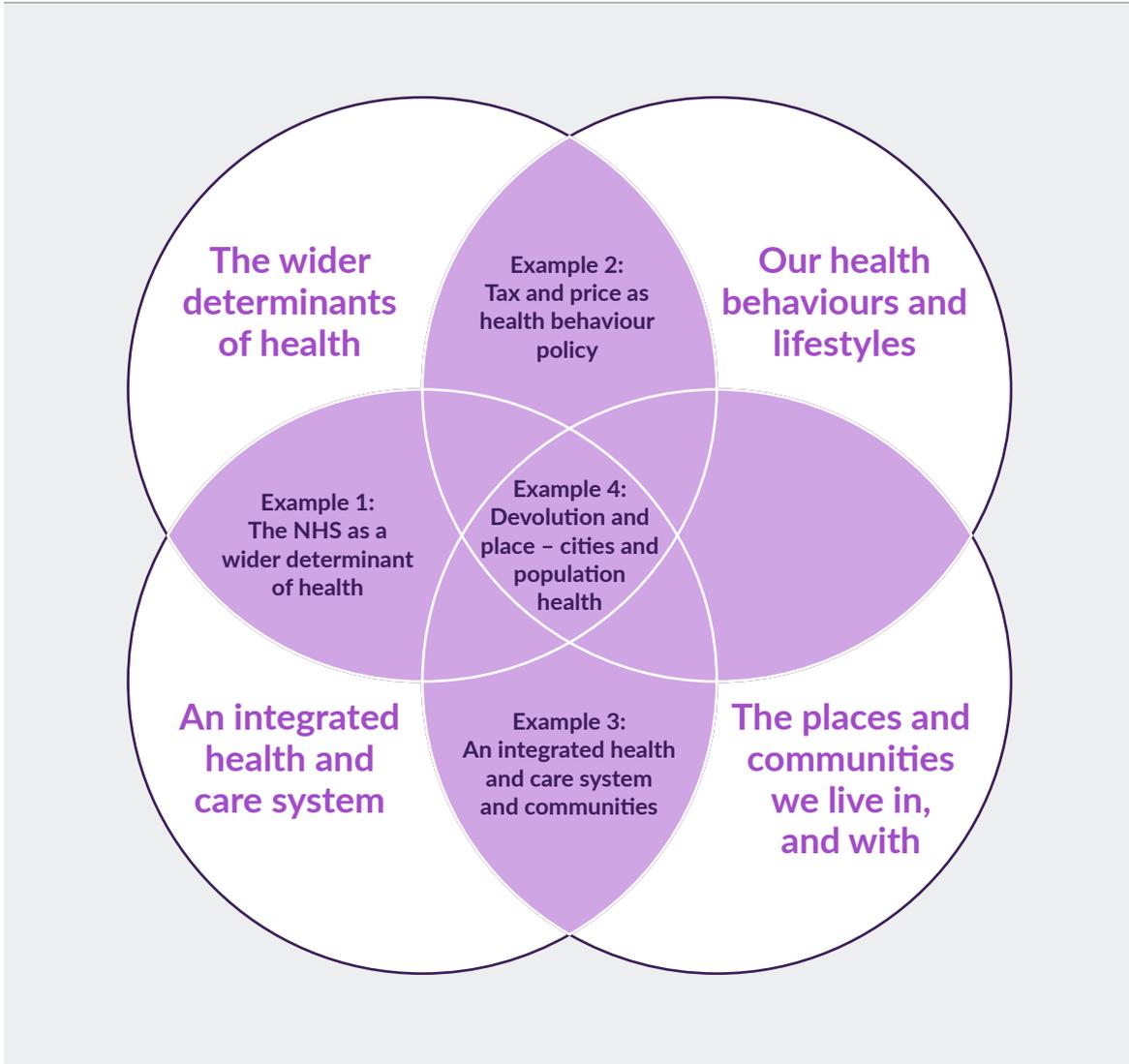
There is no set recipe for a population health system, but having a good answer to the question of what is going on, and what could go on, within the ‘rose’ is a prerequisite for those claiming to be leading or developing a population health system.

In this section we set out four examples of what that answer could include. They illustrate that a population health system can and should include:

- **national** action, such as taxation policy
- **regional** action, such as place-based partnerships
- **local** action, such as work to involve local communities.

The examples are drawn from what is already happening in England and elsewhere. But it is not happening everywhere, and it is not happening coherently at scale. Below we map out the examples in relevant parts of the ‘rose’ (Figure 12).

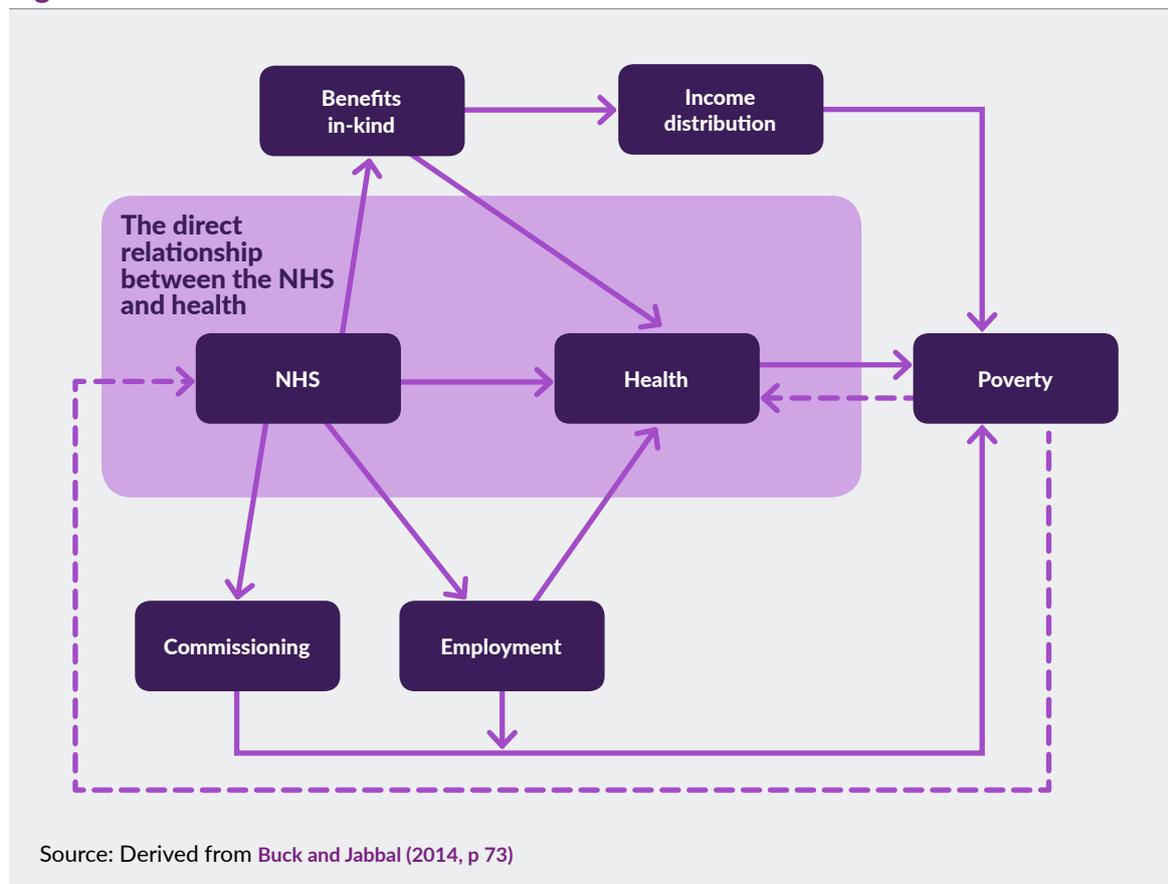
Figure 12 Examples of activities that could help to constitute a population health system



Example 1: The NHS as a wider determinant of health

The NHS is a wider determinant of health, not just a provider of treatment and prevention. Below we set out some of the ways it influences health through this route in more detail (Figure 13).

Figure 13 How the NHS influences the wider determinants of health



One powerful way in which the NHS has an impact in terms of the wider determinants of health is its role in mitigating income inequalities, which are strongly linked to inequalities in health. The Organisation for Economic Co-operation and Development has calculated that because NHS services are free at the point of use, the UK's income inequality is 13 per cent less than it would be if citizens had to pay directly for the health services that they use (NHS Health Scotland 2018a).



The NHS is also by far the largest economic entity in the country, accounting for more than £140 billion of UK government spending (more than 7 per cent of UK Gross Domestic Product) in 2017/18 (Stoye 2017) and employing around 1.5 million people across the UK (Full Fact 2017). The NHS is an economic giant and a part of all local economies, but it is more economically important in those parts of the country with higher levels of poverty, for example contributing up to nearly 16 per cent of employment in some areas in the north-east of England. Who the NHS employs, and on what wages, has an impact on income and poverty and therefore on health, locally and overall at a national level.

There are welcome signs that NHS organisations are increasingly understanding their role in the wider determinants of health, in particular seeing themselves as ‘anchor institutions’: that is, they are rooted in places and therefore have an impact on and responsibility to those places, beyond the delivery of treatment and care (RSA 2017; Stott 2017; NHS Confederation 2017). For example, Guy’s and St Thomas’ NHS Foundation Trust targets apprenticeships and work placements on long-term unemployed people, and Sandwell and West Birmingham Hospitals NHS Trust is working with partners to make use of unutilised buildings on trust grounds to provide housing through its apprenticeship programme, which targets young people at risk of or facing homelessness (The Health Foundation 2018). There is also increasing recognition of the importance of health systems to wider economic and fiscal objectives nationally (Cylus *et al* 2018) and locally.

Sustainability and transformation partnerships (STPs), ICSs and health and wellbeing boards at regional and local levels, are in principle ideally placed to develop more strategic partnerships between the NHS and other sectors that drive our health, such as housing and education. The Montefiore health system in New York offers a powerful example of how they can develop this role (Collins 2018). However, despite some recent welcome signs of change, there has been little progress overall. We have set out what the NHS working with wider determinants of health could look like in practice, taking the example of what an STP that took housing seriously as a way of improving the local community’s health would do (Buck and Gregory 2018). This example reveals a number of short-term priorities – discharge from hospital, the use of surplus NHS estates for housing, and supporting mental health in the community – and opportunities for improving health across the life course in the long term.



In the UK context, ‘inclusive growth’ and devolution are key to how public sector anchor institutions contribute to local economic wellbeing (RSA 2017; Stott 2017). The NHS Confederation has taken a lead for the NHS contribution to inclusive growth through its Local Growth Academy (NHS Confederation 2017) and a number of NHS organisations, particularly hospitals, are actively developing roles as anchor institutions (The Health Foundation 2018).

Example 2: Tax and price as health behaviour policy

The choice of what products to tax (and how), how to levy tax rates, and other pricing mechanisms – such as the minimum unit pricing of alcohol – are powerful and direct tools in policy-makers’ hands that affect the behaviour of consumers, retailers and producers that in turn affect health. In some cases these mechanisms may directly fund health services or prevention programmes (‘hypothecation’), although doing so is not straightforward and brings with it a further set of policy considerations (Murray 2018b). We set out the case for a more proactive approach to these so-called ‘sin taxes’ below.

One justification for taxing certain products at a higher rate than others is that the private costs of consuming them are lower than the social costs. For example, passive smoking is a cost to others rather than the individual smoker, and there are significant costs associated with violence and crime linked to excess alcohol consumption. More generally, research and polling into public attitudes shows a willingness to pay more taxes for health and the NHS (Evans 2018). While tobacco products have – rightly – faced a tax escalator linked to compensating and correcting the social or health effects, this is not so for other products.

We believe that the government should give further attention to four areas in particular:

- alcohol
- high fat, salt and sugar (HFSS) products
- subsidies for healthy products
- multiple unhealthy risk factors.



The way that alcohol is currently taxed makes no sense from a health or social costs perspective. Those who drink alcohol to excess tend to consume alcohol at higher strengths – in particular ciders and spirits – and the tax system should reflect this if it aims to discourage excessive consumption and compensate for health and wider social costs. But tax is lowest on high-strength cider and the real level of excise duty on spirits has fallen by 50 per cent since the late 1970s (Griffith *et al* 2017a). It is clear that this needs to change if the health and wider social costs of alcohol are to be reduced (Griffith *et al* 2017b), whether through taxation or a minimum unit pricing of alcohol units, as introduced in Scotland in 2018 (Scottish Government 2012) and recently approved in Wales (Welsh Government 2018).

The taxation and pricing of HFSS products, particularly soft drinks, has attracted significant political and public debate, leading to the introduction of the soft drinks industry level (SDIL) in April 2018. The levy works by taxing soft drinks at differential rates according to their sugar content, from 18p per litre if they contain more than 5g of sugar per 100ml, to 24p per litre if they contain more than 8g per 100ml. While the long-term impacts of this are yet to be seen, it is clear that it has had a significant impact on industry: producers reduced the sugar content in more than half of all relevant soft drinks in order to avoid the new levy (Triggle 2018).

The arguments for taxing other HFSS foodstuffs are gaining popularity given the challenges of obesity. There are also arguments for subsidising or individual incentives for eating healthier food (Belot *et al* 2016). Some models suggest that subsidising healthy foods would provide the best balance of direct effects on both obesity and income for the exchequer (Flores and Rivas 2016).

The World Health Organization has carried out a meta-review of systematic reviews on fiscal policies with the potential to improve diets and the main findings are summarised below (Table 4).

Health behaviours often have an impact in combination, rather than in isolation from one another. Our previous analysis has shown that seven in ten people do not comply with at least two government guidelines on alcohol, tobacco, diet or physical activity (Buck and Frosini 2012). Studies have shown that increasing the price of one risk factor, such as tobacco, leads to a decline rather than an increase in the consumption of another, such as alcohol, because people use the risk factors as complements rather than substitutes (Tauchmann *et al* 2008).



Table 4 Summary of the main findings of a World Health Organization meta-review of systematic reviews on fiscal policies on diet

	Food/beverage taxes	Nutrient-focused taxes	Subsidies
Effect on consumption	Strongest evidence for sugar-sweetened beverage taxes – reduce consumption by same percentage as tax rate.	Reduce consumption of target but may increase consumption of non-target nutrients; may apply to core foods; better if paired with subsidy.	Subsidies increase healthy food intake. Strongest evidence for fruit and vegetable subsidies.
Effects on body weight/ disease outcomes	Substitution will affect total calorie intake. Most effective to target sugar-sweetened beverages. Limited evidence for disease outcomes.	Disease outcome affected by substitution – nutrient profile taxes less likely to have unintended effects than single nutrient-based taxes.	Subsidies may also increase total calorie intake and body weight. Very likely to reduce dietary non-communicable disease risk factors.
Differential effects	May be most effective for low-income populations; may have greater effect on those who consume most.	May be more likely to have regressive effects as more likely to apply to core foods.	Mixed socio-economic status effects for population subsidies; may benefit wealthy. Targeted low-income subsidies effective.

Source: [World Health Organization \(2016, p 13\)](#)

Changing the relative tax or price of important goods that affect our health is a key policy lever in pursuing any vision for population health. A comprehensive fiscal approach to behaviour changes would make use of these effects to maximise influence on behaviour change. The government should co-ordinate its taxing and pricing policy across food, soft drinks, alcohol and tobacco.

Example 3: An integrated health and care system and communities

In our view, STPs and ICSs will not be successful if they do not engage seriously with the role of communities in improving and sustaining good health. One way to think about this is set out below, showing the different service and community emphases of different ways of involving communities in health and care services (Figure 14).

Figure 14 An integrated health and care system and communities



Community development (such as asset-based community development) and community commissioning support communities to improve their health themselves. One good example is how the Morecambe Bay Health and Care System has been working more closely with communities ([Knox 2018](#)). This has included working with schools on healthy eating and exercise, seed funding for local mental health cafes, and churches setting up 'listening services' in GP centres. Clinical teams are also taking more of a coaching approach in consultations in supporting people to learn more about their conditions.



The health and care system can also do more to involve communities in service design and pathways of care ([Shared Future 2017](#)) and in community commissioning ([Local Government Association 2018](#)). The former gives communities greater control over the design and delivery of health, care and other services they receive and involves them in understanding needs, setting priorities and agreeing solutions. In the latter, community members decide how resources are allocated and help to scrutinise the decisions made afterwards. For example, some local authorities ([Cheshire West and Chester undated](#)) have consulted local residents on where to make budget savings and how to spend local budgets ([Local Government Association 2016](#)). We have set out a range of examples in our recent report on community services ([Charles et al 2018a](#)).

Greater Manchester has one of the most well-established (although still developing) approaches to working with communities. We describe some key aspects of its approach later in this section. Surrey Heartlands ICS also has a notably well-developed approach to engaging local citizens to gain a better understanding of how to design new services. In addition, it has a citizen panel, with thousands of local people registered to receive surveys to gather their views on NHS services on a regular basis. The ICS has been leveraging its links with the county council to run this work, recognising that much of the drive and expertise for engaging with communities can come from local authorities.

Other areas are also looking to make closer links between NHS services and community assets. For example, the Advice on Prescription partnership between South Liverpool Citizens Advice and Liverpool Clinical Commissioning Group was set up to help GPs deal with patients with high levels of distress due to debt, housing problems and job loss, and it has now been extended across Liverpool ([South Liverpool Citizens Advice and Liverpool Clinical Commissioning Group 2017](#)).

Wigan Council has been working with its local communities and NHS organisations since 2011, based on a fundamental rethink of the relationship between the council and its residents. Wigan's approach includes a clear and explicit deal between the council and residents (Figure 15), with significant investment in involving people, acting on the things that they say are important (such as green spaces), and training more than 3,000 staff. At the time of writing, Wigan has 13,000 residents who are 'health champions' (including heart, cancer and alcohol champions, young health



champions and dementia friends) in a population of 323,000 people. Evidence shows that population health outcomes are improving with reductions in smoking rates, suicides and premature deaths from heart disease and cancer (Ardern 2016).

Figure 15 Wigan’s Deal for Health and Wellness

Deal for Health & Wellness

NHS | **Wigan Council**

Our part

- Support families to give children the best start
- Create training opportunities and jobs
- Provide seven day access to GP services
- Help communities to support each other
- Help you to remain independent for as long as possible
- Provide leisure facilities to help keep you healthy and active

Your part

- Lead a healthy lifestyle and be a good role model
- Take advantage of training and job opportunities
- Register with a GP and go for regular check ups
- Get involved in your community
- Support older people to be independent
- Make the most of leisure facilities and be active

5 Boroughs Partnership **NHS** NHS Foundation Trust | Warrington, Wigan and Leigh **NHS** NHS Foundation Trust

healthwatch Wigan | Bridgewater Community Healthcare **NHS** NHS Foundation Trust | **NHS** Wigan Borough Clinical Commissioning Group

Source: [Wigan Council \(2018\)](#)

Example 4: Devolution and place – cities as population health systems

Our cities have enormous potential to be health-generating places by connecting up the four core pillars of a population health system. However, they also face considerable challenges and realising this potential is not straightforward.

In the UK, more than eight out of every ten people live in an urban area and most of the remainder live within the economic, social and cultural influence of a nearby town or city. For many health conditions, cities are where inequalities are



greatest – but also where the greatest expertise and other assets to tackle them exist. The breadth of cities’ roles in complex social and economic issues, and their ability to learn from each other through a growing array of networks, make them well placed to provide leadership across population health approaches.

Our recent work on cities and health (Naylor and Buck 2018) explored how international cities are doing this, and what lessons we can learn in England. From Amsterdam’s work on childhood obesity, to Paris’s support for community decision-making and Mexico City’s city innovations lab, we found a number of common roles for cities that have made strides in improving population health (Table 5).

Table 5 Roles for city governments in population health

Role	What can city governments do?
Co-ordinating system-wide action	<ul style="list-style-type: none"> • Ensure there is co-ordination of activity on population health and adequate investment in central programme management. • Use an explicit methodology for collaborating effectively and achieving change.
Promoting innovation	<ul style="list-style-type: none"> • Make full use of the assets available in a city, including universities, businesses and the philanthropic sector to address the social determinants of health. • Explore ways of stimulating innovation, for example, using innovation labs, challenge prizes or innovation funds. • Develop mechanisms for sharing learning and spreading successful innovations across the city.
Using regulatory and legislative levers	<ul style="list-style-type: none"> • Be evidence-based and clearly articulate the scientific rationale for introducing new regulation. • Know the law and have ready access to expert legal advice. • Use regulatory approaches as one component of a broader strategy to improve population health, rather than in isolation.
Mobilising the population	<ul style="list-style-type: none"> • See communities as one of the key assets in a city and empower citizens to lead small-scale local change to improve the communities they live in. • Explore different tools to engage people in civic decision-making, such as online portals or participatory budgeting.
Using planning powers to create healthy places	<ul style="list-style-type: none"> • Draw on published guidance and evidence about using spatial planning processes to create health-promoting places. • Ensure the city has the data it needs to make informed decisions about cycling, walking and the use of public spaces.

Source: Reproduced from Naylor and Buck (2018)



The co-ordination function is particularly important, helping to bring all the relevant sectors and actors together across the four pillars. Cities and the NHS each have their own separate systems of leadership, funding and governance. Cities need to develop their role in population health in co-ordination with STPs/ICSs and local NHS organisations.

These functions vary widely in how well they are developed in English cities. For example, London has many assets to draw on in improving population health and has the potential to become a world leader in areas such as healthy transport strategies. But it also faces significant challenges. Chief among these in our view are its complex and fragmented governance arrangements, which can create problems for co-ordinating activities across the city and for accountability. As well as the recent devolution agreement and the Mayor of London's new health inequalities strategy ([Mayor of London 2018](#)), London's STPs offer potential but need to do much more on prevention and population health with their partners ([Ham 2018](#); [Kershaw et al 2018](#)).

By contrast, Greater Manchester Combined Authority (GMCA) has focused on creating the conditions for inclusive economic growth (for its initial powers, see [HM Treasury and Greater Manchester Combined Authority undated](#)). As part of this overarching goal, it used delegated powers from NHS England and Public Health England to develop a specific Greater Manchester population health plan ([Greater Manchester Health and Social Care Partnership 2018](#); [Rouse 2017](#)). The plan includes:

- quick wins implemented at scale across the GMCA
- more standardised approaches across local areas with the same priorities
- high return on investment delivered through community-centred approaches, across the lifecourse
- linking population health to wider GMCA plans for transport, housing, economic growth, planning and integrated health.

The GMCA is doing this within a locality delivery model based around neighbourhoods of between 30,000 and 50,000 citizens, rather than around themes, policy areas or organisations. Each neighbourhood is served by an integrated place-based team, with co-located professionals from all public services working together.



As the Mayor of Greater Manchester, Andy Burnham, has said:

As Secretary of State for Health, you can have a vision for health services. As Mayor of Greater Manchester, you can have a vision for people's health. There is a world of difference between the two.

When I was elected, I thought the challenge was all about integrating the NHS with social care. And, yes, it is partly about that.

But as Mayor of the only city-region with health devolution, it has become increasingly clear to me that the unique opportunity Greater Manchester has is to integrate health with everything – early years, education, community safety, housing and employment.

And we are all determined to take it.

(Burnham 2018)

Cities have the capability and the clout to plan, co-ordinate and deliver population health at scale while managing to retain the local responsiveness and agility that national policy-making can sometimes lack. The leaders of cities and city regions are set to become increasingly prominent political actors in the UK. There will be growing opportunities for them to exercise leadership in relation to population health.

* * *

The four examples we have given in this subsection are not meant to be exhaustive or comprehensive – there are many examples of other connections. Rather, this is an illustration of how our framework of the four pillars and the connections between them could be used to develop what a population health system means to different actors in **their** context. As well as government, local authorities and health and care systems, that could include other sectors at national and regional levels (for example, housing) and research organisations.



6 Supporting the journey towards a population health system: what needs to change?

We want to see major improvements in population health. Leadership – especially political leadership, at both national and local levels – is of critical importance to bring this about. There also needs to be greater clarity on roles and accountabilities, and on funding and funding mechanisms.

Our recommendations span national, regional and local levels with immediate, short-term and longer-term timescales. They are summarised in appendix 2.

Required changes to system leadership for population health

The case for stronger national leadership on population health and health inequalities

National system leaders – for example, in NHS England and Public Health England – have an essential role in achieving our vision. Stronger political leadership is also essential to influence across different sectors and bring them together, to win hearts and minds, and to keep population health at the top of the priority list.

The current Secretary of State for Health and Social Care, Matt Hancock, identified prevention as ‘mission critical’ and one of his three top priorities. The strategy *Prevention is better than cure* (Department of Health and Social Care 2018) is a welcome signal of his willingness to provide direction and leadership for prevention and population health, across the health and care system and beyond. It recognises the fundamental importance of focusing on the wider determinants of health to deliver the vision.



Previous ministers – not least, Andrew Lansley – have also arrived in office with good intentions and talked up the importance of public health and prevention, only to end up not delivering as short-term challenges consume their time and political capital. It must be different this time. Population health and health inequalities must be at the very heart of the Secretary of State’s role with support from the Chief Medical Officer and co-ordinated action across government.

The first priority for the promised Green Paper should be a new cross-government strategy on health inequalities. We now have convincing evidence that the last health inequalities strategy ([Department of Health 2003, 2008](#)), active until 2010 under Labour, had an impact, through a combination of NHS and cross-government actions ([Barr et al 2017](#)).

Key factors in the strategy’s success included clear targets and priorities, both for health (eg, life expectancy, infant mortality) and for broader social policy (eg, child and pensioner poverty). All government departments were engaged, resulting in 82 commitments ranging from housing standards to employment levels, with robust monitoring and a support unit. Additional NHS resources were targeted to deprived areas, with a measurable impact on reductions in mortality and a narrowing of the life expectancy gap with the rest of England.

These improvements went into reverse once the strategy ended ([Barr et al 2014, Barr et al 2017](#)). The messages are clear.

- Inequalities in health are persistent and stubborn to shift, but with clear focus, resources and a long-term approach *they can be shifted*.
- The NHS has an essential role but the approach needs to be much broader, across all four pillars of our framework and with strong accountability and support to keep efforts on track.
- A weakening of effort, as has happened since 2010, has resulted in health inequalities widening again which underlines the need for constancy of purpose.

A new strategy on health inequalities must be at least as ambitious, broad and committed as the previous one, and draw on the learning about what made that one effective. It should go further in exploiting the opportunities that we now



have from more integration and devolution of services and to reflect evidence about the growing importance of morbidity as well as mortality – especially musculoskeletal morbidity and mental health (Steel *et al* 2018).

England can learn from other countries including those close to home. Scotland has developed a human rights approach to policy on population health and health inequalities (NHS Health Scotland 2018b). The Well-being of Future Generations (Wales) Act 2015 set seven national goals for wellbeing in the broadest sense, with strong and transparent accountability, in line with the national goals and stronger accountability that we have called for in this report. The Public Health (Wales) Act 2017 requires health impact assessments for all substantive policies. We believe that England should develop equivalent legislation.

Recommendations for national leadership

- Population health should be central to the Secretary of State's role including the lead responsibility for health inequalities.
- The government should announce a new cross-government strategy on health inequalities and ensure that it is being implemented within three years.
- The government should establish robust cross-government arrangements for co-ordinating leadership, monitoring and accountability for population health goals and health in all policies.
- Within three years there should be a requirement that all relevant government policies have a health impact assessment and this should be fully implemented within five years.

The case for stronger local system leadership

In principle, arrangements for local system leadership of population health are in place. In local authorities there are health and wellbeing boards, while STPs and ICSs are a means to link in the NHS and services that are the responsibility of local authorities. However, these structures have overlapping roles and their relationship is unclear. Neither provides consistently effective leadership for population health and in some cases they are ineffectual (Local Government Association 2017; Kershaw *et al* 2018; Hunter *et al* 2018).



Who the system leaders are will vary from one area to the next. Different approaches are likely to work for different areas and topics, such as:

- a combination of clinical and public health leadership ([Baylis et al 2017](#))
- leadership through STPs and ICSs ([Fell 2017](#))
- leadership by elected mayors ([Buck 2018a](#))
- 'Marmot Cities' (taking forward the recommendations of the 2010 Marmot review into health inequalities as their framework) ([Pearce 2018](#))
- local authorities developing a new relationship with communities ([Wigan Council 2018](#)).

Our research shows that system leaders need to develop the capacity for a systematised, programmatic approach, such as a central team who co-ordinate system-wide action, rather than just relying on committed individuals ([Naylor and Buck 2018](#)). As noted in section 4 of this report, local action *can* make a difference in reducing inequalities in health. Improvements in educational attainment, which are linked to improvements in health, are a good example of how local leadership and constancy of purpose are key ([Marmot et al 2010](#)). Areas like Wigan where the council has transformed its relationship with local people demonstrate that health outcomes can improve where local leaders draw on all the assets that exist.

Effective system leaders for population health will need to give attention to those they seek to lead. This will include investing in the core public health workforce to develop technical and relational skills, but there is also a larger and wider workforce with vast potential to improve population health. The Royal Society for Public Health ([2015](#)) consider this to include more than 3 million people in roles such as home care workers; teachers; the wide range of support workers in hospitals or care homes; fire and police officers; welfare and housing staff; and sports and fitness coaches.

Many in these roles are already making strong contributions to population health. The Local Government Association has published a range of case studies ([Local Government Association 2015](#)), but this opportunity is not yet being realised everywhere. Engaging this wider workforce is about realising a shift into a broader culture of population health in which everyone has a role to play.



Recommendations for local system leadership

- Local and regional partnerships should use our population health framework to review their activity on population health (including where there are gaps) and to map out leadership responsibilities.
- Local and regional system leaders and politicians should champion population health and ensure that, within three years, there is clear leadership for population health and plans are in place which are co-ordinated across the area and across those responsible for the wider determinants of health.
- Local and regional system leaders should put plans in place to develop the wider population health workforce.

Required changes to roles and accountability

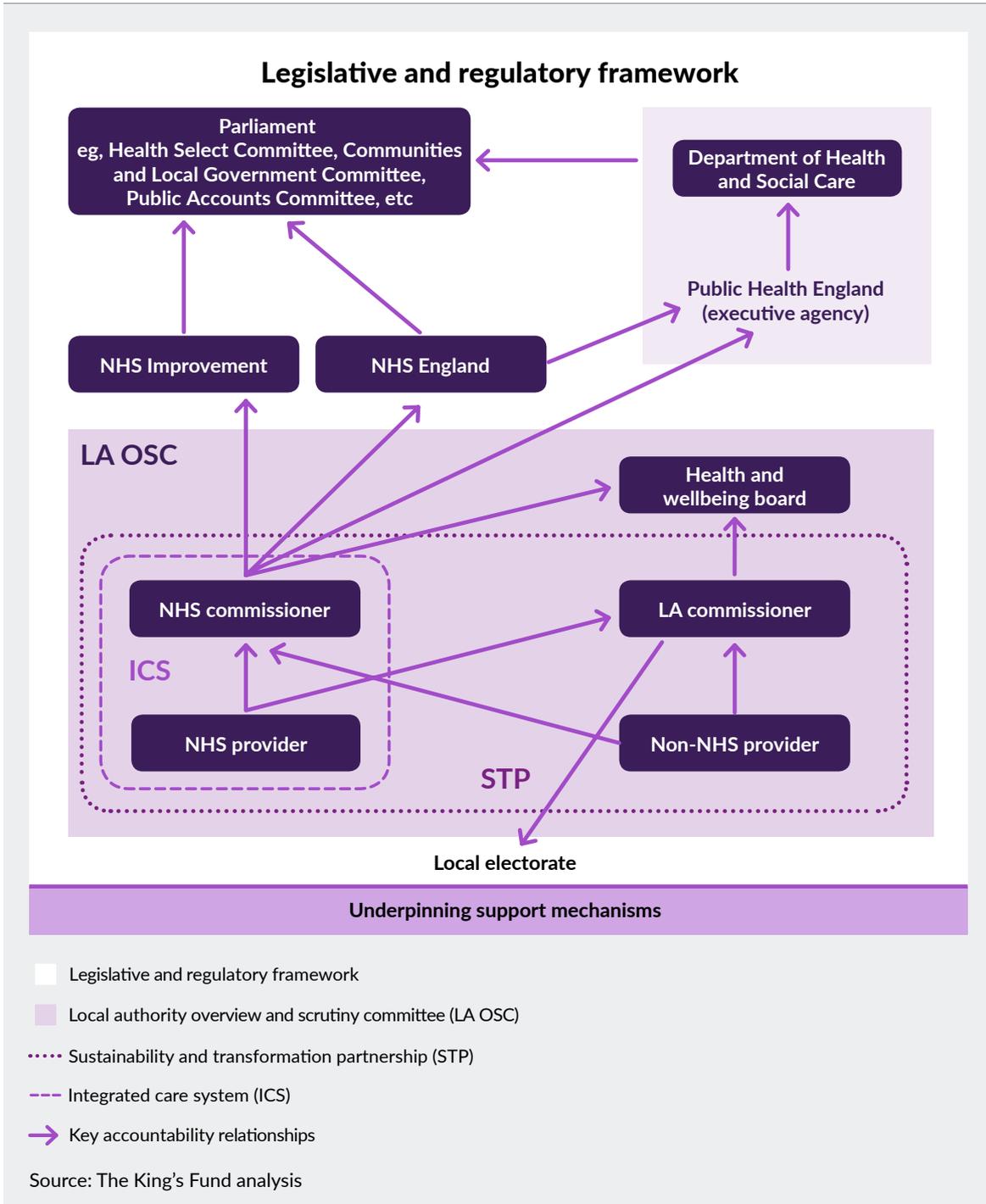
Accountability for population health is inherently complex because it depends on co-ordinated action by different sectors and organisations. Following the Health and Social Care Act 2012, the accountability landscape in and around the public health system has become even more complicated (Figure 16) with no one agency in a clear leadership role.

Here we set out key considerations for making the accountability framework more effective, and for designing it on principles that require progress rather than only reacting to problems ([Guerin et al 2018](#)).

The case for greater clarity over national bodies' roles and accountabilities with the rest of central government

Accountability at a national level needs to start with clear expectations that people can be held to – the sort of binding national goals that we called for in section 3 of this report and appendix 1. These goals need to be owned by the government, not just the Department of Health and Social Care. Given the complexity of roles and accountabilities, setting the goals will need to be accompanied by a high-level review of who will be responsible for what in order to achieve them.

Figure 16 Key accountability frameworks and relationships in ‘and around’ the public health system, England





The Secretary of State for Health and Social Care must play a strong leadership role and have clearer accountability for population health, to follow through on his recent vision for prevention ([Department of Health and Social Care 2018](#)). Cross-government co-ordination will be needed to ensure that health considerations are included in all policies. Among national bodies, the roles and accountability of the Department of Health and Social Care, NHS England and Public Health England in support of this leadership arrangement must be clarified to avoid duplication and make best use of the expertise they possess.

NHS England has some statutory public health functions, for example relating to vaccination and screening programmes. It also contributes to population health through clinical strategies for different conditions (eg, children's and young people's mental health) and sectors (eg, primary care) and has been a champion in some wider areas (eg, the Healthy New Towns programme). Hopes are high that the forthcoming long-term plan for the NHS will have a stronger focus on prevention, especially given the strong indications in *Prevention is better than cure* ([Department of Health and Social Care 2018](#)).

NHS England's role needs to develop so that prevention is recognised as core business. It also needs to act in partnership with other bodies with prevention responsibilities at both national and local levels. The recent roll-out of its pre-diabetes prevention programme has not engaged with the role of local government in supporting healthy lifestyles, illustrating opportunities for more effective coordination among the different agencies working to improve population health.

Public Health England is well regarded internationally ([Public Health Institutes of the World 2017](#)) although at home it has also been challenged on some recent decisions ([Weaver 2018](#)). It is formally an executive agency of the Department of Health and Social Care, and accountable to the Department and the Secretary of State for Health and Social Care. Public Health England could take on a stronger role in assuring progress towards national goals – both overall and the relative contributions of individual local authorities, STPs and ICSs and other sectors – if it had the powers and status to do so.

There is a parallel with the work of the Care Quality Commission (CQC) in reporting on the quality of health and social care in England. The CQC annual reports on the



state of care provide independent and authoritative updates on how the quality of care is changing and commentary which draws on the breadth of its insight into progress, risks and priorities.

Recommendations for greater clarity over national bodies' roles and accountabilities

- The government should develop and set meaningful high-level national goals for population health and health inequalities.
- Alongside that, the government should map out the roles and expectations for achieving those goals, including in particular the roles of NHS England and Public Health England.
- The government should review Public Health England's national and regional roles, including its status and powers to enable it to be effective across government as a whole.

The case for greater clarity over the accountabilities for regional and local population health outcomes

Accountability is also inadequate at local and regional levels. In between local elections, local authorities' ongoing accountability for public health outcomes is largely limited to developmental peer review, with self-regulation of follow-up ([Local Government Association undated](#)). As long ago as 2013, MPs expressed extreme concern about this weakness of accountability ([Buck 2013](#); [House of Commons Draft Local Audit Bill ad-hoc Committee 2013](#)). There is also little sign that STPs have been held to account for their contribution to population health so far. NHS England's performance dashboard on their performance does not assess public health services, wider determinants of health or population health outcomes ([NHS England 2017](#)).

The regional level – STPs, ICSs, devolved authorities – should have a particularly important role in population health by mediating between national goals and local actions in a way that avoids either top-down prescription or a bottom-up free-for-all. The planned second iteration of STPs in 2019, alongside the proposed Green Paper on prevention and the forthcoming long-term plan for the NHS,



provide opportunities to clarify the role and expected impact on population health of these partnerships.

Adopting a population health approach will mean re-focusing and aligning existing health and well-being strategies and making connections to a wider range of partners. Whether it is through health and well-being boards, STPs, ICSs or other bodies, local politicians and system leaders must ensure there is clear accountability for improving population health at local level.

Recommendations for greater clarity over the accountabilities for regional and local population health outcomes

- Local bodies such as devolved authorities, ICSs and the second iteration of STPs should ensure clarity from regional partners and leads over population health roles and accountabilities. As these develop, they should ensure a clear line of accountability between national goals and local decisions.
- Local authorities and NHS bodies should work together in identifying and implementing priorities for their areas, being clear how these relate to national goals. In doing so they should ensure that accountability goes beyond public health teams and health and care services, to join up with those responsible for wider determinants of health.

Required changes to funding levels and funding mechanisms

Despite the evidence that shows it is the wider determinants of health that are most critical, followed by our health behaviours, political attention has mainly focused on the NHS and resources have, unsurprisingly, flowed to follow this focus. A population health approach will call this historical pattern into question.

The case for more spending on prevention and public health and wider spending that supports population health

The increases announced in NHS funding are less than The King's Fund (2018) and others have called for, but they do represent a significant increase relative to other government departments. Local authorities, on the other hand, have experienced



a 49 per cent real-terms cut in central government funding between 2010/11 and 2016/17 (Figure 17), leading to a 28.6 per cent reduction in their spending power (National Audit Office 2018a). As a result, spending on activities that support population health has fallen.

There needs to be a rebalancing of resources between the four pillars to address this. Doing that is easier said than done, but the forthcoming long-term plan for the NHS is a key opportunity (Ham and Murray 2018). It should commit the NHS to

Figure 17 Change in spend by service area, all local authorities in England, 2010/11 to 2016/17





seeing population health and health inequalities as core priorities, and therefore part of its investment decision processes, and to working alongside key partners such as local authorities (Buck 2018a).

Local authority spending per head on key prevention services is on track to fall by almost a quarter in real terms between 2014/15 and 2019/20 as a result of cuts to the public health grant and wider local authority budgets (Finch *et al* 2018), despite clear and strong evidence of the economic case for investing in health promotion and disease prevention (McDaid *et al* 2017). This has been estimated as a real cut of around £690 million (Appleby 2018).

Separately, The Health Foundation has estimated the required funding to both reverse the public health cuts and to remove the existing variation in spending between areas, assuming that no area is allowed to experience a cut in funding; an extra £3.2 billion, of which £2.5 billion arises from this 'levelling up' of local funding (Finch *et al* 2018).

In our view, the minimum requirement is to restore local authority spending on public health to its highpoint in 2015/16, uprated for inflation and population change. This funding also needs greater protection: over decades we have seen resources cut when budgets are tight, then reinstated for a period, before more cuts. This short-termism, reinforcing a mindset that prevention and public health are optional, needs to change.

We need a better understanding of what constitutes 'sufficient' funding for population health. Alongside that, given the current weakness of accountability arrangements, greater assurance will be needed that the tools available to check value for money are used fully and consistently – such as the 'RightCare' initiative in the NHS, and Public Health England's guidance for assessing return on investment in public health.

There is a need to think broadly about options for funding population health, including public health budgets as part of that – tinkering at the edges will not be enough. Other current proposals which should be considered include a 'prevention transformation fund' (Plotkin 2018); a broader ring-fenced transformation fund (Ham and Murray 2018); and separate budget lines for prevention in the same way that capital is currently separated from revenue (Burstow *et al* 2018).



In addition, as we described in section 5 of this report, the government has provided a case study of how fiscal policy can incentivise reductions in risk factors and at the same time raise income that can be invested in population health, while still commanding public support. Learning from experience of the soft drinks industry levy, it should go further and develop new ways of using differential taxes, levies and charges to influence both individuals' behaviours and products and services.

Recommendations for spending on prevention and public health and wider spending that supports population health

- The government should use the forthcoming spending review to restore public health grants to local authorities to at least 2015/16 levels (at least £690 million) and to move to multi-year settlements.
- The government should act now to understand the impact of cuts to wider local government funding on population health, for example by commissioning analysis of the effects of existing cuts, their likely longer-term impacts, and testing the likely impact of planned cuts.
- Within the next three years the government should assess how much local authority funding is required for population health (including but by no means limited to public health grants), and within five years it should be ensuring that level of funding is provided. This should begin with the forthcoming spending review.
- Local authorities and NHS bodies should ensure that they are making full use of the tools available to target population health spending on effective interventions. The NHS long-term plan should make it clear that prevention is a core part of the role of NHS organisations and invest resources accordingly.
- The forthcoming spending review should set out how, within three years, the government will trial new funding mechanisms for prevention, such as a prevention transformation fund, and implement successful mechanisms nationally within five years, to deliver the amount of local authority funding needed for population health (as in the recommendation above).
- Within three years, the government should make more use of 'sin taxes' and regulation to reduce health risks, building on the lessons from the soft drinks industry levy. Health improvement should be the core purpose of all such measures and tax structures should be designed accordingly.



7 Conclusion

Over the course of the 20th century, this country and many others made the ‘great escape’: life expectancy increased by more than 30 years in the 100 years to 2010. But today, we do not perform well on many health outcomes compared with similar countries, and health inequalities are persistent and widening. Increasing spending on the NHS and social care will not change this on its own.

In this report we have set out the case for a new approach, one that better reflects what determines our health as a population. This requires stronger national action, including new binding national goals and a national health inequalities strategy. It also requires concerted, systematic and coherent effort across the four pillars of a population health system: the wider determinants of health, our behaviours and lifestyles, an integrated health and care system, and the places and communities we live in and with. We have set out a framework to achieve that, a framework that places far more emphasis on the connections between the pillars, that is, what defines a population health system.

We have argued for the need to focus on changes to funding, and clearer and stronger accountability for population health. We have emphasised the need for stronger system leadership at local, regional and national levels, including political leadership and engagement with places and communities themselves. The set of changes we propose will make the journey towards a population health system faster and the realisation of our vision that:

Health outcomes and inequalities in health in England will be on a par with the best in the world. This will be achieved by a consistent and coherent focus on population health locally, regionally and nationally.

The need for action is now, and we have set out a framework and a path forward over the next five years to help bring about a shift to a population health system. At The King’s Fund we will continue our work in this area, making the case for change through our policy work and supporting and developing the system leadership to make it happen. We will do this through stepping up our work with and through others, across the pillars of population health. We hope that others will join us on the journey to a healthier future.



Appendix 1: A menu of possible national goals for population health

Improving population health

Table A1

Goal	Why?	By when?
<ul style="list-style-type: none"> Our life expectancy and healthy life expectancy match the best of our international peers. 	Life expectancy and healthy life expectancy (the proportion of life spent in good health) are good summary measures of the overall health of the population. We currently do averagely compared with our peers.	2030
<ul style="list-style-type: none"> Our avoidable mortality rates are the lowest among our international peers. 	Avoidable mortality – and its amenable and preventable mortality components – are good summary measures of health and care system performance and wider population health. We currently do poorly compared with our peers.	2030
<ul style="list-style-type: none"> People with mental health problems are as equally well physically as those without, with no difference in the incidence or prevalence of conditions or life expectancy. 	The physical health outcomes of people with mental health problems are unjustifiably poorer than those without, across a wide range of conditions and diseases. This is preventable and requires co-ordinated action across the NHS and local and national government.	2030
<ul style="list-style-type: none"> English children have the best early life experience compared with their international peers (for example, fewer adverse child experiences, lower infant mortality and best readiness for school). 	Early life experience is predictive of future health and wider social outcomes. This measure depends on the contribution of many sectors working coherently together.	2025



Reducing inequalities in population health

Table A2

Goal	Why?	By when?
<ul style="list-style-type: none"> There is a reduction in health inequalities between and within local authorities in life expectancy and healthy life expectancy of 15% by 2030. 	<p>This is similar to the previous Labour government's health inequalities target. It will require significant and concerted action but is achievable.</p>	2030
<ul style="list-style-type: none"> There is a significant reduction in health inequalities between and within local authorities in avoidable mortality (and its components). 	<p>This goal makes the health and care system, and its partners, have a more proportionate response to need and prevention.</p>	2025
<ul style="list-style-type: none"> Inequalities in smoking rates between social groups are eliminated. 	<p>The government believes that smoking rates are the largest single cause of inequalities in health (Department of Health 2017). If so, then this must be a critical goal for a national health inequalities strategy.</p>	2030
<ul style="list-style-type: none"> The 15-year gap in the onset of multiple morbidities (such as diabetes, mental health problems and hypertension) between the poorest and wealthiest sections of the population narrows to five years. 	<p>This inequality is driven by inequalities in many factors, and accounts for much of the inequality in healthy life expectancy. Achieving the goal will require actions across society.</p>	2025
<ul style="list-style-type: none"> The five-fold gap between the highest and lowest social groups in the experience of having three or four multiple health behaviours (in terms of smoking, excess alcohol consumption, poor diet and low physical activity) is eliminated. 	<p>Having three or four risk factors is predictive of premature mortality. In 2008, there was a five-fold gap between the highest and lowest social groups in the proportion of the adult male population who had three or four risk factors.</p>	2030



Appendix 2: Summary of recommendations

System leadership and the workforce

Table A3

	Immediately	Within 3 years	Within 5–10 years
National	<ul style="list-style-type: none"> • Government should announce a new cross-government health inequalities strategy. • Ensure cross-government arrangements for co-ordination, monitoring and accountability for population health goals and health in all policies. 	<ul style="list-style-type: none"> • Implement cross-government strategy on health inequalities. • Introduce a requirement for all relevant government policies to have a health impact assessment. 	<ul style="list-style-type: none"> • Core government policies routinely pass a health impact assessment test.
Regional	<ul style="list-style-type: none"> • Use our population health framework to review activity on population health (including gaps) and map out leadership responsibilities. • Ensure that plans are in place to develop the wider population health workforce. 	<ul style="list-style-type: none"> • System leaders and politicians ensure that, however activity is structured in their area, there is clear leadership for population health and plans are in place which are co-ordinated across the area and across those responsible for the wider determinants of health. 	
Local	<ul style="list-style-type: none"> • Use our population health framework to review activity on population health (including gaps) and map out leadership responsibilities. • Ensure that plans are in place to develop the wider population health workforce. 	<ul style="list-style-type: none"> • System leaders and politicians ensure that, however activity is structured in their area, there is clear leadership for population health and plans are in place which are co-ordinated across the area and across those responsible for the wider determinants of health. 	



Roles and accountability

Table A4

	Immediately	Within 3 years	Within 5–10 years
National	<ul style="list-style-type: none"> • Government should develop and set high-level goals for population health. • Map out the roles and expectations for achieving those goals, including in particular the roles of NHS England and Public Health England. 	<ul style="list-style-type: none"> • Following on from the wider mapping of roles and expectations, review Public Health England’s national and regional roles, including its status and powers to enable it to be effective across government as a whole. 	
Regional	<ul style="list-style-type: none"> • Local bodies such as devolved authorities, ICSs and the second iteration of STPs ensure clarity from regional partners and leads over population health system roles and accountabilities. 	<ul style="list-style-type: none"> • Make sure that there is a clear line of accountability between national goals, ambitions or targets and regional systems. 	
Local	<ul style="list-style-type: none"> • Local authorities and NHS bodies should co-ordinate on identifying and implementing priorities for their areas, being clear how these relate to national goals. • Ensure that accountability goes beyond public health teams and health and care services, to join up with those responsible for wider determinants of health. 	<ul style="list-style-type: none"> • Ensure greater clarity on and stronger accountability for population health outcomes. • Draw up locally led priorities and actions, with clarity on their relationship to national goals. 	



Funding and funding mechanisms

Table A5

	Now	Within 3 years	Within 5–10 years
National	<ul style="list-style-type: none"> Use the forthcoming Spending Review to restore public health grants to local authorities to at least 2015/16 levels (at least £690 million) and to move to multi-year settlements. Review the impact of cuts to wider local government funding on population health, for example by commissioning analysis of the effects of existing cuts, their likely longer-term impacts, and testing the likely impact of planned cuts. The NHS long-term plan should make it clear that prevention is a core part of the role of NHS organisations and invest resources accordingly. 	<ul style="list-style-type: none"> Assess how much local authority funding is required for population health (including but by no means limited to public health grants). This should begin with the forthcoming spending review. Trial new funding mechanisms for prevention, such as a prevention transformation fund. Make more use of ‘sin taxes’ and fiscal incentives to reduce health risks, building on the lessons from the soft drinks industry levy. 	<ul style="list-style-type: none"> Ensure the required levels of local authority funding for population health. Implement successful mechanisms for funding prevention nationally.
Regional	<ul style="list-style-type: none"> Local authorities and NHS bodies should ensure that they are making full use of the tools available to target their spending on population health to effective interventions. 		
Local	<ul style="list-style-type: none"> Local authorities and NHS bodies should ensure that they are making full use of the tools available to target their spending on population health to effective interventions. 		



References

Acheson D (1998). *Independent inquiry into inequalities in health: a review of health inequalities in England and recommendations on how to reduce them*. Available at www.gov.uk/government/publications/independent-inquiry-into-inequalities-in-health-report (accessed on 1 November 2018).

Agyemang C, van Hooijdonk C, Wendel-Vos W, Lindeman E, Stronks K and Droomers E (2007). 'The association of neighbourhood psychosocial stressors and self-rated health in Amsterdam, The Netherlands'. *Journal of Epidemiology and Community Health* vol 61, no 12, pp 1042–49

Aiden H (2018). *Multimorbidity: understanding the challenge*. London: Richmond Group of Charities. Available at: <https://richmondgroupofcharities.org.uk/> (accessed on 15 October 2018).

Alderwick H, Ham C, Buck D (2015). *Population health systems: going beyond integrated care*. London: The King's Fund. Available at www.kingsfund.org.uk/publications/population-health-systems (accessed on 24 October 2018)

Appleby J (2018). 'Investing in prevention to demonstrate value: valuing prevention and its impact on wider system sustainability'. Conference presentation on Public Health England Annual Conference 2018 website. Available at: www.phe-events.org.uk/hpa/frontend/reg/tAgendaWebsite.csp?pageID=306413&ef_sel_menu=2936&eventID=727&mode= (accessed on 24 October 2018).

Ardern K (2016). 'Wigan public services seminar: making health everyone's business'. Local Government Association website. Available at: www.local.gov.uk/search/all/wigan (accessed on 24 October 2018).

Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B (2012). 'Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study'. *The Lancet*, vol 380, no 9836, pp 37–43.

Barr B, Bambra C, Whitehead M (2014). 'The impact of NHS resource allocation policy on health inequalities in England 2001–11: longitudinal ecological study'. *British Medical Journal* (online). Available from www.bmj.com/content/348/bmj.g3231 (accessed 1 November 2018).

Barr B, Higgerson J, Whitehead M (2017). 'Investigating the impact of the English health inequalities strategy: time trend analysis'. *British Medical Journal*, no 358, p j3310. Available at: www.bmj.com/content/358/bmj.j3310 (accessed on 21 October 2018).



Barr B, Taylor-Robinson D, Whitehead M (2012). 'The impact of health inequalities on rising prosperity in England, 1999–2008, and the implications for performance incentives. A longitudinal ecological study'. *British Medical Journal*. Available from www.bmj.com/content/345/bmj.e7831 (accessed 1 November 2018).

Baylis A, Buck D, Anderson J, Jabbal J, Ross S (2017). *The future of HIV services in England: shaping the response to changing needs*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/future-hiv-services-england (accessed on 16 October 2018).

Belot M, James J, Nolen P (2016). 'Incentives and children's dietary choices: a field experiment in primary schools'. *Journal of Health Economics*, vol 50, pp 213–29.

Bentley C (2008). *Systematically addressing health inequalities* [online]. GOV.UK website. Available at: http://webarchive.nationalarchives.gov.uk/20130123194756/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_086570 (accessed on 15 October 2018).

Benzeval M, Bond L, Campbell M, Egan M, Lorenc T, Petticrew M, Popham F (2014). *How does money influence health?* [online]. Joseph Rowntree Foundation website. Available at: www.jrf.org.uk/report/how-does-money-influence-health (accessed on 15 October 2018).

Booske BC, Athens JK, Kindig DA, Park H, Remington PL (2010). *Different perspectives for assigning weights to determinants of health*. Madison, WI: University of Wisconsin, Population Health Institute. Available at: www.countyhealthrankings.org/sites/default/files/different-PerspectivesForAssigningWeightsToDeterminantsOfHealth.pdf (accessed on 15 October 2018).

British Medical Association (2018). 'Public Health England needs stronger voice, MPs insist'. News release. British Medical Association website. Available at: www.bma.org.uk/news/2014/february/public-health-england-needs-stronger-voice-mps-insist (accessed on 21 October 2018).

Buck D (2018a). 'Health inequalities: the NHS plan needs to take more responsibility'. Blog. Available at: www.kingsfund.org.uk/blog/2018/09/health-inequalities-nhs-plan-needs-take-more-responsibility (accessed on 20 October 2018).

Buck D (2018b). 'Second's out, round two: Is the government's latest childhood obesity plan a knockout?' Blog. Available at: www.kingsfund.org.uk/blog/2018/06/second-childhood-obesity-plan (accessed on 20 November 2018).

Buck D (2013). 'Why we need to strengthen local authorities' accountability for public health outcomes'. Blog. Available at: www.kingsfund.org.uk/blog/2013/01/why-we-need-strengthen-local-authorities-accountability-public-health-outcomes (accessed on 16 October 2018).

Buck D, Frosini F (2012). *Clustering of unhealthy behaviours over time: implications for policy and practice*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/clustering-unhealthy-behaviours-over-time (accessed on 16 October 2018).



Buck D, Gregory S (2018). *Housing and health: opportunities for sustainability and transformation partnerships* [online]. The King's Fund website. Available at: www.kingsfund.org.uk/publications/housing-and-health (accessed on 15 October 2018).

Buck D, Gregory S (2013). *Improving the public's health*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/improving-publics-health (accessed on 15 October 2018).

Buck D, Jabbal J (2014). *Tackling poverty: making more of the NHS in England* [online]. The King's Fund website. Available at: www.kingsfund.org.uk/publications/articles/tackling-poverty (accessed on 16 October 2018).

Buck D, Maguire D (2015). *Inequalities in life expectancy: changes over time and implications for policy*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/inequalities-life-expectancy (accessed on 12 October 2018).

Buck D, Ross S, Simpson M (2016). *The economics of housing and health: the role of housing associations*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/economics-housing-health (accessed on 24 October 2018).

Buck D, Wenzel L (2018). 'Communities and health'. The King's Fund website. Available at: www.kingsfund.org.uk/publications/communities-and-health (accessed on 16 October 2018).

Bunker JP, Frazier HS, Mosteller F (1995). 'The role of medical care in determining health: creating an inventory of benefits' in Amick III BC, Levine S, Tarlov AR, Chapman Walsh D (eds), *Society and health*, pp 305–41. New York, NY: Oxford University Press.

Burgess K (2013). 'Going Dutch on cycling "could cut £1.6bn a year from health budget"'. *The Times*, 13 June. Available at: www.thetimes.co.uk/article/going-dutch-on-cycling-could-cut-pound16bn-a-year-from-health-budget-tx758g39f93 (accessed on 15 October 2018).

Burnham A (2018). 'Place-based integration and whole person support: the Greater Manchester model'. Speech at Manchester Central, 10 October. Available at: www.greatermanchester-ca.gov.uk/downloads/file/915/place-based_integration_and_whole_person_support_the_greater_manchester_model (accessed on 18 October 2018).

Burstow P, Newbigging K, Tew J, Costello B (2018). *Investing in a resilient generation: Keys to a mentally prosperous nation*. Birmingham: University of Birmingham. Available at: www.birmingham.ac.uk/research/impact/policy-commissions/mental-health/index.aspx (accessed on 24 October 2018).

Canadian Institute of Advanced Research, Health Canada, Population and Public Health Branch. AB/NWT 2002. Quoted in Kuznetsova D (2012). *Healthy places: councils leading on public health*. London: New Local Government Network.



Capewell S and O’Flaherty M (2011). ‘Rapid mortality falls after risk-factor changes in populations.’ *Lancet* vol 378, no 9793, pp 752–53. Available at [www.thelancet.com/journals/lancet/article/PIIS0140-6736\(10\)62302-1/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)62302-1/fulltext) (accessed 1 November 2018).

Centre for Mental Health (undated). ‘Equally Well UK’. Centre for Mental Health website. Available at: www.centreformentalhealth.org.uk/campaigns/equally-well (accessed on 19 October 2018).

Charles A, Ham C, Baird B, Bennett L (2018a). *Reimagining community services: making the most of our assets*. London: The King’s Fund. Available at: www.kingsfund.org.uk/publications/community-services-assets (accessed on 16 October 2018).

Charles A, Wenzel L, Kershaw M, Ham C, Walsh N (2018b). *A year of integrated care systems: reviewing the journey so far*. London: The King’s Fund. Available at: www.kingsfund.org.uk/publications/year-integrated-care-systems (accessed on 16 October 2018).

Cheshire West and Chester (undated). ‘Budget consultation’. Cheshire West and Chester website. Available at: www.cheshirewestandchester.gov.uk/your-council/consultations-and-petitions/Budget-consultation.aspx (accessed on 18 October 2018).

Chesney E, Goodwin G, Fazer S (2014). ‘Risks of all-cause and suicide mortality in mental disorders: a meta-review’. *World Psychiatry* vol 13, no 2, pp 153–60. Available at: <https://onlinelibrary.wiley.com/doi/full/10.1002/wps.20128> (accessed on 24 October 2018).

Citizens Advice (2015). *A very general practice: how much time do GPs spend on issues other than health?* London: Citizens Advice. Available at: www.citizensadvice.org.uk/about-us/policy/policy-research-topics/health-and-care-policy-research/public-services-policy-research/a-very-general-practice-how-much-time-do-gps-spend-on-issues-other-than-health/ (accessed on 15 October 2018).

Collins B (2018). *The Montefiore health system in New York: a case study*. London: The King’s Fund. Available at: www.kingsfund.org.uk/publications/montefiore-health-system-case-study (accessed on 29 October 2018).

Corlett A, Clarke S, D’Arcy C, Wood J (2018). *The living standards audit 2018*. London: The Resolution Foundation. Available at: www.resolutionfoundation.org/publications/the-living-standards-audit-2018/ (accessed on 24 October 2018).

Cutler D, Lleras-Muney A (2006). *Education and health: evaluating theories and evidence* [online]. SSRN website. Available at: <https://papers.ssrn.com/abstract=913315> (accessed on 15 October 2018).



Cylus J, Permanand G, Smith PC (2018). *Making the economic case for investing in health systems: what is the evidence that health systems advance economic and fiscal objectives?* [online]. World Health Organization website. Available at: www.euro.who.int/en/about-us/partners/observatory/publications/policy-briefs-and-summaries/making-the-economic-case-for-investing-in-health-systems-.what-is-the-evidence-that-health-systems-advance-economic-and-fiscal-objectives (accessed on 16 October 2018).

Dayan M, Ward D, Gardner T, Kelly E (2018). *The NHS at 70: how good is the NHS?* [online]. The King's Fund website. Available at: www.kingsfund.org.uk/publications/nhs-70-how-good-is-the-nhs (accessed on 11 October 2018).

Deaton A (2013). *The great escape: health, wealth, and the origins of inequality*. Princeton, NJ: Princeton University Press.

Department for Business, Energy & Industrial Strategy (2018). 'The Grand Challenge missions'. GOV.UK website. Available at: www.gov.uk/government/publications/industrial-strategy-the-grand-challenges/missions (accessed on 16 October 2018).

Department of Health (2017). *Towards a smoke-free generation: a tobacco control plan for England*. GOV.UK website. Available at: www.gov.uk/government/publications/towards-a-smoke-free-generation-tobacco-control-plan-for-england (accessed on 29 October 2018).

Department of Health (2009). *Tackling health inequalities: 10 years on a review of developments in tackling health inequalities in England over the last 10 years*. Available at <http://dera.ioe.ac.uk/11036/> (accessed on 1 November 2018).

Department of Health (2008). *Tackling health inequalities: 2007 status report on the Programme for Action* [online]. GOV.UK website. Available at: http://webarchive.nationalarchives.gov.uk/20130123193251/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_083471 (accessed on 21 October 2018).

Department of Health (2003). *Tackling health inequalities: A Programme for Action*. Cm 6374. London: The Stationery Office. Available at: http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4008268 (accessed on 16 October 2018).

Department of Health (1992). *The health of the nation: a strategy for health in England*. Cm 1986. London: HMSO.

Department of Health and Social Care (2018). *Prevention is better than cure: our vision to help you live well for longer*. Available at www.gov.uk/government/publications/prevention-is-better-than-cure-our-vision-to-help-you-live-well-for-longer (accessed on 5 November 2018).



Department of Health and Social Security (1980). *Inequalities in health: report of a research working group* [online]. Socialist Health Association website. Available at: www.sochealth.co.uk/national-health-service/public-health-and-wellbeing/poverty-and-inequality/the-black-report-1980/ (accessed on 16 October 2018).

Evans H (2018). 'Does the public see tax rises as the answer to NHS funding pressures?' The King's Fund website. Available at www.kingsfund.org.uk/publications/does-public-see-tax-rises-answer-nhs-funding-pressures (accessed on 24 October 2018).

Fell G (2017). 'The role of directors of public health in STPs: 5 thoughts.' Blog. Available at: <https://gregfellpublichealth.wordpress.com/2017/07/15/the-role-of-directors-of-public-health-in-stp-5-thoughts/> (accessed on 29 October 2018).

Finch D, Bibby J, Elwell-Sutton T (2018). *Taking our health for granted: Plugging the public health funding gap*. London: The Health Foundation. Available at: www.health.org.uk/sites/default/files/upload/publications/2018/Taking%20our%20health%20for%20granted_for%20web.pdf (accessed on 22 October 2018)

Flores M, Rivas J (2016). 'Cash incentives and unhealthy food consumption'. *Bulletin of Economic Research*, vol 69, no 1, pp 42–56. Available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/boer.12085> (accessed on 16 October 2018).

Full Fact (2017). 'How many NHS employees are there?'. Full Fact website. Available at: <https://fullfact.org/health/how-many-nhs-employees-are-there/> (accessed on 16 October 2018).

Government Office for Science and Department of Health (2007). *Reducing obesity: future choices*. GOV.UK website. Available at: www.gov.uk/government/publications/reducing-obesity-future-choices (accessed on 29 October 2018).

Greater Manchester Health and Social Care Partnership (2018). *The Greater Manchester population health plan 2017–2021* [online]. Greater Manchester Health and Social Care Partnership website. Available at: www.gmhsc.org.uk/wp-content/uploads/2018/04/GM-Population-Health-Plan-Full-Plan.pdf (accessed on 21 October 2018).

Greenfield P, Marsh S (2018). 'Deaths of UK homeless people more than double in five years'. *The Guardian* website. Available at: www.theguardian.com/society/2018/apr/11/deaths-of-uk-homeless-people-more-than-double-in-five-years (accessed on 24 October 2018).

Griffith R, O'Connell M, Smith K (2017a). 'Fixing the UK's alcohol taxes'. Institute of Alcohol Studies website. Available at: www.ias.org.uk/Blog/Fixing-the-UKs-alcohol-taxes.aspx (accessed on 16 October 2018).

Griffith R, O'Connell M, Smith K (2017b). *Tax design in the alcohol market* [online]. Institute for Fiscal Studies website. Available at: www.ifs.org.uk/publications/10239 (accessed on 16 October 2018).



Guerin B, McCrae J, Shephard M (2018). *Accountability in modern government: recommendations for change*. London: Institute for Government. Available online at www.instituteforgovernment.org.uk/publications/accountability-modern-government-recommendations (accessed on 24 October 2018)

Guy's and St Thomas' Charity (2018). *From one to many: exploring people's progression to multiple long-term conditions in an urban environment* [online]. Guy's and St Thomas' Charity website. Available at: www.gsttcharity.org.uk/what-we-do/our-programmes/multiple-long-term-conditions/one-many-exploring-peoples-progression (accessed on 19 October 2018).

Ham C (2018). 'A progress report on integrated care systems'. Blog. Available at: www.kingsfund.org.uk/blog/2018/03/progress-report-integrated-care-systems (accessed on 15 October 2018).

Ham C, Alderwick H (2015). *Place-based systems of care: a way forward for the NHS in England*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/place-based-systems-care (accessed on 16 October 2018).

Ham C, Charles A, Wellings D (2018). 'Shared responsibility for health: the culture change we need'. The King's Fund website. Available at: www.kingsfund.org.uk/sharedresponsibility (accessed on 23 November 2018).

Ham C, Curry N (2010). *Clinical and service integration: the route to improved outcomes*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/clinical-and-service-integration (accessed on 16 October 2018).

Ham C, Dixon A, Brooke B (2012). *Transforming the delivery of health and social care: the case for fundamental change*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/transforming-delivery-health-and-social-care (accessed on 16 October 2018).

Ham C, Murray R (2018). 'The NHS 10-year plan: how should the extra funding be spent?'. The King's Fund website. Available at: www.kingsfund.org.uk/publications/nhs-10-year-plan (accessed on 21 October 2018).

Health Careers (undated). 'Health careers'. Health Careers website. Available at: www.healthcareers.nhs.uk/working-health/working-public-health/public-health-workforce-explained/ (accessed on 21 October 2018).

Hendriksen IJM, Simons M, Garre FG, Hildebrandt VH (2010). 'The association between commuter cycling and sickness absence'. *Preventive Medicine*, vol 51, no 2, pp 132–5.

HM Government (2012). *Health and Social Care Act 2012 (c 7)*. London: The Stationery Office. Available at: www.legislation.gov.uk/ukpga/2012/7/contents/enacted (accessed on 21 October 2018).



HM Government (2010). *Healthy lives, healthy people: our strategy for public health in England*. Cm 7985. London: The Stationery Office. Available at: www.gov.uk/government/publications/healthy-lives-healthy-people-our-strategy-for-public-health-in-england (accessed on 20 October 2018).

HM Government (2000). *2000 Spending Review: public service agreements July 2000*. Cm 4808. London: The Stationery Office. Available at: <http://webarchive.nationalarchives.gov.uk/20121013052506/http://archive.treasury.gov.uk/sr2000/psa/psa.pdf> (accessed on 19 October 2018).

HM Treasury and Greater Manchester Combined Authority (undated). *Greater Manchester Agreement: devolution to the GMCA & transition to a directly elected mayor* [online]. GOV.UK website. Available at: www.gov.uk/government/publications/devolution-to-the-greater-manchester-combined-authority-and-transition-to-a-directly-elected-mayor (accessed on 21 October 2018).

Holt-Lunstad J, Smith TB, Layton JB (2010). 'Social relationships and mortality risk: a meta-analytic review'. *PLOS Medicine*, vol 7, no 7, p e1000316.

House of Commons Draft Local Audit Bill ad-hoc Committee (2013). *Draft Local Audit Bill: pre-legislative scrutiny: report of session 2012–2013* [online]. HC 696. London: The Stationery Office. Available at: www.parliament.uk/business/committees/committees-a-z/commons-select/draft-local-audit-bill-ad-hoc-committee/ (accessed on 21 October 2018).

House of Commons Health Committee (2016). *Public health post-2013: second report of session 2016–17*. HC 140. London: House of Commons. Available at: www.parliament.uk/business/committees/committees-a-z/commons-select/health-committee/inquiries/parliament-2015/public-health-post-2013-inquiry-15-16/ (accessed on 19 October 2018).

House of Commons Health Committee (2014). *Public Health England: eighth report of session 2013–14*. HC 840. London: The Stationery Office. Available at: www.parliament.uk/business/committees/committees-a-z/commons-select/health-and-social-care-committee/publications/ (accessed on 21 October 2018).

Hunter D, Marks L, Smith K (2010). *The public health system in England*. Bristol: Policy Press.

Hunter D, Visram S, Finn R, Gosling J, Forrest A (2018). *Evaluating the leadership role of health and wellbeing boards as drivers of health improvement and integrated care across England* [online]. Newcastle University website. Available at: <https://research.ncl.ac.uk/davidhunter/currentresearchprojects/evaluatingtheroleofhealthwellbeing/> (accessed on 16 October 2018).



Johnson P, Kelly E, Lee T, Stoye G, Zaranko B, Charlesworth A, Firth Z, Gershlick B, Watt T (2018). *Securing the future: funding health and social care to the 2030s* [online]. Institute for Fiscal Studies website. Available at: www.ifs.org.uk/publications/12994 (accessed on 15 October 2018).

Kershaw M, McKenna H, Charles A, Ewbank L, Ham C (2018). *Sustainability and transformation partnerships in London: an independent review* [online]. The King's Fund website. Available at: www.kingsfund.org.uk/publications/sustainability-transformation-partnerships-london (accessed on 21 October 2018).

Kim E, Hawes A, Smith J (2014). 'Perceived neighbourhood social cohesion and myocardial infarction'. *Journal of Epidemiology and Community Health*, vol 68, no 11, pp 1020–26. Available at: <https://jech.bmj.com/content/68/11/1020> (accessed on 24 October 2018).

Kindig D, Stoddart G (2003). 'What is population health?'. *American Journal of Public Health*, vol 93, no 3, pp 380–3. Available at: <https://ajph.aphapublications.org/doi/10.2105/AJPH.93.3.380> (accessed on 15 November 2018).

Knox A (2018). 'How can community involvement reduce health inequalities?'. Blog. Available at: www.kingsfund.org.uk/blog/2018/09/how-can-community-involvement-reduce-health-inequalities (accessed on 16 October 2018).

Kontopantelis E, Buchan I, Webb Roger T, Ashcroft Darren M, Mamas Mamas A, Doran, T (2018). 'Disparities in mortality among 25–44-year-olds in England: a longitudinal, population-based study'. Online First article. Available at [www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(18\)30177-4/fulltext#%20](http://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(18)30177-4/fulltext#%20) (accessed on 1 November 2018).

Local Government Association (2018). 'Participatory budgeting'. Local Government Association website. Available at: www.local.gov.uk/topics/devolution/engaging-citizens-devolution/approaches-civic-and-democratic-engagement-0 (accessed on 18 October 2018).

Local Government Association (2017). *The power of place: health and wellbeing boards in 2017* [online]. Local Government Association website. Available at: www.local.gov.uk/our-support/our-improvement-offer/care-and-health-improvement/health-and-wellbeing-systems/research (accessed on 18 October 2018).

Local Government Association (2016). 'Tower Hamlets, "You Decide!"'. Local Government Association website. Available at: www.local.gov.uk/tower-hamlets-you-decide (accessed on 16 October 2018).

Local Government Association (2015). 'Beyond fighting fires: the role of the fire and rescue service in improving the public's health'. Local Government Association website. Available at: www.local.gov.uk/beyond-fighting-fires-role-fire-and-rescue-service-improving-publics-health-0 (accessed on 24 October 2018).



Local Government Association (undated). 'Public health, prevention and early intervention support'. Local Government Association website. Available at: www.local.gov.uk/our-support/our-improvement-offer/care-and-health-improvement/public (accessed on 19 October 2018).

Marmot M, Goldblatt P, Allen J (2010). *Fair society, healthy lives: the Marmot review* [online]. Institute of Health Equity website. Available at: www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review (accessed on 16 October 2018).

Masters R, Anwar E, Collins B, Cookson R, Capewell S (2017). 'Return on investment of public health interventions: a systematic review'. *Journal of Epidemiology and Community Health*, vol 71, no 8, pp 827–34.

Mayor of London (2018). 'Health Inequalities Strategy'. Mayor of London and London Assembly website. Available at: www.london.gov.uk/what-we-do/health/health-inequalities-strategy (accessed on 16 October 2018).

McDaid D, Sassi F, Merkur S (2017). *Promoting health, preventing disease: the economic case (2015)* [online]. World Health Organization website. Available at: www.euro.who.int/en/publications/abstracts/promoting-health,-preventing-disease-the-economic-case-2015 (accessed on 16 October 2018).

McGinnis JM, Williams-Russo P, Knickman JR (2002). 'The case for more active policy attention to health promotion'. *Health Affairs*, vol 21, no 2, pp 78–93.

McGovern L, Miller G, Hughes-Cromwick P (2014). 'The relative contribution of multiple determinants to health outcomes'. Robert Wood Johnson Foundation website. Available at: www.rwjf.org/en/library/research/2014/08/the-relative-contribution-of-multiple-determinants-to-health-out.html (accessed on 24 October 2018).

Mullainathan S, Shafir E (2013). *Scarcity*. New York, NY: Times Books. Available at: www.penguin.co.uk/books/178585/scarcity/9780141049199.html (accessed on 15 October 2018).

Munford LA, Sidaway M, Blakemore A, Sutton M, Bower P (2017). 'Associations of participation in community assets with health-related quality of life and healthcare usage: a cross-sectional study of older people in the community'. *BMJ Open*, vol 7, no 2, p e012374.

Murray R (2018a). 'What to do about the UK's obesity problem?' Prospect website. Available at: www.prospectmagazine.co.uk/life/what-to-do-about-the-uks-obesity-problem (accessed on 14 October 2018).

Murray R (2018b). *Hypothecated funding for health and social care: How might it work?* London: The King's Fund. Available at: www.kingsfund.org.uk/publications/hypothecated-funding-health-and-social-care (accessed on 24 October 2018)



National Audit Office (2018a). *Financial sustainability of local authorities 2018* [online]. National Audit Office website. Available at: www.nao.org.uk/report/financial-sustainability-of-local-authorities-2018/ (accessed on 18 October 2018).

National Audit Office (2018b). *Rolling out universal credit*. London: NAO. Available at: www.nao.org.uk/report/rolling-out-universal-credit/# (accessed on 24 October 2018).

National Audit Office (2010). *Tackling inequalities in life expectancy in areas with the worst health and deprivation*. London: The Stationery Office. Available at: www.nao.org.uk/report/tackling-inequalities-in-life-expectancy-in-areas-with-the-worst-health-and-deprivation/ (accessed on 1 November 2018).

National Institute for Health and Care Excellence (2015). *Excess winter deaths and illness and the health risks associated with cold homes* [online]. National Institute for Health and Care Excellence website. Available at: www.nice.org.uk/guidance/ng6/chapter/3-Context (accessed on 15 October 2018).

Naylor C, Buck D (2018). *The role of cities in improving population health: international insights* [online]. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/cities-population-health (accessed on 16 October 2018).

NHS Confederation (2017). *Local Growth Academy*. NHS Confederation website. Available at: www.nhsconfed.org/localgrowthacademy (accessed on 16 October 2018).

NHS Digital (2016). *Adult Psychiatric Morbidity Survey: survey of mental health and wellbeing, England, 2014* [online]. NHS Digital website. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/adult-psychiatric-morbidity-survey/adult-psychiatric-morbidity-survey-survey-of-mental-health-and-wellbeing-england-2014> (accessed on 16 October 2018).

NHS England (2017). *Sustainability and transformation partnerships progress dashboard* [online]. NHS England website. Available at: www.england.nhs.uk/publication/sustainability-and-transformation-partnerships-progress-dashboard-baseline-view/ (accessed on 14 November 2018).

NHS England, Care Quality Commission, Health Education England, Monitor, NHS Trust Development Authority, Public Health England (2014). *NHS five year forward view* [online]. NHS England website. Available at: www.england.nhs.uk/publication/nhs-five-year-forward-view/ (accessed on 11 October 2018).

NHS Health Scotland (2018a). 'Income inequality'. NHS Health Scotland website. Available at: www.healthscotland.scot/health-inequalities/fundamental-causes/income-inequality/income/ (accessed on 16 October 2018).



NHS Health Scotland (2018b). 'The right to health'. NHS Health Scotland website. Available at: www.healthscotland.scot/health-inequalities/the-right-to-health/ (accessed on 16 October 2018).

Noble DJ, Greenhalgh T, Casalino LP (2014). 'Improving population health one person at a time? Accountable care organisations: perceptions of population health—a qualitative interview study'. *BMJ Open*, vol 4, no 4, p e004665. Available at: <https://bmjopen.bmj.com/content/4/4/e004665> (accessed 15 November 2018).

Office for National Statistics (2018a). *Changing trends in mortality: an international comparison: 2000 to 2016* [online]. Office for National Statistics website. Available at: www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/changing-trends-in-mortality-an-international-comparison/2000-to-2016 (accessed on 11 October 2018).

Office for National Statistics (2018b). *Changing trends in mortality in England and Wales: 1990 to 2017 (experimental statistics)* [online], pp 1–24. Office for National Statistics website. Available at: www.ons.gov.uk/releases/changing-trends-in-mortality-in-england-and-wales-1990-to-2017-experimental-statistics (accessed on 20 October 2018).

Office for National Statistics (2018c). *National life tables, UK: 2015 to 2017* [online]. Office for National Statistics website. Available at: www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/bulletins/national-life-tables-united-kingdom/2015-to-2017 (accessed on 11 October 2018).

Office for National Statistics (2018d) 'Socioeconomic inequalities in avoidable mortality, England and Wales: 2001 to 2016'. Office for National Statistics website. Available at: www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/articles/measuring-socio-economic-inequalities-in-avoidable-mortality-in-england-and-wales/2001-to-2016 (accessed on 18 November 2018).

Office for National Statistics (2018e) 'Changing trends in mortality: a cross-UK comparison, 1981 to 2016'. Office for National Statistics website. Available at: www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/changing-trends-in-mortality-across-uk-comparison-1981-to-2016 (accessed on 18 November 2018).

Office for National Statistics (2015). 'How has life expectancy changed over time?'. Office for National Statistics website. Available at: www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/how-has-life-expectancy-changed-over-time/2015-09-09 (accessed on 11 October 2018).

Organisation for Economic Co-operation and Development (2017). *Health at a Glance 2017: OECD indicators*. Paris: OECD Publishing. Available at: www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance_19991312;jsessionid=54tksaichubk4.x-oecd-live-02 (accessed on 22 October 2018).



Pearce M (2018). 'Coventry: a Marmot City'. Coventry City Council website. Available at: www.coventry.gov.uk/info/176/policy/2457/coventry_a_marmot_city/1 (accessed on 18 October 2018).

Plotkin L (2018). *Prevention Transformation Fund for local authorities* [online]. Faculty of Public Health website. Available at: www.fph.org.uk/policy-campaigns/campaigns/public-health-funding/prevention-transformation-fund-for-local-authorities/ (accessed on 19 October 2018).

Power A, Davies J, Kjellstrom T, Plant P (2010). *Built Environment Task Group report* [online]. Institute of Health Equity website. Available at: www.instituteofhealthequity.org/resources-reports/built-environment-task-group-report (accessed on 15 October 2018).

Public Health England (2018a). *Health profile for England: 2018* [online]. Public Health England website. Available at: www.gov.uk/government/publications/health-profile-for-england-2018 (accessed on 1 November 2018).

Public Health England (2018b). *Local authority health profiles* [online]. Public Health England website. Available at: https://fingertips.phe.org.uk/profile/health-profiles/area-search-results/E09000033?place_name=Westminster&search_type=parent-area (accessed on 12 October 2018).

Public Health England (2017a). 'Chapter 3: trends in morbidity and behavioural risk factors'. GOV.UK website. Available at: www.gov.uk/government/publications/health-profile-for-england/chapter-3-trends-in-morbidity-and-behavioural-risk-factors (accessed on 15 October 2018).

Public Health England (2017b). 'Prevention Concordat for Better Mental Health'. GOV.UK website. Available at: www.gov.uk/government/collections/prevention-concordat-for-better-mental-health (accessed on 20 October 2018).

Public Health England (2017c). *Psychosocial pathways and health outcomes* [online]. GOV.UK website. Available at: www.gov.uk/government/publications/psychosocial-pathways-and-health-outcomes (accessed on 15 October 2018).

Public Health England (2016). *Burden of Disease Study for England* [online]. GOV.UK website. Available at: www.gov.uk/government/publications/burden-of-disease-study-for-england (accessed on 11 October 2018).

Public Health England (2015a). *Health matters: smoking and quitting in England*. GOV.UK website. Available at: www.gov.uk/government/publications/health-matters-smoking-and-quitting-in-england/smoking-and-quitting-in-england (accessed on 24 October 2018).

Public Health England (2015b). *A guide to community-centred approaches for health and wellbeing* [online]. GOV.UK website. Available at: www.gov.uk/government/publications/health-and-wellbeing-a-guide-to-community-centred-approaches (accessed on 16 October 2018).



Public Health England, Institute of Health Equity (2015). *Local action on health inequalities: promoting good quality jobs to reduce health inequalities* [online]. Institute of Health Equity website. Available at: www.instituteofhealthequity.org/search?q=local+action+on+health+inequalities (accessed on 15 October 2018).

Public Health Institutes of the World (2017). *Public Health England (PHE): evaluation and recommendations* [online]. GOV.UK website. Available at: www.gov.uk/government/publications/evaluation-and-recommendations-for-phe-ianphi-review (accessed on 19 October 2018).

Raleigh VS (2018). 'Stalling life expectancy in the UK'. *British Medical Journal*, vol 362, p k4050. Available at www.bmj.com/content/362/bmj.k4050 (accessed 15 November 2018).

Rippon S, Hopkins T (2015). *Head, hands and heart: asset-based approaches in health care* [online]. The Health Foundation website. Available at: www.health.org.uk/publication/head-hands-and-heart-asset-based-approaches-health-care (accessed on 16 October 2018).

Rouse J (2017). 'Up the creek with twenty paddles – the drive for economic development and growth'. Blog. Available at: www.gmhsc.org.uk/blogbyjonrouse/ (accessed on 18 October 2018).

Royal College of Paediatrics and Child Health (2018). *Child health in England in 2030: comparisons with other wealthy countries* [online]. Royal College of Paediatrics and Child Health website. Available at: www.rcpch.ac.uk/resources/child-health-england-2030-comparisons-other-wealthy-countries (accessed on 16 October 2018).

Royal College of Physicians, Royal College of Paediatrics and Child Health (2016). *Every breath we take: the lifelong impact of air pollution* [online]. Royal College of Physicians website. Available at: www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution (accessed on 18 October 2018).

Royal Society for Public Health (2015). *Re-thinking the public health workforce*. Royal Society for Public Health website. Available at: www.rsph.org.uk/our-work/policy/wider-public-health-workforce/rethinking-the-public-health-workforce.html (accessed on 24 October 2018).

Royal Society for Public Health (undated). *Collaboration for prevention: a case study on evaluating the Community Safety Hub model in North Yorkshire* [online]. Royal Society for Public Health website. Available at: www.rsph.org.uk/uploads/assets/uploaded/e6ad2957-699c-4c51-8a1ff39ca3cb2c38.pdf (accessed on 21 October 2018).

RSA (2017). *Inclusive Growth Commission* [online]. RSA website. Available at: www.thersa.org/action-and-research/rsa-projects/public-services-and-communities-folder/inclusive-growth-commission (accessed on 16 October 2018).

Scottish Government (2018). *Scotland's public health priorities* [online]. Scottish Government website. Available at: <https://beta.gov.scot/publications/scotlands-public-health-priorities/> (accessed on 18 October 2018).



Scottish Government (2012). 'Minimum unit pricing'. Scottish Government website. Available at: www.gov.scot/Topics/Health/Services/Alcohol/minimum-pricing (accessed on 16 October 2018).

Scottish Government (2005). *National Programme for Improving Mental Health and Well-being: Addressing mental health inequalities in Scotland*. Edinburgh: Scottish Government. Available at www.gov.scot/Publications/2005/11/04145113/51151 (accessed on 22 October 2018)

Shared Future (2017). *Central Blackpool health and wellbeing inquiry report* [online]. Shared Future website. Available at: <https://sharedfuturecic.org.uk/report/central-blackpool-health-wellbeing-inquiry-report/> (accessed on 16 October 2018).

South J, Jones R, Stansfield J and Bagnall A M (2018). *What quantitative and qualitative methods have been developed to measure health-related community resilience at a national and local level?* Copenhagen: WHO Regional Office for Europe; 2018 (Health Evidence Network (HEN) synthesis report 60). Available at www.euro.who.int/__data/assets/pdf_file/0003/382971/hen-60-eng.pdf?ua=1 (accessed on 5 November 2018).

South Liverpool Citizens Advice and Liverpool Clinical Commissioning Group (2017). *Case study: advice on prescription* [online]. National Suicide Prevention Alliance website. Available at: www.nspa.org.uk/resources/adopt-a-block-tackling-social-isolation/ (accessed on 21 October 2017).

Steel N, Ford J, Newton J, Davis A, Vos T, Naghavi M (2018). 'Changes in health in the countries of the UK and 150 English local authority areas 1990-2026: a systematic analysis for the global burden of disease study 2016'. The Lancet website. Available at: [www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)32207-4/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)32207-4/fulltext) (accessed on 31 October 2018).

Steffens NK, Cruwys T, Haslam C, Jetten J, Haslam SA (2016). 'Social group memberships in retirement are associated with reduced risk of premature death: evidence from a longitudinal cohort study'. *BMJ Open*, vol 6, no 2, p e010164.

Stott J (2017). 'What is inclusive growth and why does it matter?'. Blog. Available at: www.jrf.org.uk/blog/what-inclusive-growth-and-why-does-it-matter (accessed on 16 October 2018).

Stoye G (2017). *UK health spending* [online]. Institute for Fiscal Studies website. Available at: www.ifs.org.uk/publications/9186 (accessed on 16 October 2018).

Tauchmann H, Göhlmann S, Requate T, Schmidt C (2008). *Tobacco and alcohol: complements or substitutes? A structural model approach*. IZA Discussion Paper No. 3412. Bonn: IZA. Available at www.iza.org/publications/dp?term=tobacco+and+alcohol (accessed on 22 October 2018).

The Children's Society (2018). *The good childhood report 2018* [online]. The Children's Society website. Available at: www.childrenssociety.org.uk/what-we-do/resources-and-publications/the-good-childhood-report-2018 (accessed on 15 October 2018).



The Health Foundation (2018). 'The NHS as an anchor'. The Health Foundation website. Available at: www.health.org.uk/newsletter/nhs-anchor (accessed on 16 October 2018).

The Health Foundation (2010). *Complex adaptive systems* [online]. The Health Foundation website. Available at: www.health.org.uk/publication/complex-adaptive-systems (accessed on 16 October 2018).

The King's Fund (2018). 'The King's Fund responds to Prime Minister's announcement of new funding for the NHS'. Press release. Available at: www.kingsfund.org.uk/press/press-releases/response-prime-minister-new-funding-nhs (accessed on 21 October 2018).

The King's Fund (2016). 'Embracing population health management'. The King's Fund website. Available at: www.kingsfund.org.uk/about-us/corporate-partners/philips-population-health (accessed on 16 October 2018).

The King's Fund (2013). 'Broader determinants of health: future trends'. The King's Fund website. Available at: www.kingsfund.org.uk/projects/time-think-differently/trends-broader-determinants-health (accessed on 15 October 2018).

The King's Fund (undated). 'Integrated care: our work on joined-up health and care services'. The King's Fund website. Available at: www.kingsfund.org.uk/topics/integrated-care (accessed on 15 October 2018).

Thrive LDN (undated). 'Thriving communities'. Thrive LDN website. Available at: www.thriveIdn.co.uk/current-projects/thriving-communities/ (accessed on 16 October 2018).

Timmins N (2017). *The five giants: a biography of the welfare state*. London: William Collins.

Triggle N (2018). 'Soft drink sugar tax starts, but will it work?'. BBC News, 6 April. Available at: www.bbc.com/news/health-43659124 (accessed on 16 October 2018).

Waddell G, Burton AK (2006). *Is work good for your health and well-being?* London: The Stationery Office. Available at: www.gov.uk/government/publications/is-work-good-for-your-health-and-well-being (accessed on 15 October 2018).

Waters T (2017). 'Distributional analysis'. Institute for Fiscal Studies website. Available at: www.ifs.org.uk/publications/8990 (accessed on 24 October 2018).

Weaver, M (2018). 'Public Health England backs review of alcohol charity's guidance'. *The Guardian*. Available at: www.theguardian.com/society/2018/sep/21/public-health-england-review-drinkaware-website-guidance (accessed on 5 November 2018).

Well North (undated). 'Well North' (website). Available at: www.wellnorth.co.uk/ (accessed on 5 November 2018).



Welsh Government (2018). 'Minimum price for alcohol Bill approved'. Welsh Government website. Available at: <https://gov.wales/newsroom/health-and-social-services/2018/mup-bill/?lang=en> (accessed on 16 October 2018).

Welsh Government (2017). *Public Health (Wales) Act 2017* (c 2, part 6). London: The Stationery Office. Available at: www.legislation.gov.uk/anaw/2017/2/part/6/enacted (accessed on 21 October 2018).

Welsh Government (2015). *Well-being of Future Generations (Wales) Act 2015* (c 2). London: The Stationery Office.

Wentworth J, Clarke C (2016). *Green space and health* [online]. Parliament UK website. Available at: <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/POST-PN-0538> (accessed on 18 October 2018).

Wickham S, Anwar E, Barr B, Law C, Taylor-Robinson D (2016). 'Poverty and child health in the UK: using evidence for action'. *Archives of Disease in Childhood*. Available at: <https://adc.bmj.com/content/archdischild/early/2016/02/08/archdischild-2014-306746.full.pdf> (accessed on 20 October 2018).

Wigan Council (2018). 'The Deal'. Wigan Council website. Available at: www.wigan.gov.uk/council/the-deal/index.aspx (accessed on 16 October 2018).

World Health Organization (2018a). 'About Health 2020'. World Health Organization website. Available at: www.euro.who.int/en/health-topics/health-policy/health-2020-the-european-policy-for-health-and-well-being/about-health-2020 (accessed on 16 October 2018).

World Health Organization (2018b). 'Public health services'. World Health Organization website. Available at: www.euro.who.int/en/health-topics/Health-systems/public-health-services (accessed on 16 October 2018).

World Health Organization (2017). *Governance for health equity* [online]. World Health Organization website. Available at: www.euro.who.int/en/publications/abstracts/governance-for-health-equity (accessed on 16 October 2018).

World Health Organization (2016). *Fiscal policies for diet and prevention of noncommunicable diseases* [online]. World Health Organization website. Available at: www.who.int/dietphysicalactivity/publications/fiscal-policies-diet-prevention/en/ (accessed on 21 October 2018).

World Health Organization (2001). *Public health management: meeting report* [online]. World Health Organization website. Available at: www.who.int/chp/knowledge/publications/ph_management_report/en/ (accessed on 19 October 2018).



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The King's Fund is an independent charity working to improve health and care in England. We help to shape policy and practice through research and analysis; develop individuals, teams and organisations; promote understanding of the health and social care system; and bring people together to learn, share knowledge and debate. Our vision is that the best possible health and care is available to all.

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Over the past century, overall health has improved greatly, and we are living longer and healthier lives. How can we make sure these improvements continue? England is behind other similar countries on many key health indicators, with obesity rates among the highest in Western Europe. Inequalities in health are widening, resulting in some people living shorter lives in poorer health.

A vision for population health presents an overarching approach to improving mental and physical health, promoting wellbeing and reducing health inequalities across England. It has four 'pillars':

- the wider determinants of health, such as income, education, housing and leisure
- our health behaviours and lifestyles, including smoking, drinking alcohol, exercise and diet
- an integrated health and social care system, reflecting growing needs for complex and longer-term care
- the role of places and communities, including local environment and social relationships.

Our research finds that efforts across these four areas are not well balanced. We argue also that we should make better connections between the different pillars. This report includes examples of how to do this and provides recommendations on what needs to change.

We recommend action at local, regional and national levels, and in three key areas:

- **stronger leadership** for population health, with key roles for political leaders such as elected mayors
- **clarity of roles and accountability**, especially at national level concerning NHS England and Public Health England
- **funding and funding mechanisms**, for example through the restoration of public health funding, support for preventive services and bold use of taxation.

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