



Prevention is better than cure

Our vision to help you live well for longer

05 November 2018

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Ministerial foreword

The Rt Hon Matt Hancock MP, Secretary of State for Health and Social Care

We have made great progress in improving the health of the nation - helping people to live longer lives. However, people are spending too many years in poor health, with these gains in health not felt equally across society. But this is not inevitable; much of ill health could be prevented. Prevention is crucial to improving the health of the whole population, and helping secure the health and social care services we all value and rely on. It will also boost the health of our economy.

When I became Secretary of State for Health and Social Care, I made prevention one of my early priorities for the NHS and social care. This vision document sets out areas where we need action, and how prevention can help us meet the Ageing Society Grand Challenge Mission - which was set out by the Prime Minister earlier this year as part of our ambitious Industrial Strategy. This Mission is 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.

I am delighted that with the long-term funding settlement for the NHS, there will be an extra £20.5 billion a year by the end of the next five years. This is the single largest cash injection for the NHS ever, giving us a unique opportunity to radically change the focus of health and social care onto prevention.

We cannot continue to invest in the same service models of the past. We will not meet our mission with 'business as usual'. This vision sets out that greater focus, and spending, is needed on prevention, not just cure. With an ageing society and people living with multiple complex conditions it is imperative that this rebalancing happens - to keeping people well, living in the community, and out of hospital for longer. This means services which target the root causes of poor health and promote the health of the whole individual, not just treating single acute illnesses. In practice this requires greater funding for pre-primary, primary and community care - and support for the staff who work in these services.

Prevention cannot be solved purely by the health and social care system alone. Everyone has a part to play, and we must work together across society. This includes recognising the responsibilities of individuals and families in reducing the chances of becoming unwell in the first place, but also how the wider environment we live in determines our health.

Right across government, I want us to be working with all those who have a role in influencing health: communities, employers, industry, local government, housing, schools and charities. Setting out this vision is just the beginning - much more needs to be done to make it a reality. In the first half of next year, the Government will therefore work with stakeholders to publish a Green Paper on prevention to set out our plans in more detail.

A brief history of prevention

Past

This country has a rich history of preventing ill health, and has led the way globally. Edward Jenner developed the first smallpox vaccine in 1796. The link between contaminated water and cholera was identified using data analytics in England in 1854. Penicillin was discovered by Sir Alexander Fleming in 1928. British scientists led the medical science and built the evidence base to establish the link between smoking and cancer during the 1950s. In 2007 it became illegal in England to smoke in enclosed public spaces. In 2015 we became one of the first countries to introduce a national publicly-funded vaccination programme to protect children against meningitis type B.

Present

Today, we remain at the cutting edge of prevention. We are already global leaders in the work to unlock the potential of genomic medicine, and scientific advances that could see life-threatening viral outbreaks stopped before they start. Meanwhile, advances in artificial intelligence (AI) are helping staff to diagnose and treat conditions quicker and more effectively, giving more time for patient care. We are testing new ways of providing people with preventative advice, using cutting edge technology often called 'predictive prevention'. Innovations like these provide exciting opportunities for the future of health and social care - offering earlier diagnosis and more targeted treatments, supporting self-management of conditions, making health and social care more convenient, and joining up data across services securely to deliver better and more personalised care.

Future

Despite these strengths, significant challenges remain. We need the whole nation to focus on the future: rising levels of obesity, mental illness, age-related conditions like dementia, and a growing, ageing and diversifying population, often living with multiple, long-term conditions such as diabetes, asthma and arthritis. Securing our nation's health requires a significant and sustained effort to prevent illness and support good physical and mental health. We need to see a greater investment in prevention - to support people to live longer, healthier and more independent lives, and help to guarantee our health and social care services for the long-term.

Executive summary

This document sets out a vision for putting prevention at the heart of our nation's health. Our mission is to improve healthy life expectancy so that, by 2035, we are enjoying at least five extra years of healthy, independent life, whilst closing the gap between the richest and poorest.

Action is required across Government as well as in the NHS in order to give greater priority to prevention and to tackle the wider determinants of health and wellbeing.

(The King's Fund, 2014)

Prevention is about helping people stay healthy, happy and independent for as long as possible. This means reducing the chances of problems from arising in the first place and, when they do, supporting people to manage them as effectively as possible. Prevention is as important at seventy years old as it is at age seven.

Chapter one sets out why prevention matters, and the case for change. Our health is our most important asset, we must protect and nourish it. Whilst we have made great progress in helping people live longer lives, too many of these extra years are spent in poor health. We are now living with more complex illnesses for longer, and significant health inequalities still exist. Yet this is not inevitable. Much of this ill health could be prevented.

Chapter two describes the Government's vision for preventing problems from arising in the first place. This covers everyday decisions people have personal responsibility for, for example around what we eat and drink, how active we are and how much we sleep, as well as wider actions to improve our mental health. But these decisions are not made in isolation; they are also shaped by our early experiences, the environment around us and by the services we receive. The NHS and local authorities need to put prevention at the heart of everything they do: tackling the root causes of poor health, not just treating the symptoms, and providing targeted services for those most at risk. Action is needed to empower people to make healthier choices, to harness modern technology, and to address the broader conditions that lead to health and social care needs in the first place.

Chapter three sets out the prevention vision for those already living with a health or social care need, and how they can live well for longer. The health and social care system has an important role to play in terms of: (i) picking up problems earlier; (ii) stopping them from getting worse by providing the right care in the community, and putting more people in control of their health; and (iii) supporting the whole person - across mental and physical health - not just treating symptoms. Living well in the community also involves more than health and social care services. Where we live and work, and the support we get from those around us, makes a big difference to our ability to live well.

When it comes to prevention, we all have a role to play: individuals, families, communities, employers, charities, the NHS, social care, and local and national government. Only by working together can we make this vision a reality.

1. Prevention matters

Prevention creates the right conditions for good health and wellbeing - helping everyone to live well for longer.

What do we mean by prevention?

Prevention is about helping people stay healthy, happy and independent for as long as possible. This objective is as relevant at seventy years old as it is at age seven.

Prevention means stopping problems from arising in the first place; focusing on keeping people healthy, not just treating them when they become ill. And if they do, it means supporting them to manage their health earlier and more effectively.

This means giving people the knowledge, skills and confidence to take full control of their lives and their health and social care, and making healthy choices as easy as possible.

We know that prevention works. A review of international studies suggests that past investments in prevention have had a significant long-term social return on investment. Around £14 of social benefit for every £1 spent across a broad range of areas.¹

Our health is one of our nation's most precious and important assets - we must protect and nourish it

Our health is more than just a statistic; it matters because:

- **We all want longer, healthier, more independent lives** - for ourselves, our families and our friends. Good physical and mental health is central to our happiness. It enables us to engage fully in community life, and with the things that matter most.
- **A healthy nation is vital for a strong economy** - boosting employment and productivity. Ill health amongst working-age people alone costs the economy around £100 billion a year.² We need to do better if we are to maintain our success on the global stage.
- **Better health reduces the pressures on the NHS, social care, and other public services**, including crime, justice and welfare. Pressure on GPs, hospitals and social care services is growing year on year. Last year, there were almost 24 million attendances to A&E, up 22% over the past nine years.³ Today, we are spending almost 10% of our national income on healthcare.⁴ We need to focus on prevention to slow the growth in demands on the NHS - making it sustainable for future generations.

Our vision to protect and promote the health of the nation

Earlier this year, the Prime Minister set a Mission, as part of our Industrial Strategy's [Ageing Society Grand Challenge](#), 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.

Life expectancy for a child born today is 81 years.⁵ Most of these years should be spent in good health, but, statistically, around 18 years on average may be spent in bad.⁶ To achieve this Mission of five extra healthy, independent years, we need to support everybody to live well for longer, and must particularly focus our efforts on those who are currently experiencing the worst outcomes and need the most help.

This Mission is just as important for people who are already unwell, or live with a disability, physical or mental health condition, or care need. This is because people can continue to live active, fulfilling and independent lives if they have the right support. Not all conditions can be cured, but with the right support we may be able to change people's experience; and help them continue doing the things that matter most.

We have made great progress in helping people to live longer, healthier lives

Most of us are now living longer.⁷ A child born today has a one in four chance of living to the age of 100.⁸ This is due to:

- **Advances in health care**, including new medicines, drugs, tests and treatments, allow us to diagnose and treat more diseases than ever, and do so in better and safer ways. For example, almost one million adults access psychological therapies for treating anxiety disorders and depression each year,⁹ and last year in England there were over 41 million imaging tests, including x-rays and CT scans.¹⁰
- **Changing attitudes**, in part due to campaigns like Time to Change, Dementia Friends, and Be Clear on Cancer, have increased awareness, reduced stigma and discrimination, and seen more people reaching out for treatment and support.
- **Improvements in the environment** in which we grow up, live and work - from sanitation to nutrition, housing standards to safety at work, mean we are less at risk from physical, emotional, and environmental harm.
- **Antibiotics and mass vaccination** have substantially reduced the harm of many infectious diseases.¹¹ For example, vaccinations against polio have reduced the

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number of cases from over 7,000 cases in 1950 to zero in 2017. For diphtheria, over 50,000 cases in 1941 were reduced to five.¹²

- **Healthy lifestyles and public health programmes** have led to widespread improvements. For example, millions now benefit from NHS health checks, and from 1990 to 2017, rates of smoking in England fell from 29% to just under 15%.^{13,14}

As a result of these improvements, we are now 80% less likely to die from cardiovascular disease, such heart disease or stroke, than we were in 1948.¹⁵ Cancer survival rates have also been steadily increasing in recent years. Between 2000 and 2015, one-year survival for all cancers combined increased by almost 20%, and for lung cancer by almost 60%.¹⁶

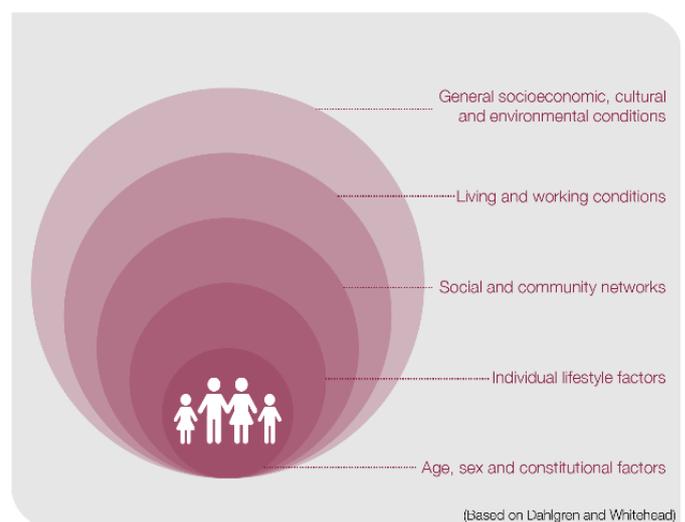
But not all these extra years are spent in good health

Around 20% of our lives are spent in poor health,¹⁷ and evidence from across several countries in Europe and North America suggests that the past gains in life expectancy may be becoming harder to achieve.¹⁸ We are now living with more complex illnesses for longer. This trend is set to continue as the proportion of those aged 65 and over with four or more diseases is set to double by 2035, with around a third of these people having a mental health problem.¹⁹

Despite government efforts to reduce avoidable differences in health between population groups, there are still health inequalities across the country. A boy born today in the most deprived area of England can expect to live about 19 fewer years in good health and die nine years earlier than a boy born into the least deprived area.²⁰ People with severe mental health illness tend to die 15-20 years earlier than those without.²¹

Ill health is preventable in many cases; we must focus on the main causes

Some diseases - such as those we are born with or inherit through our genes - cannot currently be prevented. Traumatic experiences in childhood can have a lasting impact on our mental health. But many causes of ill health are preventable. In total, over half of the attributed burden of poor health and early death can be linked to factors (behavioural, social and environmental) that we can change before they lead to diseases that need medical treatment or lead to need for social care.²²



The nation's health is partly the result of the quality of the health or social care we receive. It also depends on the social and economic environment in which we are born, grow up, live, work and age - as well as the decisions we make for ourselves and our families. Most experts agree these are more important than health and social care in ensuring longer, healthier lives.²³ With this in mind, as well as improving our health and social care services, we also need to make substantial improvements in:

Healthy lifestyles

We can make choices to reduce our chances of getting conditions such as cancer, dementia, heart disease, depression and lung problems.²⁴ But healthy choices are not always easy or obvious. Healthy foods are harder to buy in some areas, and often more expensive. Someone living in an area where most people smoke will find it harder to give up than someone who sees few people smoking. There is a role for government to create the environment that makes healthy choices as easy as possible, and to address the conditions that lead to poor health. This could be through laws, regulations and incentives.

We have a range of challenges to overcome, including:

- **Smoking is still too prevalent.** While rates are falling, over six million adults still smoke.²⁵ This leads to preventable deaths, stark inequalities in health outcomes, 485,000 hospital admissions, and research suggests a cost of £2.5 billion a year to the NHS and £760 million to local authority-funded home social care.²⁶ As the number one cause of ill health and early death,²⁷ smoking cessation is a major priority.
- **We have one of the highest childhood obesity rates in Western Europe,**²⁸ and in 2016 over a quarter of adults in England were obese.²⁹ Obesity-related conditions are estimated to cost the NHS around £6 billion a year, and £27 billion in total costs to wider society.³⁰ This is influenced by what we eat, and our levels of physical activity. Action here has other benefits, beyond obesity. For example, the amount of excess salt people eat has an impact on the risk of dying early through heart disease.³¹
- **Over ten million adults in England drink levels of alcohol that put their health at risk** - linked to problems such as heart and liver disease, depression and physical violence. Of these, over 0.5 million (1.4% of the adult population) are dependent on alcohol.³² Alcohol contributes to over a million hospital admissions a year.³³
- **There are other behavioural factors that can negatively impact on our mental and physical health**, such as insufficient sleep,³⁴ over-use of screen time,³⁵ and cyber-bullying linked to social media.³⁶

Prevention must be at the heart of efforts to improve the nation's mental health, and mental health must be at the heart of prevention.

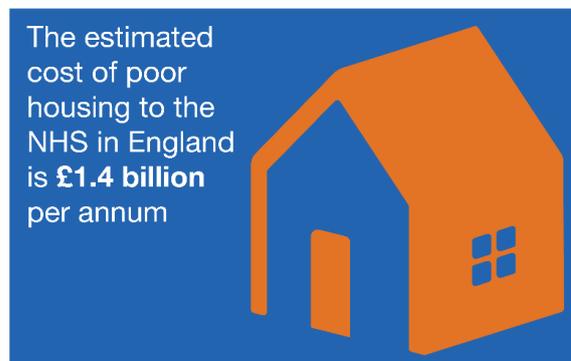
(Paul Farmer, Mind, 2018)

However, we know that our health is also shaped by our environment.

The homes and neighbourhoods we live in

The health and wellbeing of people who experience homelessness is poorer than that of the general population. Badly maintained homes - and poor living conditions - can also have a negative impact on mental and physical health.³⁷ For example:

- There is a clear link between damp, mould and asthma, and rotting floorboards and poorly lit properties can increase the risk of a trip or fall.
- Overcrowded homes – with children sleeping in the living room or sharing a bedroom with a parent – can also harm family relationships, and impact on mental health.



Our mental and physical health is also shaped by the neighbourhoods we live in, including access to green space, community safety and cycling or walking routes.³⁸

Air pollution poses one of the biggest environmental threats. It can worsen asthma and affect lung functioning; leading to complications and unnecessary admissions to hospital. This is particularly the case for frail older people, and young children.³⁹ [According to modelling by Public Health England](#), if we reduce air pollution, over the next two decades we could prevent: 50,000 cases of heart disease, 16,500 strokes, 9,000 cases of asthma and 4,000 lung cancers.⁴⁰

The jobs we do

We know that being in work is generally good for our health.⁴¹ In addition to the health benefits associated with an adequate wage, work and volunteering can also give us a sense of purpose, build self-esteem and provide the opportunity to build relationships. On the other hand, being out of work is associated with a range of poor health outcomes; with a person's health deteriorating more the longer they are out of work.

- Even though the current employment rate is high - with three in four adults in work - there are still ten million adults not in work.⁴² Many of these people could and would like to work, and are missing out on the economic and health benefits of employment.
- Being out of work does not just affect working-age people. Children growing up in workless households are almost twice as likely not to reach expected education attainment levels compared with children growing up in working families.⁴³

Our friends, family and other social connections

Social connections are important. When people feel lonely most or all of the time, it can cause serious harm. The health impacts are thought to be on par with other pressures like obesity or smoking.⁴⁴ Research shows that loneliness is associated with increased risk of depression, low self-esteem, sleep problems and higher stress levels.⁴⁵

We all have a part to play

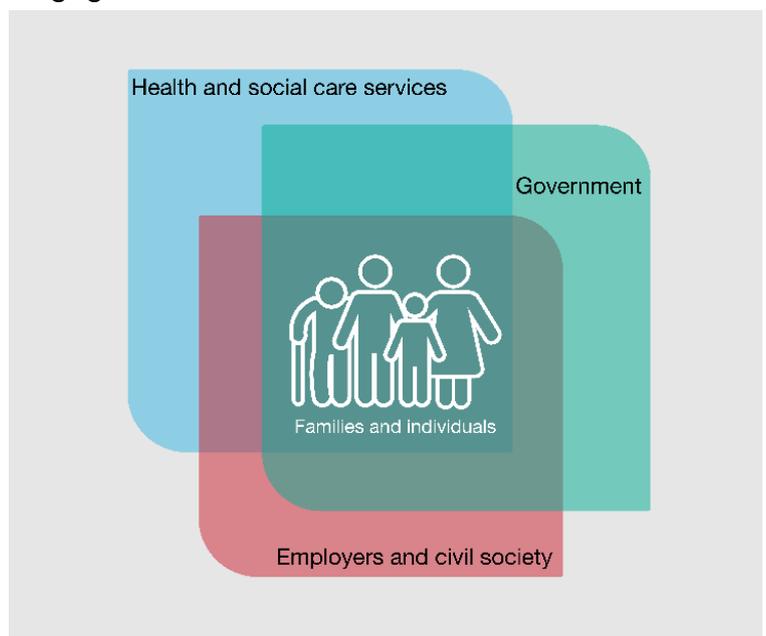
As our population ages and diversifies, it is inevitable that we will require substantial investment in our health and social care services. The Government has therefore set out plans for the NHS to receive an extra £20.5 billion a year by the end of 2023-24 - but money alone is not enough.⁴⁶

This funding must be well spent; with the health and social care system working in an integrated way across physical and mental health, social care, housing and with local authorities to focus on the root causes of poor health. This means our health and social care services must do more to prioritise prevention, with a greater focus on community care, mental health, pre-primary and primary care. Technology has a significant role to play in helping people to live healthier, more independent lives. It also allows us to target support far better to those that need it most.

We also need to see more collaboration so that individuals, health and social care services, and national and local governments work together, alongside communities and employers, to remove barriers to healthy lives.

The following chapters set out this vision for enabling people to live well for longer and how this is only possible if society is fully engaged to:

- help everyone prevent problems from arising (Chapter 2), and
- support people to manage problems earlier and more effectively (Chapter 3).



2. Preventing problems in the first place

Not all health problems can be prevented. But for those that can, we need to give people the knowledge, skills and confidence - as well as the opportunities - to live healthier lifestyles, and make healthy choices as easy as possible.

Living well starts with individuals and families. Prevention is for everyone - at every stage of life

Decisions we take every day can help us improve our health. These could be small choices, such as choosing a low sugar drink or minimising screen time before bed, to the broader decisions we take: where we live or where we work.

There are also the larger healthy lifestyle choices that reduce our chances of becoming unwell. These include: not smoking,

eating a good diet, being physically active, reducing our alcohol intake, not taking illegal drugs, and taking care of our mental health.⁴⁷



These decisions can impact on our health, and also on the health of others; especially our children. This ranges from the meals we prepare for our families, the exercise we encourage children to take, ensuring that they receive the vaccinations they need, and creating the right home environment to nurture them and strengthen their resilience.

We are also influenced by the world around us: by our friends and family, the articles we read, the adverts we see, the food available in our shops, where we live and by our workplaces. Government recognises these factors relate to other aspects of our lives, and has therefore given local authorities the lead responsibility for improving health locally.

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Of course, our choices go beyond physical health. Small improvements in wellbeing can help reduce mental health problems. Evidence suggests that there are a few simple things we can do to improve our personal wellbeing. These are known as [The Five Ways to Wellbeing](#).⁴⁸ These improvements in mental health can help with physical health, and vice versa.



The Future of Healthcare: our vision for digital, data and technology

In October 2018, the Department published its [vision for digital, data and technology in health and social care](#). A core pillar of the strategy is to empower citizens to manage their own health, so that they can stay well and prevent problems from arising in the first place.

Last year, over 20 million people used the NHS website. Over the next ten years, digital services will become even more widespread, and the first point of contact for many. The management of health will move out of clinical settings, and into the hands of people. Devices and applications will provide guidance and support around the clock.

To reach this potential, we need to get the basics right: personal data security, the digital architecture of the health and social care system, open data standards, secure identity services, and improved interoperability. This will allow people to use their personal health data for prevention, as well as enabling developers to build products and services that meet the needs of users. The aim is to become a global leader in health technology, and to create a thriving ecosystem of innovation.

Health and social care services need to fundamentally change to tackle the causes of poor health, and not just the symptoms

The health and social care system provides high quality care to millions of people every year. We are regarded by some international experts as having one of the best healthcare systems in the world.⁴⁹ This is mirrored in the pride we all have in our health and social care staff, and their efforts to help us live healthier, more independent lives.

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-leading science, the delivery of specialist public health services, and preparing for, and responding to, emergencies. It also provides government, local government, the NHS, Parliament, industry and the public with evidence-based professional scientific and delivery expertise and support.

Prevention is crucial to the work of the NHS. But, for too long the health and social care system has talked about the need to refocus its energy away from treating illness and towards preventing illness, without this translating into practical action. This is despite the changing nature of disease putting ever growing pressure on our services and the staff who work in them;⁵⁰ the [strong evidence showing that prevention and early intervention represents very good value for money](#) (improving health, reducing demand for public services and supporting economic growth);⁵¹ and the widespread support for a prevention-first approach from health and social care professionals, think tanks, and commentators.

For example, whilst there has been important focus in some areas, such as our world-leading vaccines programmes, this has not always been echoed elsewhere:

- In the UK, we spend 60% of public funding for healthcare on cure and rehabilitation, and only 5% on prevention. This means we are spending £97 billion a year on treating diseases, and only £8 billion on preventing them.⁵²
- The NHS England's Five Year Forward View (2014) and General Practice Forward View (2016) have both developed and taken forward actions and investment to enable a greater focus on primary and community services. Now is the time to build on this and make 'prevention is better than cure' a reality in all parts of the country.

The NHS must shift the rhetoric to reality and make genuine progress on refocusing the system towards preventative care.

(Lords Committee on the Long Term Sustainability of the NHS, 2017)

We must now move beyond aspiration to ensure that clear practical steps are taken to create health and social care services that have prevention, not cure, at their heart.

Helping to prevent problems in the first place, by:

Realising local authorities' potential as leaders in local health improvement. Local authorities have a deep understanding of their communities, and the Government recognises their achievements in a challenging context.

- **Directors of Public Health play an important leadership role when it comes to local action on prevention, and have responsibilities around the public health grant.** This is often through a 'place-based' approach that includes planning decisions around what to build and where, and other local services.
- **Local expertise allows tailoring of public health services to local need,** to support economic growth, and to influence the wider determinants of health through policies on housing, leisure and other services. This links with local authorities' role in delivering social care and support services, as well as information and advice.

Driving further action from others, including through:

- **Prioritising investment in primary and community healthcare,** where the majority of primary prevention in the health and social care system is likely to occur.
- **Maintaining and evolving our world-renowned vaccination programme,** by further increasing the uptake of currently used vaccines and incorporating new ones, which will positively impact on public health and the NHS.

Using the size and influence of the NHS to improve population health, beyond the treatment it provides.

- **The NHS is a large economic and social presence in many communities.** There is now a growing interest in understanding how it helps shape and influence the wider determinants of health, through its local spending and employment decisions.
- **The NHS can use its influence to tackle air pollution.** For example, the NHS will support mayors and local authorities that propose ultra-low emissions zone charging, in order to cut nitrogen dioxide and small particulate air pollution affecting school playgrounds, GP surgeries and NHS premises. In addition, the NHS is driving forwards plans to convert ambulance fleets to cleaner emissions over the next five years, and will progressively introduce clean emissions standards into supply chain contracts.
- **As one of the largest employers in England, the NHS can also lead the way by improving the health and wellbeing of its staff,** which will also boost productivity.

Case Study: NHS Health and Wellbeing incentive scheme

In 2017, NHS England challenged hospitals to improve the health and wellbeing of their workforce, offering a financial incentive for improving staff survey scores, offering healthy food and drink to staff and visitors, and improving the uptake of flu vaccinations for frontline staff. The NHS is continuing to work with industry partners to build on these achievements and ensure that hospitals lead by example.

Prevention is everyone's business

Prevention is not solely the job of public health experts, social workers and community nurses - everyone working in the health and social care system has a role to play.

Over the course of our lives, our first and most frequent interactions with health and social care services are likely to be with our GP, school nurse, dentist, local pharmacist, social worker, health visitor or midwife. These professionals are in a unique position to influence and guide our lifestyle choices, and to spot when we might need help.

We must also build on the role of the wider workforce. That is, those in early years, fire, housing and leisure services, and in a range of other professions, have a responsibility to embed prevention throughout society. By encouraging professionals in private and public sectors to support the nation's health - and equipping them with the knowledge, skills and confidence they need - we can build a social movement for health.

This goes beyond conversations about people's lifestyles. After all, our health is shaped by the environment in which we live, as well as the decisions we make. So, in partnership with local authorities and employers, we need to be improving all aspects of our lives, across transport, housing, education, employment and the physical environment. We all have a role to play in helping to create a healthier, happier country.

Case Study: Frimley Falls Prevention Service

[There are over 250,000 falls-related admissions per year to hospitals in England among people aged 65 or older.](#)⁵³ Frimley Health Foundation Trust works closely with their local fire service, Hampshire Fire and Rescue, to help prevent this. The fire service identifies vulnerable people during fire safety visits, and then delivers joint falls prevention classes with the Trust. Additionally, a district nursing team is co-located with the fire service. This allows them to better work together to support vulnerable people, and those with complex needs, to live healthy and independent lives.

Services that are targeted and co-ordinated for groups most at risk

As well as working to improve the health of the whole population, health and care services need to find more effective ways to help those in society who are most at risk.

- **On smoking, we risk leaving some vulnerable groups behind.** As overall rates of smoking fall, rates of smoking in pregnancy vary from 2% in West London to 28% in Blackpool.⁵⁴ 40% of adults with a serious mental illness smoke.⁵⁵ In the [Tobacco Control Plan](#), the Government set out its vision to create a smoke-free generation. To do this we need to shift the emphasis from action at the national level to focused, local action. There is good evidence about what needs to be done; we just need to act systematically, and at scale.

Case Study: Ottawa Model of Smoking Cessation

The Ottawa Model for Smoking Cessation was developed in 2002, and has been adopted by over 300 sites across Canada. It works by asking patients if they smoke as they enter hospital. Smokers are then offered 'bedside' help to quit in the form of medication and behavioural support. This is then followed up over a series of phone calls, once they have left hospital. Not only are patients half as likely to have to go back into hospital within a month, they are almost twice as likely to be alive two years on.

- **To transform preventative services for mental ill health, we need better support for those at risk of developing mental health problems.** As part of this endeavour, the Government has committed to increasing access to specialist mental health services to a further 30,000 women during pregnancy and during the first year after they have given birth by 2020/21.⁵⁶
- **We are facing an obesity crisis.** We must continue to support programmes including the NHS Diabetes Prevention Programme which helps identify adults at high risk and refers people to programmes designed to help them change behaviour.
- **High blood pressure is responsible for around 15% of all deaths in England.**⁵⁷ Problems with blood pressure have been reducing over the last decade due to people living healthier lifestyles and programmes like NHS health checks. However, more than five million people still have undiagnosed high blood pressure; and are putting themselves at unnecessary risk of strokes, heart attacks and other episodes.⁵⁸
- **Alcohol is one of the leading causes of ill health and early death.**⁵⁹ The Government remains committed to tackling all alcohol related harm, which is why the Department of Health and Social Care is working with the Home Office to develop a new alcohol strategy.

Making the most of predictive prevention

We want to have the most advanced healthcare system in the world - so as part of our long-term plan for a 21st century health and social care system, the way we view public health must evolve. Moving to the next phase means a more intelligent and personalised approach to improve the health of the nation.

We take it as granted that a modern-day healthcare system can personalise care - so we should expect the same when it comes to prevention and public health.

Predictive prevention will transform public health by harnessing digital technology and personal data - appropriately safeguarded - to prevent people becoming patients. The availability of public data, combined with the existing understanding of wider determinants of health, means we can use digital tools to better identify risks and then help the behaviours of people most in need - before they become patients.

Historically, public health has dealt with populations as a whole - a one-size-fits-all approach. The power of predictive prevention comes from enabling people to look at their health in the context of their own life, their own circumstances, and their own behaviour.

This means moving beyond a simply clinical view of a body system or disease. It means envisioning a world where everyone can understand their own risks, both in their genetic make-up and from their personal behaviour. We will be able to empower people to make positive changes - and not always in ways we have traditionally thought about.

The Government wants to see health and social care exploring digital services that use information (which individuals choose to use) to offer people precise and targeted health advice - specifically designed for their demographic and their location; their lifestyle and their circumstances; their health needs and their health goals.

Targeting interventions this way not only means we can direct specific public health interventions towards those most at risk - it means that those who want it can have preventative care that is relevant to them and more effective than ever before.

The ambition is to prevent people becoming patients - and particularly those hardest to reach - through personalised, ongoing dialogue about their health. Having built this engagement, digital and data can be used to promote changes in behaviours to narrow the gap in health inequalities. This will allow everyone to take greater control and responsibility for their wellbeing and make healthier choices.

What the Government will do: Public Health England will bring together and coordinate a range of experts to build, evaluate and model predictive prevention at scale. A system of agile methods means that projects are tested early, immediately learned from, and implemented at pace.

Respecting privacy and protecting the rights of individuals: this will be a person-centric programme, putting individuals first and founded on the highest standards of data privacy. Where possible, it will go beyond our regulatory requirements to make sure that people's data is used in ways that are consensual, open and transparent - putting consent at the heart of this programme. Emerging technologies like Tim Berners-Lee's Solid project offer new opportunities to use people's data in a responsible, person-centred way.

This framework for predictive prevention will be grounded in informed consent and compliant with the principles of the General Data Protection Regulations, the Data Protection Act 2018 and the work of the National Data Guardian.

Models of predictive prevention for cardiovascular disease

Steve is a 47-year-old service worker. He is a smoker and has generally low levels of physical activity. This puts him at risk of developing cardiovascular disease.

Steve has been engaged to join a prevention programme through a direct message he received on social media following a campaign. Steve is encouraged to record and upload his own data prior to his appointment - including physical activity data, his height and weight, smoking and alcohol use, and stress levels.

He then attends his health check at a convenient location or regular point of care. Here, more data is captured - such as his BMI, blood pressure and cholesterol levels.

By analysing this data, Steve can have his potential health risks identified early and can be directed to a range of relevant and effective interventions. These are related to his cardiovascular health - like smoking cessation services or activity programmes - but he is also invited to consider other relevant interventions, like diabetes prevention.

Steve is also offered support with other issues, like stress, financial instability or loneliness, and encouraged to maintain the positive lifestyle changes he is making.

Action is needed from national and local government to help people make healthier choices

Local government and the NHS have a responsibility to produce a joint assessment of local need. This is delivered through Health and Wellbeing Boards, which bring together leaders from the local health and social care system to improve the health and wellbeing of their population and reduce health inequalities, including for vulnerable groups.

National and local government need to put prevention at the forefront of policies - using laws, regulations and incentives to help people make healthier choices and create the conditions for people living well. This should cover a number of areas, including:

Giving our children the best start in life

Our early experiences help shape lifelong health. The Government is taking further action before and during pregnancy, through childbirth, and throughout childhood, by:

- **Encouraging healthier pregnancies.** Stopping smoking before or during pregnancy is the biggest single factor that will reduce infant mortality, and the Government will continue to work to drive down smoking rates in pregnancy as well as across society.
- **Working to improve language acquisition and reading skills in the early years,** including by supporting parents to help their children's language development at home. Ensuring no child is left behind at the beginning of their school life, given the importance of educational attainment to future life chances.
- **Helping families by taking a whole family approach.** This involves coordinating support for those that need it across a range of important areas, including: mental and physical health, housing, debt and employment. There is clear evidence that exposure to frequent, intense and poorly resolved conflict between parents can have a negative impact on children's early emotional and social development.⁶⁰ As such, the [Reducing Parental Conflict Programme](#) is working with all local areas in England to increase the availability of evidence-based support for families to address parental conflict.
- **Improving dental health in children,** which remains a problem in some communities. Tooth extraction is a significant and unnecessary burden on children.
- **Protecting and improving children's mental health.** Growing up, children face different pressures on their mental health, including from advertising and social media.⁶¹ This means that Government must work together across a number of areas - schools, housing, police, welfare - to ensure that we are doing everything we can.
- **Schools also have an important role to play,** in terms of the food they serve, the opportunities they provide to be active, and how they support children's mental health.

Case Study: Mental Health Support in School

Schools and mental health services are joining up to help young people stay mentally well. At Meads Primary School in Bedfordshire, a mental health clinician is working with the school to provide specialist advice and support to teachers and pupils. In Nottingham, a similar project is underway; with an online and in-house counselling service and self-harm

support team. This has improved the quality of care for pupils, and helped protect their mental health.⁶² The Government looks forward to other schools taking similar action.

For the early years, this action will be supported through a new Early Years and Family Support Ministerial Group; which was established in October 2018 to improve the support available to families from when a child is conceived through to the age of two.

Supporting healthier food and drink choices

- **The Government's ambition on childhood obesity is a bold but simple one: to halve childhood obesity by 2030**, and significantly reduce the gap in obesity between children from the most and least deprived areas. To help get there the Government has: introduced a soft drinks levy (see below) and worked with industry to reformulate products that children eat and drink the most. The Government is currently consulting on its intention to end the sale of energy drinks to children and introduce mandatory calorie labelling for the 'out-of-home sector' (such as restaurants, pubs and cafes); and will be consulting on further measures as announced in chapter 2 of the [Childhood Obesity Plan](#) in 2018.
- **Change4Life is Public Health England's flagship social marketing programme supporting the childhood obesity agenda.** It empowers families with primary school age children to eat well and move more. Over the last ten years, more than four million people have signed up to the programme, and there are over 200 national partners.
- **The Government has also been clear that salt intake needs to reduce.** This is vital for reducing the risk of heart disease. Good progress has already been made with the voluntary salt reduction reformulation programme, which has been successful in driving down population intakes of salt by 11% between 2005 and 2014. However, adults in England are consuming an average of eight grams of salt per day, which is still a third more than the recommended amount.⁶³ A further reduction in average salt intake to six grams per day is [estimated](#) to prevent over 8,000 premature deaths each year and save the NHS over £570 million annually. We will put forward realistic but ambitious goals to bring salt levels down further. By Easter 2019, the Government will set out the details of how this goal will met.

Case Study: Soft Drinks Industry Levy

The [soft drinks industry levy](#) came into force on 6 April 2018 and was designed to encourage industry to reduce the sugar content of soft drinks. It has delivered strong results, with major businesses such as Tesco, Asda and Lucozade Ribena Suntory reducing sugar across their products.⁶⁴

Over half of all drinks that would otherwise have been in scope have reduced their sugar content before the introduction of the levy. That means over 45 million kg of sugar a year being removed from soft drinks through reformulation.⁶⁵ In England, the revenue from the levy is invested in programmes supporting pupil health and wellbeing, including doubling the Primary Physical Education and Sport Premium to £320 million a year; investing £100 million in the healthy pupils capital fund; £26 million in breakfast clubs, and £22 million in an Essential Life Skills programme in the 12 Opportunity Areas.⁶⁶

Getting people more physically active

- **In 2015, the Government published Sporting Future**, which highlighted the importance of physical activity and sport in improving the health of the population. It pledged that government departments would work together to create a more physically active nation. The [strategy](#) sets out that all new facilities investment should be based on the principles of multi-use and co-location with other community facilities.
- **The Government is now developing a cross-government School Sport and Activity Action Plan**, set to be launched in spring 2019. This will use the power of sport and physical activity to support the development of character, resilience and broader life skills in children, as well as improving mental and physical wellbeing.
- **Sport England has committed to spending at least a quarter of its total budget on tackling inactivity**, including investing up to £10 million on projects to help older people get more physically active. They are also investing almost £10 million of government and National Lottery funding in over 100 and physical activity projects that improve mental health outcomes for people.

Case Study: Sport England Investment in Physical Activity to Improve Mental Health

Mind's Get Set to Go programme has supported over 3,500 people with mental health issues to become physically active in their local communities; helping to improve both their mental and physical health as well as building confidence and self-esteem. The programme has also trained over 300 coaches in mental health awareness for physical activity. Sport England has committed to spending at least a quarter of its total budget on tackling physical inactivity, with a particular focus on reaching those who are less likely to be active like those with health conditions or from certain socio-economic groups.

Encouraging active travel

- **The Government is aiming to double the level of cycling by 2025, and to reverse the decline in walking.** [The Cycling and Walking Investment Strategy](#) announced that

£1.2 billion will be available to invest in cycling and walking from 2016-21. Cycling and walking can provide particularly high benefits for physical and mental health as a form of physical activity. Walking and cycling for just ten minutes a day can contribute towards the 150 minutes of physical activity for adults per week.

- **Safety and perceptions of safety can be barriers to people taking up cycling or walking more.** This year, the Government has already: invested more than £7 million to help local authorities improve cycle safety, secured a £1 million sponsorship package from Halfords to get more schoolchildren cycling safely, and shortlisted ten city regions for the next stage of the £1.7 billion Transforming Cities Fund.
- **Earlier this year, the Government published a call for evidence to better understand how to improve safety for people cycling and walking**, which received over 14,000 responses. The Government response will be published in the autumn. This will outline our plans to make to make cycling and walking safer to encourage more people to travel actively and to achieve the associated health benefits.

Reducing levels of loneliness and social isolation

The Government is also committed to tackling loneliness and social isolation at all stages of life. Earlier this year, the Government published the first Loneliness Strategy for England, [A Connected Society](#). This outlines numerous commitments to reduce the risk of loneliness and strengthen social connections, including expanding social prescribing, an employer pledge to support wellbeing at work, and considering loneliness in wider policy-making.

The strategy is an important first step. The Government is committed to long-lasting action to tackle the problem of loneliness.

- **By 2023, the Government will support all local health and social care systems to implement social prescribing connector schemes across the whole country.** Connecting more people with the care and support they need when they are experiencing loneliness, no matter where they live. This will support the Government's aim to have a universal national offer available in GP practices.
- **The Home Office will pilot a scheme working with Royal Mail, private enterprise, local authorities and the local voluntary sector**, to help identify and support older people experiencing loneliness.
- **A cross-government ministerial group will continue to oversee progress** and will publish a report every year on progress, and ministers from a number of departments have had loneliness added to their portfolios.

Our health is also influenced by the environment we live and work in - we all must do more

The workplace

- **The way jobs are designed makes an important difference.** The features of good work include good relationships with colleagues, healthy physical conditions, job security and adequate pay, and skills training with potential for progression. This affects both our physical health (including the time spent sitting down) and our mental health (our sense of control, and levels of stress and anxiety). Advice on debt and benefits is also critical given the important link between income and health.
- **The workplace is also a great setting for reaching people with messages promoting and encouraging healthy lifestyles** - including on smoking, eating healthily and staying active. Many businesses are already taking action in this space, and see the benefits of higher staff morale, and lower rates of sickness absence. In the end, a healthy workforce is a more productive one. More employers should follow suit to help improve the health of their staff and of the nation.

To reduce preventable ill health, the 'causes of the causes' must be addressed - the social, economic and environmental factors that drive our health, including housing, education and employment.

(The Health Foundation, 2016)

Case Study: Rodda's Approach to Workplace Health

Rodda's is a food manufacturer based in Redruth Cornwall, which employs 178 staff and places a big emphasis on health and wellbeing. Initiatives offered by the business include free fruit for all staff, a counselling service, bereavement and legal service, cycle to work scheme, and a staff volunteer scheme. Rodda's is also set to introduce Mental Health First Aiders to all staff to help them understand how to take care of their own mental health and the mental health of others. As a result of their actions, Rodda's have received a Cornwall Healthy Workplace Scheme Gold Standard award for the last ten years, last year receiving the Continued Excellence Award.

The air we breathe

Government is taking action to reduce air pollution from all sources. Air pollution has reduced significantly since 2010 - emissions of toxic nitrogen oxides have fallen by almost 27% and are at their lowest level since records began.⁶⁷ But there is more to do.

- **The Government has put in place a £3.5 billion plan to reduce harmful emissions from road transport.** This includes: nearly £1.5 billion between April 2015 and March

2021 to support the uptake of ultra-low emissions vehicles; £475 million to help local authorities develop and implement local air quality plans; and recent action on medium sized combustion plants.

- **The Government will also end the sale of new conventional diesel and petrol cars and vans by 2040** - the [Road to Zero](#) strategy published by the Department for Transport in July 2018 set out new measures to help achieve the 2040 mission.

The recently published [Clean Air Strategy](#) consultation focused on broader emissions beyond road transport which aims to cut air pollution and save lives. The strategy includes new and ambitious goals, legislation, investment and policies, including:

- **Being the first major economy to set goals working towards World Health Organisation (WHO) recommendations on particulate matter emissions**, going further than the EU requires. This ambition has been commended by the WHO.
- **Taking action on domestic fuel burning**. The Government is introducing nationwide standards to ensure that only the highest quality fuels will be available, and phasing out the sale of wet wood and traditional, smoky house coal. This will prevent 7,000 tonnes of harmful particulate matter from entering the atmosphere each year.
- **For the first time, there is concerted action to tackle ammonia from farming** - which is responsible for 88% of ammonia emissions - by requiring and supporting farmers to invest in the equipment that will reduce emissions.
- **There needs to be a fresh approach to national and local controls**. The Government will shortly bring forward primary legislation on clean air in the Environment Bill. This will give local government the powers to take decisive action in areas with an air pollution problem.
- **The Government is committing £25 million to improve its evidence, modelling, data and analytical tools on air pollution**, and has published new guidance to help local public health professionals take action. The cross-government appraisal methods are being updated so that the latest research on the health effects of air pollution are incorporated into all decisions across government. This will help to push ambitious action on reducing pollution emissions.

Case Study: Government's Clean Air and Cycling and Walking Investment

The Government recently consulted on an ambitious Clean Air Strategy. Securing cleaner air requires action not just from national and local government and industry, but also from individuals. After all, the choices we make about how we travel and heat our homes also impact air quality. For example, encouraging active travel for short journeys has multiple beneficial outcomes: it improves health and wellbeing through increased exercise, and

reduces pollution. The Clean Air Strategy highlights the need to provide clear information about air pollution and health, and the need for helpful advice about active travel options, including facts about pollution levels inside vehicles, and information about the effects of wood burning stoves.

Business, charities and local groups can help us grow and live in safe, well-designed, connected, and healthy neighbourhoods

- **Business are at the cutting edge of innovation, creating new products, technologies and services that can help all of us to live and age well in a positive and active way.** There are already great examples of industry crossing sectors to do this: from Centrica promoting start-up businesses with technology solutions that help meet the needs of an ageing society, to Vodafone's work on smart home technology including detecting falls and sending alerts to family members.⁶⁸
- **The Government is supporting this action through the Ageing Society Grand Challenge of the Industrial Strategy.** Each Grand Challenge is focused on breaking down silos between the public and private sectors, and fostering new forms of collaboration across industry, researchers and academics, civil society and the public. This is based on achieving a common, aspirational goal of five more years of healthy, independent years of life by 2035.
- **Civil society is also essential in supporting people,** especially when events can damage our normal support and trigger ill health - such as family breakdown, bereavement, abuse and violence, or homelessness.

Case Study: Rotherham Social Prescribing Service

[Voluntary Action Rotherham social prescribing service](#) employs five Voluntary and Community Services Advisors to help adults with long-term health problems or mental health issues. Referrals to the service come from GP practices and community health teams that have identified someone who may benefit from more social engagement or support. The advisors assess each person's individual social needs including practical, social and emotional support and produce with that person a 'social prescription' to connect them to community groups and services.

Seven in ten people receiving a social prescription reported feeling less isolated and over half were more active. People also needed less support from health services; one third had fewer visits to accident and emergency wards and 40% had fewer hospital admissions.⁶⁹

3. Living well in the community

When people do have health or care needs, these should be picked up early and managed effectively. This will help people to continue living independently and doing the things that are important to them.

The health and social care system should put prevention at the heart of everything it does

Picking up problems earlier

The sooner health problems are detected and treated, the better. This applies across both mental and physical health. Nowhere is this clearer than with cancer.

- **Cancer is still the leading cause of avoidable death**,⁷⁰ and the UK continues to trail behind some comparable countries such as Canada, Australia, Norway and Denmark when it comes to survival of common cancers including lung, breast and bowel.⁷¹
- **Caught at stage one - when the tumour is small - at least eight in ten people will survive lung cancer for at least one year.** Whereas, at stage four - when the cancer has spread to other parts of the body - one-year survival rates drop to less than two in ten.⁷² Most recent data shows that for the top ten cancers just over half of patients were diagnosed at stages one and two.⁷³
- **In October 2018, the Government announced that, by 2028, 75% of cancers should be diagnosed at stages one and two.** This will have a dramatic effect on survival rates as patients diagnosed early have the best chance of long-term survival.

Case Study: Guy's and St Thomas' NHS Foundation Trust 'Serious but Not-Specific'

One of the difficulties faced by GPs is that many people who have a concern about cancer, present with vague or non-specific symptoms. This makes it difficult to refer on for further investigation. At Guy's and St Thomas' NHS Foundation Trust they now run a daily clinic to pick up these cases. Currently, one in ten cases turn out to be cancer. This means hundreds of patients getting quicker access to the treatment that they need.

In 2016-17, screening identified 460,000 individuals who needed further investigation or essential treatment, the vast majority of whom had no symptoms.⁷⁴

Another key area is mental health. In the [Five Year Forward View for Mental Health](#) (2016) the Government set a number of ambitions, including that by 2020-21:

- At least 70,000 additional children and young people each year will receive evidence-based treatment.
- 95% of children in need of community-based eating disorder services will receive treatment within one week for urgent cases, and four weeks for routine cases.
- There will be increased access to psychological therapies, so at least 25% of people (or 1.5 million) with common mental health conditions can access services each year.

To help tackle the Industrial Strategy's [AI and Data Grand Challenge](#), the Prime Minister announced a Mission to use data, artificial intelligence and innovation to transform the prevention, early diagnosis and treatment of chronic diseases by 2030. In one London hospital, doctors are using technology to diagnose eye conditions quicker and more accurately than traditional methods.

Case Study: Moorfields Eye Hospital

In 2016, [Moorfields and DeepMind](#) put in place a research agreement to train an Artificial Intelligence algorithm to interpret Optical Coherence Tomography (OCT) retina scans.

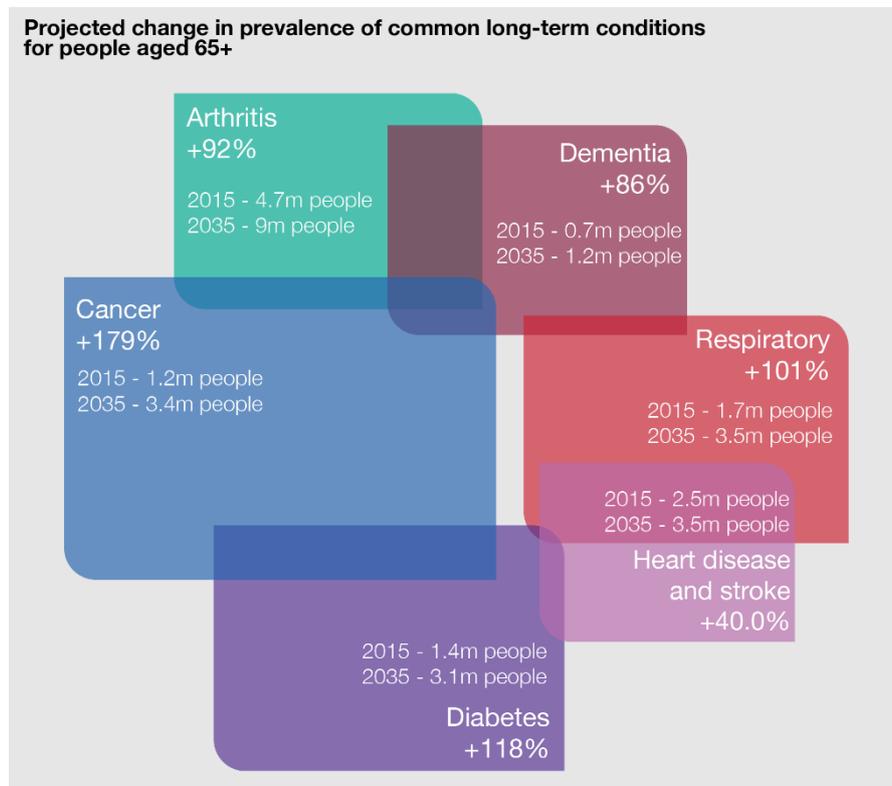
DeepMind's algorithm is designed to find early signs of diseases that can cause sight loss. Traditionally, the interpretation of scans is very labour intensive. Once trained, the algorithm was much faster than clinicians at reaching a decision, and was able to outperform the best clinicians for accuracy.⁷⁵ Whilst final treatment decisions will always be made by a human clinician, AI can significantly improve both the speed and accuracy of this type of diagnostic, freeing up clinicians' time and improving the service to patients. In future, the system could be used to quickly prioritise the most urgent cases, giving better outcomes for patients.

For some people, it can be a challenge to receive a diagnosis at all. Genomics - the study of a person's DNA - has the potential to change this.

- **The 100,000 Genomes Project is already delivering results for NHS patients;** with early indications suggesting that one in four people suffering from a rare disease will receive a diagnosis they would not have previously.
- **In October 2018, the Government announced a bold aspiration to sequence five million genomes in the UK,** within five years.

Stopping problems from getting worse and supporting recovery

People living with long-term health conditions - such as diabetes, asthma, arthritis, as well as mental health problems like depression or anxiety - are now the main users of health and social care services in England.⁷⁶ They generate more than half of all GP and hospital appointments and the majority of spending.⁷⁷ Over the next 15+ years, these conditions will be even more commonplace (see graphic)⁷⁸.



Whilst many long-term conditions cannot be cured, it is possible to live well with them. Unfortunately, not everyone has the support to make this a reality. There is also limited evidence about 'what works' when it comes to managing musculoskeletal and other conditions, despite them being relatively commonplace. This is a problem because:

- **Around 1 in 6 emergency admissions to hospital are due to avoidable complications** arising from a long-term health condition.⁷⁹ Examples include: pneumonia, bladder infections and asthma attacks. For those living with multiple conditions, a diagnosis of severe depression also doubles the risk of ending up at A&E.⁸⁰ Many of these could be avoided through stronger community care.
- **Some people stay in hospital longer than needed** - over 6,000 delayed days per week - due to 'patient awaiting further non-acute care'.⁸¹

In hospitals, cutting-edge technology, human skill and compassion combine to save lives. Yet too often, we fail to provide services in the best way.

- **Our hospital beds are then occupied by people who would be better cared for elsewhere.** This stretches resources and prevents hospitals from focusing their efforts on more urgent or cases; resulting in a poorer overall service for patients. We all have a role to play in supporting this shift: the NHS, government and individuals/families, and civil society.

- **We need to see much greater integration across health, social care and wider public services**, including better information sharing, collaboration and shared decision-making to improve people's health and wellbeing.
- **We need to get better at adapting support to meet the needs of vulnerable groups** - whether sleeping rough, leaving care, offenders out of prison, or young people at risk of serious violence. This requires innovation, partnership, and better information sharing across health and social care, local authorities, and other public services such as schools and prisons. It also involves tackling the root causes of health and social care problems, which often lie outside the NHS.

Case Study: Healthcare in the Criminal Justice System

The Government recognises that law enforcement alone cannot successfully tackle violence and abuse. An effective response needs engagement across health, local government, education, social services, youth offending and probation.

At first contact with the justice system, everyone is assessed at police stations and courts for mental health problems, substance misuse and other vulnerabilities. They may then be diverted into treatment, providing an opportunity for early intervention, referral and support.

The NHS is expanding its mental health services; meaning that today police officers use police cells for people they find in crisis in 95% fewer cases than in 2012. Last year, 16,000 people in crisis were taken by police to mental health services, with officers working with health colleagues to ensure people receive the right care, in the right place.

- **We need to get better at treating the health problems of people living with a severe mental illness**, whose physical health needs tend to be overlooked.

Case Study: Mental Health Outreach in East London

The City and Hackney Primary Care Psychotherapy Consultation Service is an innovative outreach service provided for patients with multiple problems: including mental health, social difficulties, a history of isolation, neglect and trauma. Trained mental health professionals work with GPs to provide psychological therapies and onward referrals. The service has been shown to be cost-effective; improving health outcomes and reducing pressure on both GPs and hospitals. Since the service started in 2009, 75% of all patients using the service showed improvements in mental health, wellbeing and function.⁸²

- **We need to see responsible prescribing of antibiotics across the system**. This will help stop anti-microbial resistance becoming a major problem and infections untreatable.

Primary care is a central part of our vision

Primary care services include: general practice (GPs or family doctors), community pharmacy, dental, and optometry (eye health) services.

To support primary care, we need to see:

- **An expansion of the general practice workforce.** In 2016, the Government committed to growing the general practice workforce by an additional 5,000 doctors and 5,000 other practice staff. Significant progress has been made over the past few years in growing the wider workforce. It is proving more difficult to grow the GP workforce, but is something that the Government remains committed to. For example, there are record numbers of GPs now in training, and these additional new GPs will be crucial for future work on prevention.
- **Retention of experienced GPs.** Many GPs will incur pension tax charges that require them to find sizeable sums of money to pay. To help with this, the NHS Pension Scheme has agreed to extend their 'scheme pays' facility. It will now cover all pension tax charges, including those arising from the tapered annual allowance. This means that, rather than paying upfront, GPs can deduct it (plus interest) from the value of their pension when they retire. These new arrangements will be available from the 2017-18 tax year.
- **GPs working more closely together**, and with other professionals such as pharmacists and community nurses. This could mean working together in the same building, or collaborating virtually, as a network. There are already examples of this across the country. For example, Granta Medical Practices in Cambridgeshire are working as a federation across multiple practices, using multidisciplinary teams that include pharmacists, physiotherapists and GPs. An independent review is currently underway to consider how these models could best support primary care staff, other services and the populations they serve.⁸³ The Government will say more on this soon.

There are a range of suppliers currently developing and testing apps that will help patients connect with their GP practice. Evergreen is one of these apps.

Case Study: Online GP Services - Evergreen

Patients can book appointments, order repeat prescriptions, view their medical records, and receive test results. The app also has additional patient-facing features to help them create a 'personal health record' – including the ability to set medication reminders, store health and fitness information or health-related documents and information. This enables patients to share their information with healthcare professionals, family members or carers.

Evergreen are also testing new functionality with eConsult (an online consultation supplier), so that patients can be triaged and signposted to the most appropriate care. This could mean receiving a return message from the practice, or a suggestion that they book a face-to-face or phone consultation with a healthcare professional in the GP practice. Alternatively, they might be signposted to a more appropriate service, such as a pharmacist or other community health service.

The Government wants to encourage more people to make the most of their local pharmacy, and for local pharmacies to play a stronger role in helping people stay well in the community. There are already almost 10,000 community pharmacies registered as Healthy Living Pharmacies in England.⁸⁴ They deliver a wide range of lifestyle and health interventions, and promote wellbeing and self-care services.

We need to get better at helping people manage their own conditions

There are a number of developments that make this easier than ever:

- **The growth of remote monitoring** - allowing clinicians to view a patient's data in real-time, from a remote location - is already leading to more targeted interventions that help patient whilst also driving efficiencies for clinicians and the system.
- **Technology can enable virtual or video consultations** and, where appropriate, reduce the need for travel and face-to-face appointments.
- **Online communities and social media also allow patients to share experiences and advice.** This is particularly useful for rarer conditions, where the chances of living near to somebody in a similar position are relatively low.

The Department's recent technology vision outlines our ambitions for a truly connected health and social care system, where information can be shared securely.

Case Study: Early Diagnosis of Atrial Fibrillation in Hampshire

Atrial Fibrillation, when the heart beats irregularly, is a risk factor for stroke. Sufferers may notice palpitations but often have no symptoms at all. If picked up and treated early with blood thinners, we can more than halve that risk. Badgerswood Surgery in Hampshire has been working collaboratively with the local hospital, community pharmacies and the Academic Health Science Network (AHSN) to improve patient care and outcomes. The surgery first worked with hospitals to improve how they treat patients, and then piloted a gadget that enables patients to track their own heart rate using a smart phone. By picking up the condition early, and treating it promptly, the Practice has reduced the risk of stroke amongst its patients.

Growing community health is essential to meet future challenges

Community health services include: health visitors, school nurses, sexual health, physiotherapy, occupational therapists, child health services, and speech therapists.

These are commissioned by the NHS and local government, and they have a responsibility to work in partnership with each other to meet the needs of local people.

Long-term conditions are now the main pressure; many of which can be managed in the community, but only if we invest in the right staff and infrastructure.

Staff working in the community - whether in the NHS, in social care, or in integrated teams - play a vital role in helping people stay independent for longer in the community, and improve their quality of life. This can help avoid unnecessary trips to A&E, and allow people to settle back in at home after stays in hospital. To make this a reality, we need:

- **Hospitals to work in even closer partnership with community health services and social care**, working in an integrated way as part of a local network.
- **To recruit and retain more staff working in the community across mental and physical health.** This is a challenge because between September 2012 and 2017, nursing numbers grew by almost 6% in hospitals, and less than 1% in the community.⁸⁵
- **We also need to invest in the right mobile technology to help staff who are working remotely to do their jobs as effectively as possible.** Improvements are also needed to make travel easier; to free-up more time for patient care.
- **To improve the data collected from community providers.** This will help us to understand what services can be delivered and where.

Case Study: Healthier Wigan

The NHS, local authority and other partners in Wigan are working together in the Healthier Wigan Partnership to make health and social care services better for local people.

The Partnership focuses on preventing illness by joining health and social care services together. For example, an integrated discharge team helps patients to be discharged directly home from hospital, rather than into residential care. The service also provides referrals to services that support isolated people to connect with their local community.

Supporting the whole person, not just treating symptoms

The current model of managing multiple, long-term conditions is not best for patients, nor is it sustainable. The barriers to receiving excellent care are well documented and have been covered in various reports. Common problems include: services that deal with single conditions, lack of information sharing between professionals, insufficient regard for people's mental health and wellbeing, and a lack of proper care planning.

For people living with these conditions, their needs and desires are not complicated:

“My care is planned with people who work together to understand me and my carer(s), put me in control, co-ordinate and deliver services to achieve my best outcomes.”

(Individual living with long-term conditions, NHS England. 2017)⁸⁶

We need to see a step-change in how people living with these, often interconnected, conditions are supported by the health and social care system.

- **We need to recognise the importance of geriatricians, GPs, district nurses and other generalists;** who are well placed to see how different needs interact, and to develop a plan for treating the whole person, not just individual conditions.
- **We need to change the mind set from condition management to health creation.** Many professionals already have this mind set. But we all need to focus on people's mental and physical health simultaneously: building treatment plans around outcomes important to individuals, focusing on what people can do and not what they cannot, and complementing traditional approaches with other evidence-based services in the community, including art clubs or sports/walking groups to get people more physically active (often referred to as 'social prescribing').
- **We want to ensure better integration between health and employment support services to help people with health conditions to enter and stay in work.** This means ensuring people receive work-related advice and support within the NHS as part of making work a health outcome; on the basis that good work is good for health.

If you already have a health condition, living a healthy lifestyle is still important.

In fact, living a healthy lifestyle is more important than ever. Healthier decisions can slow down the progression of an illness, reduce the risk of developing additional conditions, and help us manage symptoms. When it comes to prevention, it is never too late to start.

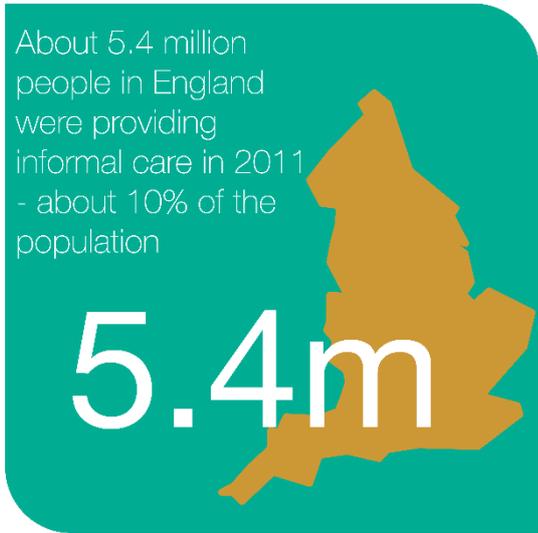
Living well in the community involves more than the healthcare we receive

Where we live, whether and how we work, and the support we get from those around us, also make a difference.

- **The support we get from friends and family can be just as important as the health and social care we receive.** This could be something as simple as help with shopping or walking the dog. Or it could be a higher level of support, such as that provided by the 5.4 million or so informal carers in England who help with things like washing, dressing, cooking and eating.⁸⁷ As the intensity of a caring role increases, the mental and physical health of the person doing that caring often decreases. More support is needed for this important group, as set out in the [Carers Action Plan 2018 to 2020](#).

About 5.4 million people in England were providing informal care in 2011 - about 10% of the population

5.4m



- **The voluntary sector also plays a vital role supporting people without family and friends who can help them, or for those with more specific needs.** These organisations can also help people to live well, and reduce the chance of problems arising in the first place. As a nation we need to be looking more to the strengths and resources of our local communities, as set out in the recent [Civil Society Strategy](#). Rather than treating this support as an afterthought, our health and social care services need to recognise the central importance of the voluntary sector as well as friends and family; and do more to build them into people's care plans.
- **Changes to our home can help us continue to live independently and well.** Aids and adaptations in the home - such as grab rails, an adapted bathroom, or a stair lift - can improve people's ability to perform everyday tasks, delay the move to a residential care (for those that need it) by around four years, and reduce health and social care costs.⁸⁸ But many homes in England - particularly older properties - are not suitable at the moment (see graphic)⁸⁹ and are hard to adapt in this way. Hence, when building new homes, it is important that they are as age-friendly and adaptable as possible.

96% of older households live in homes not designed specifically for people as they get older

96%



93% of homes lack access features important for people with limited mobility

93%



- **Local authorities have an important role to play in terms of adult social care services.** An ageing society means that we need to reach a longer-term sustainable settlement for social care. That is why the Government has committed to publishing a Green Paper later this year setting out its proposals for reform. In terms of prevention, the Care Act 2014 also established duties on local authorities around wellbeing and personalisation, which contribute to this important agenda.
- **Employer behaviour is also a key driver of our health.** Over half of people living with long-term conditions say that their health is a barrier to the type or amount of work that they can do. People living with a disability are twice as likely to leave employment as are those without a disability. Long-term health conditions are often cited as people's reason for leaving employment early; with one in five people aged 50-64 leaving their last job for health reasons.⁹⁰
- **The health and social care system can help people manage their symptoms. But the workplace is also vital.** Early, proactive action from employers can retain and reintegrate those who are struggling with their health, or who are off sick (see below). Flexible adjustments to the workplace, working hours, or the job itself will also help people to thrive in the role. Occupational health advice to employers helps them achieve this. But we know that many employers, especially small businesses, lack access to this kind of expert advice.
- **If more employers acted like the best, this would help us achieve our ambition of seeing one million more disabled people in work by 2027.** The Government will consult next year on measures to encourage and support all employers to play their part in this vital agenda and to improve access to occupational health.

Case Study: Barclays - 'This is Me' Campaign

Barclays have a commitment to attracting, hiring and retaining diverse talent, particularly those with a disability or mental health condition, to ensure they have a diverse workforce that better represents their customer base.

Their 'This is Me' campaign encourages an open culture where people can share their personal stories. They offer e-learning modules that support staff to become both disability and mental health confident, and training to help staff to better understand their disabled customers. They offer practical advice and support so that workplace adjustments are readily available to all colleagues and have introduced a Workplace Adjustment Passport to enable staff to keep a record of their agreed adjustments and have open conversations as they move through their career.

In 2016, Barclays achieved 98% in Business Disability Forum's world-renowned Disability Standard (a tool used to assess a company's whole organisational approach to disability).

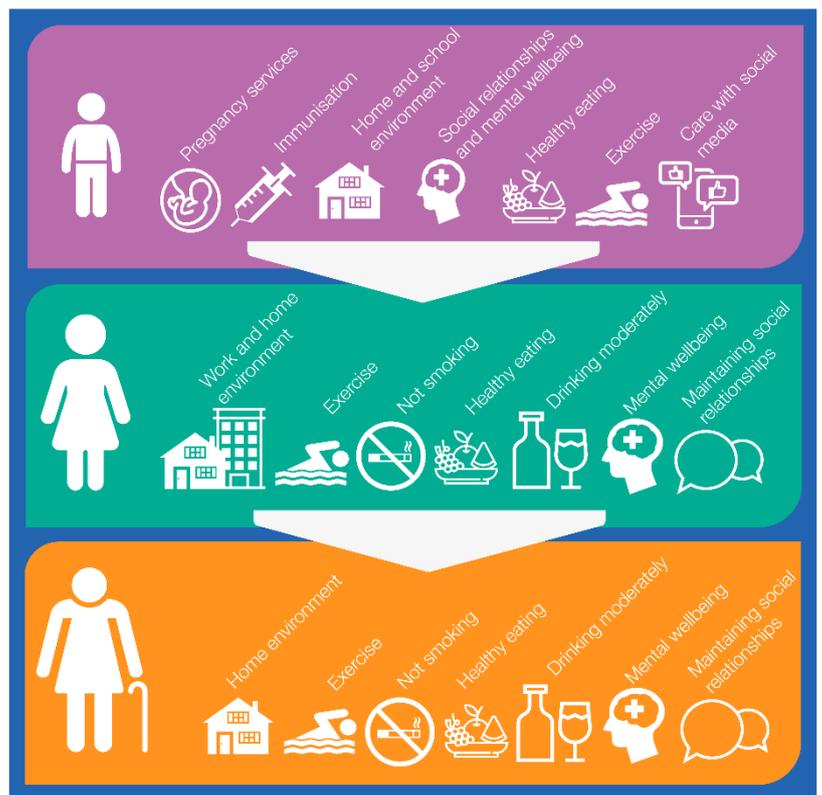
Conclusion

Prevention means stopping problems from arising in the first place. When they do, it means supporting everyone to manage their health issues earlier and more effectively.

England has a strong history of prevention, and is leading the way in many areas. But we need to do much better if we are to realise our mission of five extra years of healthy, independent life by 2035, whilst closing the gap between the richest and poorest.

Prevention and supporting good health matters at every stage of life. It matters in the decisions taken by our parents before we are born, and in decisions we make throughout our lives. If we embrace opportunities to live well, we maximise our chances of a long, happy and fulfilled life.

This document sets out a vision for putting prevention at the heart of our nation's health. We all have a role to play: as individuals and families, the health and social care system, national and local government, and wider society. Only by working together can this vision become reality.



This focus on prevention, along with the NHS Long-Term Plan, is a critical opportunity to change the way we approach and talk about health and social care in this country. But this is just the start of the process. In the first half of next year, the Government will publish a Green Paper on Prevention; setting out government plans in more detail, considering the best available evidence of what a 'health in all policies' approach could look like, and seeking your views on what action is most needed. The Department of Health and Social Care will work closely across government, and with our partners in health, social care, local government, housing and the voluntary sector.

Prevention is better than cure

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