



The health system in 2025

Towards a vision of a sustainable health system in the UK

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The health system in 2025: vision of a sustainable health system in the UK

This vision takes its structure from the Government's sustainable development strategy for England 'Securing the Future', and outlines the features of a healthcare system which

- promotes good governance
- operates within environmental limits
- plays a key role in creating a strong, healthy and just society
- helps build a sustainable economy
- uses sound science, responsibly

We set out why we have chosen this approach in section 2 of this appendix.

1.1 A healthcare system that promotes good governance

Healthcare is part of an integrated public service delivery system, with the local state functioning as a 'one stop shop' for citizens. Excellent participatory systems have evolved so that citizens are involved systematically in the identification of need, the design of local services and the allocation of resources.

- The integrated local service providers that developed out of LSPs and the culture of Comprehensive Area Assessment in the 2010s now operate through Local Service Hubs. These hubs, often referred to locally as 'the Lush' are readily accessible facilities at the heart of communities, where citizens can access a wide range of services and advice. These include health, social, educational, planning, environmental and employment services, as well as access to community police and citizens advice.
- The Local Service Hub system is at the centre of excellent **participatory processes** of co-production in primary services, that give citizens a huge influence on the way that local public and other health services are designed¹. These have gone beyond the idea of engagement or involvement, and have transformed the dynamic between the public and the service providers which have also meant that users are also involved in some aspects of service delivery². Surveys show that over 60% of users 'agree' or 'strongly agree' with the statement "my views are valued and taken into consideration by my GP practice", and the government is confident it will hit its target of 80% by 2040. Participation takes place both through face-to-face and online community activities.
- Through these processes the lead GPs in the Local Service Hubs are now seen as **informal community leaders** and given active support in this role by the Hub.
- One outcome in many hubs has been the development of local support groups to which patients are referred for **secondary & tertiary prevention** of many chronic conditions such as diabetes and heart conditions. Health trainers are on hand at hubs to provide some of this educational role and to co-ordinate these groups and provide reference material.

¹ See for example http://www.participle.net/about/our_mission/

² Green Well Fair, New Economics Foundation 2009

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- Equity **surveillance systems** are used by central government to monitor progress against equity indicators, and to inform a coherent approach to health equity – using as a marker of societal progress. All new central government policies – including the annual Budget – have to have a health equity impact assessment performed before they can move into law.³ At the local level a similar ‘health check’ is performed on transport and land use decision, so that public money is invested positively in health outcomes.

1.2 Healthcare within environmental limits

The natural environment is valued and understood as source of health. This awareness is played into spatial planning, service design and treatment regimes, alongside a thorough understanding of natural resource constraints.

- Public services recognise the health benefits of **contact with the natural environment**. Direct connection with nature is understood and highly valued as both a driver of health and part of a wide range of physical and mental health interventions. GP referrals to **Green Gyms™** are common for a wide range of conditions – treatment of dementia, recovery after surgery and many conditions caused by mental ill-health and stress. The number of green gyms has increased dramatically, from 95 in 2009 to over 5000 in 2025, and are used by over 10 million members of the population⁴.
- Through changes to planning laws in the late 2010s, 80% of homes meet the Natural England recommendation - that people should live no further than 300m from their nearest **green space**⁵. This has been achieved through major investment in creation of green space, especially in deprived areas, and an urban afforestation programme in major cities.
- There have been other improvements through **better design of public space and transport systems** to encourage active travel, decreasing carbon emissions and improving health outcomes.⁶ In the 10 largest cities in England (as well as many others), over 75% of all journeys are now made by walking, cycling and public transport⁷. Mobility benefits have been introduced for those who can't make the switch, but generally the high price of oil and carbon have made short trips very expensive. People have already noticed the positive health benefits from both increased physical activity and **reduced pollution**, and asthma levels have dropped.
- 20mph speed limits, and partial or complete closure to private cars, are now the norm for residential streets, those close to schools and public buildings, and those important for walking, cycling or children's **play**. Play is a central part of the government's healthy children strategy, aimed at promoting both physical and mental well being of children, particularly in high-stress urban areas.
- Journeys associated with the healthcare system are minimised: where a transaction can be done by ICT, it is. People's primary point of **contact with the health service** is accessible by cycling, walking or public transport – this is now true in 90% of urban areas and 50% of rural – and non-emergency hospital referrals are coordinated by the hospital and patients are picked by bus wherever possible. There is a concurrent reduction in ambulance journeys. Health service vehicles are electric and charged at hospitals.

³ WHO, Social Determinants of Health, 2008

⁴ Green Gym was created by BTCV, working with Dr. William Bird. The figure quoted for 2025 is based on BCTV's vision, provided by BCTV's development manager for health.

⁵ http://www.naturalengland.org.uk/about_us/news/2008/100308.aspx

⁶ Take action on active travel, Sustrans 2008 - www.sustrans.org.uk/webfiles/general/take_action_on_active_travel.pdf

⁷ Based on current data from Basel; see Sustrans Active Travel News, Issue 12.

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- **Direct environmental impacts** of the health service are monitored and reduced: zero net impact is the goal with excellent progress being made towards this target.
- Water usage is measured and understood at the same level of detail as carbon emissions.
- The NHS is 8 years into a comprehensive work programme to adapt its health and social care **infrastructure** (hospitals, nursing homes) to be more resilient to the effects of heat, gales and floods. All areas have developed local 'Heatwave' 'Gale' and 'Flood' plans to cope with climate-related disasters
- Over 30% of the UK's **energy** now comes from renewable sources⁸. These national targets are applied to the health system's infrastructure, and at least 30% of energy for healthcare buildings is micro-generated. The amount of energy required to run a hospital (new build) is 50% less than it was in the early 2000s as those built since that time have been designed in order to maximise natural benefits of heat and light⁹. All Local Service Hub buildings achieve Breeam 'Excellent' rating; all those built since 2010 achieve 'PassivHaus' standard or better.
- The amount of disposable (non-hazardous) **waste** produced has decreased by 15% in absolute terms. Recycling and reuse continues to increase (reaching 90% in 2022) with an ultimate target of zero to landfill. Energy is generated from waste on site at most hospitals. 80% of hazardous waste is reclaimed using a novel three-stage process which allows the clinical waste stream to be recycled into new products closing the disposal loop¹⁰.
- **Procurement** is conducted on a whole-life value basis that takes into account performance issues and also broader questions of value to society and impact on other service provision. Budget holders, procurers, service planners, designers and end-users are all involved in this systems-based approach and a full needs analysis is always conducted to establish whether there really is a need for a product or service. Procurement specifications which set out the outcome that is needed rather than the manner in which it should be delivered have prompted **innovation** in products and services and huge efficiency gains.

1.3 A healthcare system that delivers a strong, healthy and just society

Creating a healthy society is an obligation across all departments and levels of government, and not just the preserve of the Dept of Health. The creation of GP hubs, which act as a one-stop shop for health at the centre of communities, is the backbone of a system which empowers people to understand their health from birth.

- Health is an obligation and test in all public service provision. Health and equity are integrated policy objectives across government, and the health system is structured **to create health** rather than tackle ill-health. By prioritising prevention, scarce clinical resources are more readily available to meet unavoidable needs¹¹. 20% of health expenditure is now allocated to prevention and public health services, and 30% of NHS monies are devoted to primary care services.
- Overall, the cost of providing the healthcare system is in decline, from a peak of £90Bn per year around 2010, to £70Bn in 2025. The savings come from reduced demand for secondary services, and the increased level of volunteering in delivering primary care.
- Re-distributed resources are focused on **integrated measures** that create 'virtuous circles', preventing both chronic diseases and environmental damage, securing the sustainability of public

⁸ Climate Change Committee Report

⁹ See for example www.passivhaus.org.uk/ - currently primarily focussed on residential developments but applicable to new build hospital design.

¹⁰ <http://www.medicalwastesolutions.co.uk/news.html>

¹¹ Green Well Fair: Three economies of social justice New Economics Foundation (2009)

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services – eg schemes promoting walking, cycling, physical exercise, locally produced food, urban design for better local environments while at the same time cutting carbon emissions¹²

- The Local Service Hubs make it very easy for citizens to receive joined up advice ranging from fitness and nutritional information through to family-planning, psychosocial and occupational advice, alongside the traditional primary level treatment and onward referral to secondary care. It also makes it easier for GPs to refer to a broader range of public services.
- A new service since 2020 has been focused on increasing awareness of **how people can adapt to changes in climate**. Advice on self-care in extreme weather conditions (particularly extreme heat) is central to this, as are awareness campaigns around the increased incidence of respiratory problems and skin cancer due to the damaging effects of surface ozone during the summer¹³
- Everyone has an electronic health passport, which records the information created through the **personal health planning system** where patients work with health professionals (such as community matrons and health trainers) to monitor progress of their health, identify what needs to be done by them to maintain their health and what services they need in order to deal with arising health problems. This awareness and responsibility is supported by a screening regime focused on maintaining health – for example via an annual ‘MOT’ designed to update the health passport, generate appropriate lifestyle advice and to identify early stage disease.
- **Children** are introduced to this system through school and take on responsibility for developing their health and setting their own health goals with help from their parents or carers, school staff and health professionals. A key part of the national curriculum is understanding how our bodies work and the consequences of lifestyle choices on health.
- Under the ‘Thrive’ programme children are supported in leading healthy lives **from birth**. There has been a big shift since new legislation in 2015 introducing rights to ‘planned parental leave’, which allows couples (married or not) to split the right to one year’s parental leave between them. This has been combined with active fatherhood programmes and tax-breaks for fathers who take an active part in their child’s lives.
- The developmental needs of the child are recorded in their health passport, which is passed on to the health staff at their primary school to ensure **continuity of development** as they move into the education system.
- Modern and integrated **information and communication technology** (ICT) is being used to full effect, joining up all levels of health and social care and in doing so delivering significant gains in efficiency¹⁴. In particular, the use of information technology ensures that distance is no longer a communication issue between health and social care workers based at different locations, for example, people who are most vulnerable may have access to tele-monitoring in their home¹⁵, and hospitals based on the traditional ‘cottage’ hospital model can now access high tech virtual links to centralized secondary and tertiary care centres.
- The majority of general and less **specialised medical and surgical care** has moved out of large hospitals. Hospitals focus almost solely on specialist treatments, and there is a new ‘whole systems’ relationship between self-care, primary, secondary and tertiary care¹⁶. The service delivery point of choice is the home.

¹² SDC’s Health, Place and Nature report

¹³ Health Effects of Climate Change in the UK 2008. An update of the Department of Health report 2001/2002. Edited by Sari Kovats

¹⁴ Department of Health ‘The health service in 2020’

¹⁵ DHSSP ‘20 year vision for Health and Wellbeing in Northern Ireland’

¹⁶ Department of Health ‘The health service in 2020’

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- The **workplace** is recognised as an access point for promoting the health of the community, and employers have obligations such as an additional half-day's leave for all employees to have their health MOT. Initiatives are in place to ensure that people return to work as quickly as possible – wellness notes rather than sickness notes are now the norm¹⁷.
- The minimum wage and state pensions are now at a level where NGOs agree that they represents a **living wage**, an improvement which has removed some of the stress for non-formal workers. Government is now examining further benefits, such as improved access to representation in policy discussions and rights to parental leave for those workers.

1.4 A healthcare system that uses sound science responsibly

Actions are based on evidence from a range of traditions and methodological backgrounds, including both qualitative and quantitative data. Carbon reduction targets, and other natural resource-use targets, are an integrated part of health planning.

- An understanding of the social determinants of health are a compulsory part of the training of all public servants, medical and health professionals, and **health literacy of the general public is a performance measure** for Local Service Hubs. Social empowerment strategies – such as participatory research and advocacy groups – are used to increase social awareness of health and health-care systems¹⁸. Public education is commensurate with the speed of technological developments – new options are built into personal health planning programmes.
- **Schools** have a central role in health education both through teaching the national curriculum, which includes health from year 1, and in regular health education sessions for parents in the evenings.
- Funding streams have been used to promote the development of a cadre of **Citizen Scientists**¹⁹ who have a formalised role in interpreting and promoting science to the public, and vice versa. This has both helped break down the barriers between formal research findings and interpretation, and helped the scientific community respond to changing social contexts.
- **Regulation** is used where necessary; including taxation on high fat, salt and sugar foods, and strict regulations forbidding advertising and the sale of unhealthy food to children.
- Up-to-date science of **climate change** is accepted and carbon reduction targets are an integrated part of the health system. The government's information campaigns on carbon and carbon reductions have meant that the links between climate change and health are well understood by the general public, and behaviour change is underway, particularly on modal shift in transport. The trade-offs between the efficiency and carbon benefits of virtual healthcare, and the positive affect of human contact from the traditional healthcare environment are made explicit in healthcare design.
- Developments in **genetics** have been at the cause of much ethical and legal debate over the years, with case law establishing the limits of how this information can be used. It's now firmly established that no one can be discriminated against on the basis of their genome, and insurers have no access to this information.

¹⁷ 'Working for a Healthier Tomorrow'

¹⁸ WHO, Social Determinants of Health

¹⁹ Citizen Scientists, Demos, 2009

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- As a result of several high profile pollution accidents, a strict regulation regime has also arisen around **nanotechnology**, which has tried to ensure that all advances are in the public interest and unintended consequences are minimised.

1.5 A healthcare system that promotes a sustainable economy

Rather than a sustainable economy being an end itself, it should be seen as the means to reaching the more fundamental goal of a 'strong, healthy and just society' that is 'living within environmental limits' (Securing the Future, DEFRA 2005)

- It is widely recognised by government and citizens that prosperity does not rely on a set of default assumptions about consumption-led growth, and that a **less growth-driven economy** improves people's work-life balance and well-being. This is reflected in changes to **macro-economic accounting**²⁰, which incorporate welfare losses from inequality in the distribution of incomes and account for social costs of carbon emissions. National indices of wellbeing through the measurement of outcome variables such as healthy life expectancy, educational participation, social wellbeing, trust in the community, sit alongside GDP as a measure of the strength of the economy.
- Government has legislated to bring about **structural social changes**, dismantling perverse incentives to unsustainable status competition²¹. This includes strict regulation of commercial media portrayals of unsustainable consumption patterns, establishment of commercial-free zones and times and enhanced support for public sector broadcasting. The introduction of carbon rationing and natural resource constraints pushing prices up have also played their part in switching preferences away from material consumption.
- Income inequality is recognised as a key driver of health inequality and **redistributive measures** are codified in income tax structures and minimum and maximum income levels²²
- **Cross-budgeting** between government departments is the norm, rather than the exception. Taking a holistic view of finances means that invest-to-save measures, such as transport investments through health budgets, are routine and readily justified²³. All departmental budgets are assessed against demanding health outcome targets.
- With the carbon price at £40 per tonne²⁴, the UK is working to stringent **carbon budgets**. Measures that also promote health (including a 50% reduction in consumption of meat and dairy produce, the localisation of food production and consumption, and significant modal shift in transport,) have helped Britain hit its emissions reduction target of 42% by 2020 relative to 1990. the carbon price currently stands at around £40 per tonne of. The cost of meeting this budget proved to be less than 1% of GDP in 2020.
- **Carbon-efficiency** has become the over-riding goal for society, replacing cost-efficiency. This has led doctors to carefully consider whether carbon-intensive treatments are clinically indicated, which has led to some public protest. Incentives in the system are organised so as to **reward the**

²⁰ Sustainable Development Commission. Prosperity Without Growth? The transition to a sustainable economy. Prof Tim Jackson, 2009.

²¹ Sustainable Development Commission. Prosperity Without Growth? The transition to a sustainable economy. Prof Tim Jackson, 2009.

²² Sustainable Development Commission. Prosperity Without Growth? The transition to a sustainable economy. Prof Tim Jackson, 2009.

²³ E.g. the UK Department of Transport estimates that every £1 spent in reducing car use saves up to £10 in the economy through a combination of fuel savings, reduced congestion costs and lower pollution levels. See Sustainable Development Commission. Prosperity Without Growth? The transition to a sustainable economy. Prof Tim Jackson, 2009

²⁴ Building a low-carbon economy. The UK's contribution to tackling climate change. The first report of the Committee on Climate Change, December 08.

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prevention of illness (maintenance of health) rather than solely treatment. Financial structures encourage healthcare professionals to look upstream at the **determinants of patients' health**, and to prescribe a wide range of preventative interventions, including loft insulation, bicycles, training shoes and healthy eating vouchers. Pharmaceutical companies have switched R&D onto the prevention of conditions, rather than on palliative drug regimes.

- Healthcare institutions are incentivised to support and trade with local businesses and communities²⁵ to retain wealth within the local economy, particularly in deprived neighbourhoods. Wherever possible healthcare building programmes utilise local labour to both provide facilities and contribute to regenerating local communities. Time banks are used to offer support to Local Service Hubs such as participation in peer-to-peer health education²⁶.
- Open markets with **minimal bureaucracy** ensure that a variety of contractors (including SMEs) are able to tender for public sector contracts. An online 'one-stop shop style' service exists where suppliers register on a system, buyers register their needs and the system flags up where these match.
- Working time directives and improved **incentives and rights** for part-time workers and around parental leave, sabbatical breaks and family time have also contributed to reduced working hours and improved work-life balance²⁷.
- **Volunteering** is valued for its contribution to the economy, so volunteers (for example the increasing numbers taking care of the elderly in social care centres or at home) benefit from tax incentives for donating their time. This has been hugely significant in easing the potential burden on the NHS burden of an ageing population – today 7.5m people are aged 75 or over (compared with 4.7m in 2006²⁸).
- Healthcare remains **free at the point of delivery** to all, and social protection systems are fully extended to migrants²⁹, which remains a point of pride with the British public.

Health stories from 2025

To illustrate the vision, we've tried to imagine the experience of some real people living in a medium sized town somewhere in England in 2025.

1.6 Dave

Born in 1980, in the early noughties Dave trained as a chippy specialising in ecobuilds. He prided himself on never having a day's illness but when the health MOT service began in 2015, he was identified as at risk for heart disease, and has now been on a health programme prescribed by his GP for over a decade. It means being a bit more careful about what he eats, and getting more exercise. That's a bit easier now he doesn't own a van – it got too expensive when the carbon allowance came in, and anyway it's pretty flexible borrowing one from the Service Hub. So most days he finds himself walking or cycling to work.

²⁵ Green Well Fair, New Economics Foundation 2009

²⁶ <http://www.rgtb.org.uk/>

²⁷ Sustainable Development Commission. Prosperity Without Growth? The transition to a sustainable economy. Prof Tim Jackson, 2009.

²⁸ Office of national statistics, 2008, National Population Projections, 2006 based.

²⁹ Closing the Gap, World Health Organisation, 2008

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Once every six months he logs on to his e-health passport at the LSH, and updates information on his blood pressure and weight. A couple of years ago when these were creeping up and he'd begun to notice breathlessness walking upstairs, his GP called him in for a consultation and they discussed whether to refer him to a specialist. After a couple of tests, he was given the option of a drug regime, but for the time being he's chosen to manage his own condition. His GP has referred him to the local healthy man group, who meet once a week, sometimes to hear from an expert on the latest thinking on management of heart disease, sometimes from a nutritionist, and sometimes just for a walk and talk. He finds it relaxing to spend time with guys like him all keeping an eye on their health, and the tax breaks he gets for sticking to his health programme are quite an incentive too. He's been able to ease off on his working hours a bit too, and has discovered a love of the countryside. After a day hiking through the Dales chatting with his new mates, he finds his blood pressure is right down to normal.

In the last couple of years he's been working for a small contractor in town, and because he's also part of the LSH community panel he realised that it would be possible to pitch for work on the new health creation centre that's being commissioned to house complementary therapists, a community hall and a new citizen support desk. It only took a couple of hours to put in a tender online.

1.7 Dora

Dora didn't really expect her health to improve when she retired early in 2015. A sufferer from sickle-cell anaemia, and trapped in a lifestyle that had left her in the 'morbidly obese' class of overweight, she had been warned of the risks to her health but couldn't seem to change her life, especially when she had been told that her anaemia meant avoiding vigorous exercise. It was a shame, especially as she had enjoyed swimming in the sea as a child in Grenada.

So a couple of days after her retirement party she was surprised to get a call from her new community advisor, telling her about how she could get extra benefits as part of her pension if she came in for a health check and signed up for a healthy retirement plan. She was a bit dubious at first, particularly as she had heard that genetic screening might disadvantage people with conditions like hers. But hearing that the voucher system for healthy foods just meant free fruit and vegetables, and that she could get a bigger pension just by agreeing to take some extra walks in the new park, it all seemed harmless enough.

Ten years later, those walks have become a habit, and though she's slowing down a bit she wouldn't miss her retirement club for the world. After a session on 'growing your own' at the LSH, she's taken up gardening and shares one of the new allotments with two other ladies from the club – it's amazing how many months of the year she can get a crop now that winters are so mild. She seems to be able to eat as much as she likes and the weight fell away – and the better diet seems to reduce the frequency of her anaemia attacks. She's become a bit of an expert on managing her illness, and has been mentoring some other sufferers in the community. All this volunteering has also helped her boost her income, earning her points in the local currency, which can buy a surprising range of goods and services including the ballroom dance classes she takes at the LSH hall.

1.8 Adnan

Adnan qualified as a doctor in 2022, and is now a junior partner in the local LSH. The Hub has been one of the government's pathfinder health creation centres for over a decade, and is widely credited

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with much of the improvement in health achieved in the town in that period. Adnan's very proud to be part of the set up there – he grew up locally and the Hub has already been a big part of his life.

Arriving at work, Adnan can't help smiling at the odd mixture of high and low-tech ways that he, his colleagues and the community create their health here, with a karate class in full swing in one of the studios, a laughing class in the main hall, a steady stream of patients passing through the health check suite, and short queues for most of the onsite experts. Walking in he found himself chatting to one of his health group, who was on her way for one of the sessions of the citizen's jury on allocation of cancer treatments that are being held in the community room. As ever, it's a challenging question with no single answer, but Adnan is optimistic that with a clear national floor standard in place and a really strong community involvement process they should be able to please most of the people, most of the time. Some of his senior colleagues say that the culture has changed over the last couple of decades, with people more knowledgeable about their own health and more ready to take responsibility for it. Maybe – they're certainly doing more to keep hold of it, and the way everyone harks back to a time when staying healthy was somehow self-indulgent and counter cultural is baffling to someone as young as Adnan. In his training and now in practice, it's all about working with the grain of health and the environment.

He sees a dozen or so patients who have come either with new problems or just to check in on their health programme. He updates their programmes, tweaking the information on their health e-passports as he goes. One elderly man is obviously struggling to keep himself warm at home, and Adnan refers him on to the advice counter with a note about getting an energy services visit – he should be able to get a new boiler and some insulation more or less for nothing. He's booked another man an online session with the cardiologist in the regional hospital – using their telemetry suite it should be possible to get a full diagnosis without the disruption and journeys that used to require all those huge car parks and fleets of vehicles.

At lunchtime he leads a group of joggers taking a couple of turns round the park, and they chat about the points everyone has clocked up on their health passport, and what they're going to spend them on.

In the afternoon, he's part of a group at the LSH reviewing what secondary and tertiary services they'll be commissioning in the coming year. Some things haven't changed much – they're still buying hip replacements and facing up to the epidemic of alzheimers that shows no sign of abating. But in other areas, particularly obesity, cardiovascular disease, certain forms of cancer, diabetes and asthma, trends are all downwards and more budget is available for positive interventions, including on some of the wider determinants. How many new miles of cycle lane should they commission? Can they fund another community park animator? Can they buy the vacant land next to the Hub for a kitchen garden? With the LSH and Adnan himself evaluated and rewarded for results in positive health outcomes in the community, it pays everyone to keep driving the trends in the right direction. Adnan is actually looking forward to next year's audit and another year of health improvement in the bag.

1.9 Nelisha and Barack

There's a big gap between Nelisha's first child Razan and her second, Barack. When Razan was born in 2005, Nelisha was still new to the England, spoke little English isolated and suffered badly from post-natal depression. She seemed to be forever with the doctor or the health visitor, trying to

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get someone to understand problems that either she or Razan had, and usually ending up with a prescription for drugs of some sort.

By the time Barack was born in 2015, the system had changed dramatically. As soon as she thought she might be pregnant, a support network swung in around her, beginning with her trip to the brand new LSH. Nelisha's English still wasn't very good, but her health visitor spoke her native language and carried out a rigorous social and health risk assessment through a handheld system linked to the Hub. The health visitor picked up on her history of post natal depression and worked with her GP on and Nelisha on a health plan including referral to a community social support group, where one of the mothers had also trained up as a citizen scientist on childbirth, and helped Nelisha think about her birth options. She kept up with the walking and cycling that were part of her health agreement throughout pregnancy, and gave birth at home. Once Barack was born, for Nelisha the plan meant use of the crèche her local LSH while she attended healthy eating classes, a talking therapy for her depression, English classes, parenting classes, and getting whole family-based culturally appropriate family planning advice. Her GP and health visitor explained it all to her and Barack's father, who's still involved though they are no longer together Through Barack's first weeks and months they were visited regularly as part of the Thrive programme, with lots of parenting advice for Mary and also his Dad.

Through those early years she really began to appreciate the lower speed limits in the neighbourhood and the growing amount of greenspace. When Barack was seven, regular screening picked up that he was putting on a bit too much weight, and he was put on a new health regime, including walking to school, extra help for Nelisha with food and dietary advice, and free membership of a kid's adventure group. Now Barack is ten, he's healthy and on the right track. Nelisha's grateful that advertising to children had been banned back in 2015, and that high fat, salt and sugar foods are not available at school. She and the school have an agreement with the local health hub about Barack's health goals. Barack's being taught about his body and his health in a way that Nelisha wishes she'd had when she was at school – and quite often it's her son who polices what they eat and encourages her to do something active at the weekends.

Nelisha went back to work part time within a few months of Barack being born, but she's been able increase the amount quite gradually, and the amount of support she and Barack's Dad get has meant that they've been able to give Barack plenty of attention. The flexible opening hours of her LSH mean that help is never far from hand.

2: Trends in health, and the need for a vision framed by sustainable development

Setting a 'vision' for healthcare in the UK suggests there's something wrong with the expected future; that current trends will not yield good outcomes in the long term. The WHO cites five 'big picture' weaknesses with primary care that pervade approaches around the world. Some focus on inequality: primary care is often more easily available to and consumed by the rich; government funding usually benefits the rich more than the poor, and in poor countries where there is no insurance system, many fall further into poverty paying for healthcare. Specialization in both health care provision and prevention militates against continuity and a holistic approach to individuals, and this fragmentation affects the poor disproportionately. And poorly designed systems seem unable to achieve the basics in safety and hygiene, leading to a growth in hospital acquired infection and errors in medication.

Last item on the WHO list is 'misdirected care' in which "resource allocation clusters around curative services at great cost, neglecting the potential of primary prevention and health promotion to prevent up to 70% of the disease burden. At the same time, the health sector lacks the expertise to mitigate the adverse effects on health from other sectors and make the most of what these other sectors can contribute to health".

These failures are the tip of an iceberg of issues that the current healthcare system will collide with in the next twenty years. Some of the trends have a straightforward connection to health – an ageing population, the growth in asthma, mental health problems, obesity and diabetes already present huge challenges to the current model of provision. Others will radically change the context for healthcare provision, including trends in inequality, the arrival of climate change, and new technologies.

So it's clear that without major modification of the overall approach to health, the system is likely to be put under a range of pressures that it will not be able to cope with. The UK approach to healthcare has grown organically over centuries, and the outcome is the product of both incrementalism and countless strategic initiatives with different motivations affecting institutions and subsystems within the whole. It was not designed to anticipate climate change or food insecurity, or a range of diverse and competing new pressures.

Sustainable development is a frame for looking at the system as a whole and considering the social, economic and environmental conditions in which any approach to healthcare must achieve its outcomes. By working from the big picture into the grain of the system it's possible to anticipate risk, find opportunity and plan a path to a more effective service.

Visions can be a powerful tool for planning and strategy, but can also be so generic, abstract and utopian as to have little practical application. It would be simple to describe an idealised world in which everyone was healthy and there was no need for the NHS, but clearly this would not be very useful. Instead we have tried to set out a plausible vision for 2025 by combining some 'end state' features of the system which we believe could be achieved in that time frame with other 'milestone' features that reflect necessary progress on issues like climate change over the same period. Setting a vision for 2025 also takes us about half way through the generation in which the Government hopes to 'close the gap' on inequality.

Our vision tries to set out conditions whereby the system both achieves its conventional aims i.e:

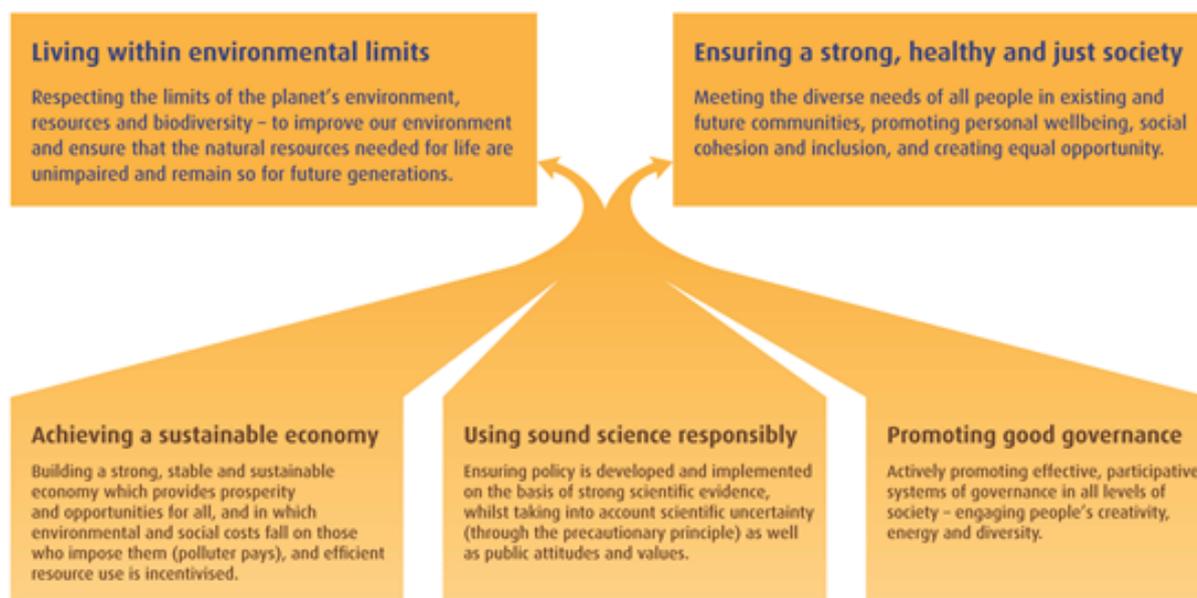
Appendix 1: Vision of a sustainable health system

- Patients receive consistently high quality care wherever and whoever they are. It is appropriate, timely and in the right setting.
- Whenever possible, the health system will act first to prevent illness, disease and social harm. When such prevention is not possible the healthcare system minimises the impact of illness and social harm on people's quality of life³⁰.

And also achieves sustainability, by operating within natural limits and where possible enhancing the natural environment, and by contributing positively to quality of life and economic prosperity.

Our vision is therefore not confined to the specific remit of the NHS today but rather looks more broadly at what a health system might comprise, including its role in relation to some of the wider social determinants of health.

There are many different ways a vision of a sustainable healthcare system could be structured. We have taken the Government's five principles for sustainable development as originally expressed in 'securing the future' the government's sustainable development strategy for England, as our starting point.



We have chosen this structure as a basis for the vision as it is widely accepted as a comprehensive account of the principles which should underlie policy making for sustainable development. These principles provide a useful and familiar basis against which to check the content of the vision. Some further principles are implicit on our vision: we believe the healthcare system will have to function in a low carbon, low growth economy, and also that to achieve sustainability the focus will have to be much more on the integration of health creation activity by different players, and on prevention of ill health. As suggested by the New Economic Foundation's report Green, Well, Fair, we believe "Public services must tackle primarily the combination of social, economic and environmental factors that distribute opportunities and create avoidable inequalities"

³⁰ Department of Health 'The health service in 2020'

3: Key future trends

For this vision of a sustainable healthcare to be robust, factors that are likely to drive significant change in the next 20 years need to be accounted for systematically. We have selected trends which seem to us either so directly connected to the performance of the healthcare system that they are a critical test, or which might not be picked up elsewhere in the review.

3.1 Ageing population

The number of older people will significantly increase relative to the number of younger people, with the mean age of the population in the UK expected to rise from 39.6 years in 2006 to 42.0 years by 2026. The population aged 75 and over is expected to grow from 4.7 million in 2006 to reach 7.5 million by 2026 and continue growing afterwards. There is projected to be 312 dependents of pensionable age per 1000 people of working age in 2026 (up from 306 in 2006).³¹

The future health care system will need to address an increase in disability and illness, particularly the long-term conditions associated with ageing and an increase in mental illness like dementia³². The extent of the challenge will depend on whether a rise in life expectancy will be accompanied by more healthy years of life and whether health problems will be concentrated at later stages of individuals' life³³.

3.2 Climate change

3.2.1 Adaptation

Climate change can be expected to have a range of impacts on UK health³⁴, to which a future health care system will need to adapt:

- An increase in deaths, disability and injury from extreme temperature and weather conditions (heat-waves, floods and storms including health hazards from chemical and sewage pollution)
- Respiratory problems from the damaging effects of surface ozone during the summer, skin cancers and cataracts
- New and reappearing diseases: it is thought that vector borne diseases such as malaria will remain relatively rare, but the possibility of new outbreaks must be anticipated.
- Long-term, less direct effects such as the mental health impacts (anxiety, depression) of flooding and other climate-related events.³⁵

³¹ Office of National Statistics (2008) 'National Population Projections. 2006-based',

http://www.statistics.gov.uk/downloads/theme_population/pp2no26.pdf

³² The Government Office for Science (2008) Foresight Mental Capital and Wellbeing. Final Project Report

³³ Healthy Life Expectancy, Parliamentary Office of Science and Technology, February 2006,

<http://www.parliament.uk/documents/upload/postpn257.pdf>

³⁴ DH and Health Protection Agency (2008) 'Health Effects of Climate Change in the UK. An update of the Department of Health report 2001/2002'

³⁵ Managing the health effects of climate change, Lancet and University College London Institute for Global Health Commission, Costello et al, 2009

3.2.2 Mitigation

By 2025 we will need to see a radical decarbonisation of the UK economy if we are to succeed in making the emissions reductions necessary to play a fair part in tackling climate change. The UK should have reduced its emissions by over 42% relative to 1990 levels (this is the 'intended budget' for 2020 based on a global deal). The likely price of carbon is projected to be around £40/tCO₂ in a 'central scenario'³⁶.

A lot will need to change, from the way we procure our energy to the way we will our daily lives. Improved energy efficiency will play a significant part but it is not sufficient. Renewable energy will need to constitute at least 30% of our total energy, as part of a need to cut power sector emissions by 40%³⁷. A robust strengthening of policy framework in other areas will also be required, from the support of electric vehicles to retrofitting residential and healthcare buildings. A push towards more low carbon lifestyles will affect health in the UK in a number of ways. There will be both positive forces on health outcomes (for example through the adoption of low-carbon travel options like cycling and walking, as outlined in the transport and vision sections) and also potentially negative ones (such as dietary options that are low carbon but not nutritionally healthy) arising from stricter carbon regulation. The consequences of a high price of carbon must be carefully monitored to ensure they do not disadvantage particular sections of society, for example those populations vulnerable to increased food prices, a decline in the availability of a variety of foods, fuel poverty or an inability to access essential services.

3.3 Technology

Technology increasingly plays a role in developing new treatments, improving existing services and health outcomes and altering the settings in which treatment and care can take place. Advances in information technology, bio-technology, pharmacology, genomics and the life sciences more generally, will have a fundamental impact on the utilisation and delivery of curing and caring services as well as on the possibilities available to predict, prevent and promote health and wellbeing.

New technologies employed in health care also have organisational impacts, as distinctions between primary, secondary and tertiary care are blurring, roles amongst health professionals change and the need for training and development of professionals to maximise the utilisation of new technologies increases.³⁸

3.4 Population growth and migration

The population of the United Kingdom is projected to increase from an estimated 60.6 million in 2006, exceeding 65 million in 2016 and 70 million in 2028, to reach 71.1 million by 2031. This is equivalent to an annual rate of growth of 0.64 per cent over the twenty-five year period. Longer-term projections suggest the population will continue to rise beyond 2031 although at a lower rate of growth.

³⁶ Building a low carbon economy: The UK's contribution to tackling climate change. The first report of the Committee on Climate Change, December 2008

³⁷ Building a low carbon economy: The UK's contribution to tackling climate change. The first report of the Committee on Climate Change, December 2008

³⁸ Policy Futures for UK health 2000 report; The King's Fund (2008) 'Technology in the NHS. Transforming the patient's experience of health'

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Some 47 per cent of the projected 10.5 million increase in the population between 2006 and 2031 is directly attributable to the assumed level of net inward migration.³⁹

There will be increased pressure on the healthcare system of the future to address the needs of a growing and increasingly diverse population, both in terms of resources and systems of delivery.

3.5 Food security

The future of food security can be compromised by the impacts of climate change (crop failures causing food insecurity through rising food prices and possibly food shortages) and by a potentially increasing geopolitical instability that would disrupt global supply chains (armed conflicts over water, land and food supplies).

Food shortages and insecurity could compromise the health status of communities, with low income families being the most vulnerable.

3.6 Other trends for consideration

Various trends more distant from the healthcare system may also be worth considering in the next phase, eg:

- The global economic system
- Transport and personal mobility
- The changing role of business
- Regimes of government
- Consumer attitudes and behaviour.

³⁹ ONS (2008) 'National Population Projections. 2006-based'