

The NHS Refounded: Delivering a Health Service Fit for the Future

AXEL HEITMUELLER

Contents

Foreword 3

Executive Summary 6

A Religion in Decline 8

Looking Through the Crack in the Wall 12

It's in the DNA 18

A New Deal for Autonomy and Accountability 26

Five Exemplars of an Accountability Network 28

Conclusion 42

Foreword

The NHS was founded to ensure that health, in the sense of treatment of illness, was not dependent on wealth. Instead the vision was of a universal, taxpayer-funded service free at the point of use to all.

That governing principle must remain.

However, the NHS envisioned by Sir William Beveridge and Aneurin Bevan – a centrally controlled, "one-size-fits-all" service focused on how we treat sick people – no longer fits the requirements of today's world.

The NHS is an instrument of support and succour for people when they need it most. Its governing principle is a matter of deep conviction. But the way the NHS is established and organised should not be and cannot be a matter of belief, but of practicality. The NHS is a service, not a religion.

Two massive changes in the context in which health care is delivered are underway, both driven by the technology revolution.

First, life-sciences advances such as those we have seen during the Covid-19 pandemic, new treatments and screening, huge innovations in cancer and cardiac care, and a vast increase in our knowledge of how to keep healthy mean that our aim today is not simply treating sickness, but also how we help people to lead healthier, longer and happier lives. And where the NHS should work in partnership across society to achieve this.

Second, artificial intelligence, machine learning, cloud and soon quantum computing will allow us to gather health data, analyse those data and use them to inform and shape the service, including the relationship between the patient and the health-care professional. The internet puts information at our fingertips. There is a new way of holding the service to account today: data and the insights that come with them. Together with new ways of involving and engaging patients, there are different and better systems of accountability available than those located solely in Whitehall.

What all this means is that the NHS – 74 years on from its birth, this July – has to become a place of innovation; the patient and the doctor or other health-care professional have a new relationship where responsibility for care is shared; and the service needs dynamism, not top-down command and control. Paternalism – a revolutionary step forward in health care in 1948 – is an obstacle to the new revolution now required.

As presently constituted, the NHS cannot be the service we now need.

Over the past 20 years, significant reforms have been made – notably around patient choice and Foundation Trusts in the early part of the century.

Now the government rightly wants to move to an integrated care model where health and social care are managed together, and where the new authorities will have a remit beyond the narrow issues of care to engage with broader societal objectives.

But, in our view, the time is right to debate whether we need to and could go much further and change fundamentally the design of the way the NHS is run.

We therefore propose the following:

- 1. We change radically the role of the centre to focus on certain core capabilities that the centre should do and can only do. These would include eventually: a full national public-health data infrastructure, one that is interoperable and capable of bringing all the disparate data sets within the NHS under one roof; electronic personal or health records for all patients with patients given the right to have all their information stored and available to any health-care professional they want anywhere in the NHS system; a revamped NICE, giving guidance on new treatments and drugs; and a process for enabling new learning and sharing of innovation across the service. And of course, the power of intervention in the case of a failing or mismanaged service.
- 2. Other than for these capabilities, the new integrated care boards, in partnership with clinicians and NHS staff, should have the freedom from central control genuinely to innovate, run the service and manage the budget in the way they see fit to meet the needs of their local patients, which they know best. Going further and faster on devolution is therefore essential.
- 3. These freedoms should include the ability to enter into partnerships with the private or voluntary sectors, to embrace new methods of treatment and prevention, to create the workforce they believe is best suited to the care they want to provide and to raise money locally through social impact bonds not as a substitute for taxpayer funding but as a source of better community engagement.
- 4. In place of a system of accountability based purely on the centre, there should be full transparency and publication of health data, nationally and locally, available to the patient and to the broader public.
- 5. The NHS should make available on an anonymised basis all the data held by the service for the encouragement of research and the development of the British life-sciences sector.

There will be those who argue that the secretary of state for health will always feel accountable, even if not; or that, without central control, things will go wrong; or that ultimately the public will demand political accountability and therefore the tension between devolution of power and central command will never be released.

But we need to understand that around the world, health care is done differently, often with much less central control and often, unfortunate but true, with better outcomes.

It is time to have an honest debate about what is good about the NHS and what is out of date. And then to fashion policy accordingly.

Tony Blair

Executive Chairman

Executive Summary

The National Health Service is in a precarious state and may not reach the end of this decade intact. The current model, as envisioned by Sir William Beveridge and Aneurin Bevan, is no longer viable. Even with additional funding, health outcomes are unlikely to improve without significant transformation.

The most fundamental shift required is to balance sickness and preventative care more effectively. Today, we have the means to increasingly prevent or anticipate ill health as a result of technological and scientific advances. We also know that true and effective health care needs a much deeper and continuous relationship between patient and carer to address the complexity of need.

Progress towards modern health care has been slow because of the very DNA of the original NHS model: a highly centralised system with an overreliance on top-down performance management as the main system of accountability.

Many have recognised the challenges posed by the NHS's command-and-control approach and the need to unleash transformation. But previous attempts at change have failed because of an inability to resolve the apparent conflict between greater autonomy to innovate and the need for robust accountability in a tax-funded national system.

But now we have the tools to square the circle. Autonomy to innovate without loss of accountability is possible. The very same advances in technology, data and participatory levers that inform tomorrow's health care also now make it possible to replace top-down accountability with a new "accountability network" that involves patients, clinician peers, citizens and local government – and which puts a different vision at the heart of a refounded NHS.

As this paper shows, Whitehall should focus on activities that demonstrably benefit from centralisation, including providing data and digital infrastructure at a national scale. But instead of relying predominantly on top-down command and control, a smart public-service model should make greater use of horizontal accountability through peer-to-peer, citizen-to-carer and participatory-democracy levers.

Some of these are relatively easy and inexpensive while others will require structural, cultural and legislative changes. All of them are practical examples of how we can transition into a future where the NHS is able to meet the growing expectations placed upon it.

With the NHS having celebrated its 74th year on 5 July, it is time to reboot the way in which we bring about change, to move away from one-size-fits-all health-care provision and to create a modern public-

service model that helps to bridge the gap between the many opportunities for innovation and the urgent need to reform the NHS.

A Religion in Decline

Health-care spending is increasingly crowding out other public services. Health funding is forecasted to reach up to 44 per cent of day-to-day government spending by 2024. ¹ There is no right level of health funding but this increased spending combined with sluggish GDP growth mean tough choices in other government departments. Crucially, this will make it even harder to afford focusing on the wider determinants of health, which in turn puts additional pressure on the NHS. Left unchecked and unbalanced, "the British state will increasingly resemble a health-care system with nukes". ²

Taxes are rising to meet some of these costs. The government has increased national insurance contributions to raise an additional £12 billion annually through the Health and Social Care Levy. $\frac{3}{2}$ Around £8 billion of this additional funding will tackle the NHS backlog over the next three years. Higher taxes come with significant political costs.

Most concerning, even these amounts are unlikely to be sufficient to quickly reduce the growing waiting lists, provide for the rapidly dilapidating real-estate backlog, fund social care and cover significant transformation through innovation. $\frac{4}{}$

At the same time, many key health indicators for the UK are already pointing in the wrong direction.

Increases in life expectancy started to slow about a decade ago and the Covid-19 pandemic has led to a sharp fall. 5 Health inequalities are on the rise particularly between wealthy and deprived areas. 6 More than 6 million people are on a waiting list for pre-planned treatments. 7

Internationally, the NHS ranks among the worst countries specifically in terms of health outcomes. $\frac{8}{}$ For example, for strokes and heart attacks the NHS has the worst survival rates. Across five different types of cancer, we come 16 out of 18 comparable countries. $\frac{9}{}$

Public satisfaction with the NHS is the lowest in 25 years. Overall satisfaction with the NHS fell to 36 per cent in 2021, constituting an unprecedented 17 percentage point decrease compared to 2020. ¹⁰ The main concerns are over waiting times, staff shortages and a lack of funding. ¹¹ This is not surprising given that more than 6 million people are waiting for care and there are more than 100,000 vacancies. Interestingly, the quality of services is not yet seen as a challenge despite the country's low international standing on outcomes. However, an increasing number of patients opt for self-pay private health-care alternatives for shorter waiting times and to avoid potential adverse health outcomes. ¹²

There is therefore a real risk that the NHS in its current form – a key plank of our welfare system – will not emerge intact at the end of this decade. The plight of NHS dental services over the past few years,

which has left many patients facing extremely long waiting times and therefore often no other choice but to pay out of pocket, may provide a glimpse into the future. $\frac{13}{12}$

But the problem goes much deeper than funding. The NHS was conceived as a centrally controlled public service focused on episodic care. That public-service model is no longer valid.

The architects of the NHS, Beveridge and Bevan, constructed it and the wider welfare system as an insurance against illness and destitution, accessible to all and free at the point of care. The purpose of the NHS was to provide peace of mind in case of sickness.

Beveridge's original scope of a national health-care service did include prevention, but this aspect of the NHS has never been developed to the extent initially envisioned. Similarly, Lord Morrison's argument of keeping alive the zeal of local authorities and local participation in promoting prevention, as exemplified by the pre-NHS Peckham Experiment designed to support the health of families in their own environments, ¹⁴ was unconvincing as an example of government success to either Bevan or Prime Minister Clement Attlee at the time. ¹⁵

Instead, Whitehall's central control over its operations was seen as a necessity to the service delivering on its objectives from the start. Minister of Health Bevan famously said the sound of a dropped bedpan in Tredegar (his Welsh constituency) would reverberate around the Palace of Westminster. Seventy-four years later, the most recent Health and Care Act provides the health secretary with new and increased powers to direct the NHS. In the words of author Nick Timmins, these powers "continue to risk taking the NHS back to the wrong sort of future". $\frac{16}{}$

Beveridge was also clear from the outset that his welfare system would only be sustainable under certain economic and social conditions such as full employment and a traditional male-breadwinner model. ¹⁷

We have long stopped living in that world. Family structures have evolved, life expectancy has increased and expectations have changed too. As a consequence, demand increasingly overwhelms public services, which were designed for episodic needs rather than to address the root causes of such needs. $\frac{18}{}$

Sustainable and modern health-care systems will increasingly have to go beyond treating symptoms and focus on the causes as well. These are complex and rooted in an individual's biological, lifestyle and environmental context. True health care is not episodic but continuous and can only be done with the individual, not to an individual. It moves services from transactional exchanges to being much more about the relationship between patient and carer. ¹⁹

Focusing on the causes of ill health will require engaging with other public services such as housing and employment. It may also involve more widespread partnerships with private and civic organisations outside the NHS to benefit from a broader set of insights, resources and capabilities.

This complexity and the inherent need for collective responsibility with citizens make a one-size-fits-all, centrally planned health-care provision increasingly unsuitable. Centralisation – once seen as essential to ensuring the quality of services – has become its greatest enemy.

Hilary Cottam, honorary professor at the UCL Institute for Innovation and Public Purpose (IIPP), describes examples of what relational care might look like in practice designed around true need, not bureaucracy. "We know that we can't face the future in the same way we have been doing. We can't plan another re-organisation or hope we can bid for some new pot of funding and carry on. With others in our community, with like-minded leaders, we must open our imaginations to a radically different set of future possibilities." ²⁰

More money alone will therefore not lead to a sustainable and modern health-care system. Nor will stronger accountability and control from Whitehall. Instead, we need to urgently rethink how we bring about change in a post-Beveridge and Bevan world to better balance autonomy and accountability in an ever more complex context. In other words, we need a new public-sector reform model that allows for a relational welfare approach. We can't just assume it will happen.

This paper advocates a move away from the monolithic, top-down accountability system driven by an overreliance on targets, plans and direct interference in care provision. In its place, we should develop a system that relies increasingly on horizontal and relational accountability mechanisms such as peer-to-peer, patient-to-carer and participatory democracy.

A new compact between citizens and the state is possible today because of better technology, data and strong evidence that participatory democracy has a crucial role to play in shaping public policy. But we also now know more about what the centre can do well and what must be left to localities. And we know much more about the relational and cultural aspects that stifle or enable innovation.

An intelligent system of accountability powered by technology and participation should therefore be our guiding principle and help us transition to the health care of tomorrow.

This is not to say there is no role for the centre or that the state should retreat. Instead, lifting the pressure from central government frees Whitehall to focus on where it can genuinely add value, rather than get in the way.

A national health service coordinated, funded and enabled centrally has considerable advantages over more federated systems. Concentrating efforts on enablers such as clinical and managerial standards, a modern data and digital infrastructure, including electronic health records in all care settings, workforce planning and an appropriate innovation strategy should be where the energy goes. The Covid-19 pandemic demonstrated how important national coordination can be, for example, for the development, procurement and rollout of vaccines. In some cases, reconfirmation services also require scaling and central coordination, as the example of hyper-acute stroke units in London illustrates. $\frac{21}{2}$

The centre matters, but its role needs redefining. In the same way that new technologies enable us to move away from a one-size-fits-all health-care provision, it also provides an opportunity to create a modern public-service reform model beyond command and control.

Looking Through the Crack in the Wall

What will the future of health and social care look like? We don't entirely know and it would be futile to predict its precise form. However, several general trends are already visible and likely to shape the health care of tomorrow.

Glimpses of the Future

In the United States, the Staten Island Performing Provider System (SIPPS) is housed in an unremarkable grey office block overlooking The Narrows and Lower Manhattan in the distance. It is a collaboration of 70 hospital, mental-health, primary-care, social-care and community providers that serve the 500,000 citizens of the borough.

Around a third of the local population is covered by Medicaid, the means-tested, state-run health-care system in the US. In 2014, the Centre for Medicaid Services (CMS) that administers the programme incentivised systems around the US to transition from paying for volume to paying for value or outcomes. The SIPPS was one of those systems and had been on this journey for four years.

The data showed that more than 50 per cent of potentially preventable A&E visits were caused by only 5 per cent of patients. Asthma in children became one of a handful of priority areas. When the 119 unique individual "super-utilisers" were identified, home-visiting teams worked with families to improve inhaler techniques, medication adherence and provide culturally appropriate education in the family's primary language. Collaboration between school nurses and paediatricians was facilitated. This led to the development of asthma "action plans" to facilitate prompt treatment when an asthma attack occurred during the school day, avoiding an unnecessary transfer to A&E. Equally important, however, was the focus on non-medical interventions. The teams facilitated pest treatments and mould remediation (both primary asthma triggers) at home, and they purchased vacuum cleaners and mattress covers for households with discretionary funding. In just 18 months, hospitalisations dropped by 70 per cent and A&E visits by 25 per cent. To sustain this work, trainee physicians now receive education from the American Lung Association to spot frequent utilisers and deploy the programme, with 12 certified asthma educators trained for primary care offices.

Nearly 800 miles west, on the shores of Lake Erie, lies the city of Cleveland. Ohio, once an industrial superpower, has experienced profound economic and social decline but it has been fortunate to reestablish its place on the map as the home of one of the most prestigious medical centres in the world. Founded in 1921, the Cleveland Clinic today employs more than 70,000 staff worldwide and is renowned for its strong innovation focus. Visiting the main site is like walking through medical history. A

visitor might stumble upon pieces of silicon that resemble a three-dimensional jigsaw. These are the model parts of Katie Stubblefield's jaw, a young woman who suffered horrendous gunshot wounds to her face in an attempted suicide. A medical team comprising practitioners from no fewer than 15 disciplines used 3D printing and 3D visualisation based on images of Katie's head to prepare for reconstructive surgery and eventually a face transplant. Making mistakes and training on the silicon parts rather than the actual tissue and bones enabled the surgical team to rehearse the operation. On 4 May 2017, in a surgery lasting 31 hours, Katie received her new face and a second chance in life.

In the UK, the School of Public Health at Imperial College London announced a collaboration with SomaLogic to establish a Centre for Excellence in Proteomics and Cancer this March. ²² Genes rarely change but the expression levels of the proteins they encode do, which offers the prospect of monitoring how we can alter our life chances in real-time. The research programme's first-phase focus is on the search for predictive biomarkers for cancer and other chronic diseases, with a special focus on the discovery of potential new early-detection markers. Future proteomics studies at the clinical level may be conducted to better understand the side effects of chemotherapy, particularly for breast cancer. Adverse cardiac events are a significant risk of this kind of treatment. We know the average risk but understanding it in real time for an individual as they undergo treatment significantly improves patient safety. Our lifestyles alter our gene-expression levels: how exactly and how much this affects our health is still to be revealed. Observable behavioural-health feedback loops may offer ways to finetune treatments and incentivise lifestyle changes in ways that simple digital-tracking devices often fail to do.

Personalisation and Democratisation of Health Care

On one level, these are three very different examples of innovation in health care. Mattress covers and proteomics may seem worlds apart in terms of their impact and sophistication. Equally, as of 2018, just over 40 face transplants had been performed worldwide, making this a very rare medical intervention.

Yet what connects these examples is much more profound and represents a seismic shift in how we should look at health care.

All three examples depart from a rigid, one-size-fits-all model of medicine. Providing non-medical interventions in Staten Island is a form of personalised care that begins to address the root causes of ill health even if they are not medical. Similarly, being able to scan and print parts of the body is truly patient-centric. A prosthesis that only fits you. Understanding not only our genome but also our proteome is currently at the frontier of personalised medicine. It is shaping how we treat cancers, including offering tailored drugs to specific tumour types, and may help us understand the highly personalised response to diets, environmental factors and broader lifestyle choices.

At the same time, these examples demonstrate a second important trend: the move away from a reactive, centralised and sickness-oriented model. Analysing population-level data to identify households with the greatest need and reaching out to them to avoid hospitalisation in the first place is proactive and preventative care. Similarly, 3D printing is cheap and readily available in various settings outside traditional hospital walls. Printing insoles at home will be technically feasible, as will be assembling bespoke prostheses in every care setting with access to a printer, thus cutting out an entire supply chain. Virtual consultations using visualisation or monitoring tools enable remote access to cutting-edge knowledge outside centres of excellence and across borders. Providing patients with personalised knowledge about their current health status and the likely impact of modifiable behaviours on their future health, monitored by wearable devices, can empower and potentially motivate people to take action.

These trends can broadly be summarised as the personalisation and democratisation of health care. Personalised because this focuses on a person's contextual and physiological needs. Democratised because it is increasingly accessible outside traditional care settings closer to home while breaking up knowledge monopolies. In other words, patient-centric care that truly wraps around an individual.

Personalisation and democratisation have implications for a range of health-care aspects, including medical knowledge, medicines, technology, the locus of care and advocacy. Figure 1 provides examples of the type of impact. Some of these are near term (for example, the NHS is rolling out Community Diagnostic Hubs that shift activity away from the hospital into the community), and others are still aspirations for the future (such as automated medical assistants $\frac{23}{}$). This is a rapidly expanding field outside the remit of this paper. $\frac{24}{}$

The Likely Impact Is Significant But Needs Shaping

Some of the advances we are likely to see will help us make our existing health-care system more effective, sustainable and impactful. There will always be sickness regardless of how fast technology and science move us forward. But personalised cancer treatments offer the potential to extend lives and even cure disease. Moving more care closer to home might reduce costs and inconvenience.

Other advances have the potential to take us towards a very different future. In that world, health care focuses more on anticipating needs and keeping people healthy in the first place (predictive and preventative), reducing the demand for costly interventions. Health care stops being the sole domain of care professionals and becomes part of the complex web of peoples' daily activities, with patients actively taking part (participatory). Co-design and co-production, concepts that have been considered, become increasingly feasible and meaningful as a result of advances in technology and data analytics. This will profoundly impact the quality, safety and affordability of services, and how they are delivered.

However, realising the potential of personalisation and democratisation is not inevitable. Health care is a notoriously late adopter not least because of its aversion to high risk. Path dependency is therefore very strong, mitigating against rapid change. Many new technologies or procedures take decades to be adopted in medical practice even when there is strong evidence.

Personalisation and democratisation also carry risks such as the impact on equality and access. This needs to be understood and mitigated.

Government is essential in incentivising and facilitating this change as well as mitigating any risks. Policy can help or hinder the transition and a system of accountability is a crucial element of any public-service reform model. This paper shows how technological advances can enable a modern health-care and public-service reform model that will make these changes more likely to happen – and faster.

Figure 1 – Selective examples of personalisation and democratisation in health care

Personalised (for me) Democratised (with me/near me) Potential + Smaller cohort sizes (e.g., highly tailored + Impact on life expectancy. fiscal cancer drugs). - Mass-market production of diagnostics impact (+/-+ Impact on life expectancy. reduces unit costs. /? cost increase/ - Better risk stratification leads to more - More effective prevention through decrease/ targeted screening and earlier better engagement. uncertain) interventions. ? Participatory budgeting. - More effective prevention over time. Knowledge Advances in genomics and proteomics $\frac{25}{}$ More accessible knowledge at the citizen level empowers people to take more allow for a greater understanding of control of their health and rebalances the individual risks (e.g., polygenic risk power between citizen and care scores $\frac{26}{}$) across a life course. professional.

General risk stratification of patients via electronic patient record (EPR) data enables preventative and predictive interventions at a much more granular level.

Automated medical assistants help patients and care professionals with the exponentially expanding volume of data and knowledge that cannot be processed by a human anymore and are rapidly out of date. $\frac{27}{2}$

Medicines

Cell and gene therapies highly personalised to individual circumstances (e.g., CRISPR CAR-T therapies).

Sharing of what works in practice through real-world data rather than stratified trials (e.g., democratised patient platforms such as Patients Like Me). $\frac{28}{}$

Technology

3D printing increasingly enables custom-made organs, $\frac{29}{30}$ skin $\frac{30}{30}$ and prostheses.

Growing human organs in animals (e.g., recent pig-heart transplant). $\frac{31}{}$

Digital twins enabling personalised-care planning. $\frac{32}{}$

Wearable technology test devices for athome use (e.g., sexual-health vending machines $\frac{33}{}$, Moorfields high-street services in ophthalmology $\frac{34}{}$, Covid-19 lateral-flow testing and home HPV tests). $\frac{35}{}$

Digital infrastructure to share and access patient records anytime, anywhere.

Locus of

Different modes of access to care (e.g., video, phone or email depending on personal circumstances).

Hyper-local interventions seen during Covid-19 (e.g., health check-ups on the back of a positive Covid test or vaccination programme to find disadvantaged or Greater degree of participation (cocreation and co-production) in health, shifting the balance away from care providers towards the individual/family.

Decentralised diagnostics (at home or on the high street); Community Diagnostic Centres. $\frac{36}{}$

disenfranchised groups) based on risk stratification.

Moving beyond hospitals through virtual wards/remote monitoring/virtual hospital. $\frac{37}{}$

Access of expert care via telemedicine, outside centres of excellence (rural areas/low-income countries).

Advocacy

Science such as omics enable near realtime feedback loops between personal action (dietary or exercise) and risk factors.

Patient groups such as Patients Like Me platforms enable global voice.

Direct control of personal data from platforms such as Patients Know Best ³⁸ (including bio-bank contributions) and organs.

Personal budgets to respond to individual needs. $\frac{39}{}$

Potential to sell personal data directly for clinical trials or other applications.

Greater engagement on a personal level will increase the scope for greater involvement in care design; methodologies such as deliberative democracy ⁴⁰ have proven to be highly effective.

Understanding which medical intervention is suitable through democratic platforms such as Choosing Wisely $\frac{41}{2}$ and Right Care Alliance. $\frac{42}{2}$

It's in the DNA

A central question is whether we have the right policy levers to move towards a post-Beveridge and Bevan health-care system that returns to Beveridge's original ambition to be about prevention too. So far, the track record is not promising. Successive health-care reforms have not been able to reverse the challenges set out above and we are rapidly running out of time.

What Is Getting in the Way?

The answer lies in the very DNA of the NHS. Command and control from Whitehall was a crucial building block of the health service in 1948. The centralisation agenda of the 1940s saw activities such as hospitals, transport and utilities come under state control. Some of these were owned by the government, while others were nationalised.

But the story of command and control in the NHS is one of two halves, as Rudolf Klein describes in his "NHS at 70" essay. ⁴³ For the first 30 years, Whitehall lacked the means to exercise effective control. There was little meaningful data and the main lever was the funding level set by the government. In the following 30 years, all this changed at a time when many other industries were moving away from centralisation, relying increasingly on market forces. Widespread use of information technology meant the NHS could collect performance measures systematically for the first time. More data also led to intense media interest and subsequent political pressure. This reinforced the need for ever-greater central oversight and led to "the dramatic change in the culture of the NHS over the decades – from the dark ages of steering without an up-to-date map to the new era of restless searchlights illuminating the landscape," according to Klein.

The core principles of the NHS were at least twofold. First, equal access across the country for every citizen. Second, free access at the point of care based on need rather than the ability to pay. The underlying assumption was that central control of the system would ensure strong political accountability – to the sound of bedpans dropping across the country. Whitehall, as a sophisticated planner, could direct activity in every corner of the NHS. The political need for strong accountability was unsurprising given the ever-expanding NHS budget.

As Baroness Onora O'Neill observed in her 2002 Reith Lecture on the accountability of public services, "central planning in the Soviet Union may have failed, but it is well and alive in the NHS". 44 The five-year plans and annual planning guidance of the NHS bear a strong resemblance to those of the USSR, 45

where Soviet managers worked in a target-driven culture, with the central Politburo setting the broad direction of travel and planners setting local quotas. All too familiar to those working in the NHS.

The urge to reach for the "long screwdriver" remains the modus operandi in Whitehall despite rhetoric to the contrary. This is reflected in the leadership culture of the NHS. Responding to templates, incentive schemes and Whitehall's requests for more and more plans is the NHS's comfort zone and how senior management is rewarded. While there is a sense that change is needed, progress has been understandably slow and inconsistent in the absence of a coherent alternative.

Nowhere is this more apparent than in the integrated care systems (ICSs). The 42 ICSs are the most recent attempt to drive local integration across NHS services, social care and public health. They have a legal duty to collaborate and are supposed to pave the way for more local autonomy. The direction of travel is laudable and a clear sign that Whitehall recognises the impossibility of controlling the NHS from the centre.

And yet, the newly appointed CEOs of the ICSs have been met with hundreds of pages of detailed guidance $\frac{46}{}$ on how to do their jobs, including 26 pages of implementation guidance on how to work with people and local communities. There is also little evidence that system-leadership $\frac{47}{}$ skills, as opposed to organisational leadership, featured much in the selection process for these roles despite the obvious need. Continued tight central management of the ICSs – whether formally or informally – runs contrary to the spirit of granting greater local autonomy to innovate. Pockets of excellence are emerging within the ICS community, but they are making progress despite the prevailing culture, structure and processes.

The Limits of Top-Down Accountability

It is necessary to hold the NHS to account. Public accountability is essential for a well-functioning democracy. The argument is not whether to hold to account or not, but the type of accountability system most suited to the challenges at hand. "The processes of holding to account can impose high costs without securing substantial benefits. At their worst, they may damage performance of the very first order tasks for which they supposedly improve accountability." ⁴⁸ There is now clear evidence that this is the case for the NHS.

First, while evidence shows that targets drive performance, particularly when combined with additional funding, they can also fail to lead to fundamental service transformation and have unintended consequences such as gaming of statistics. ⁴⁹ A&E waiting-time targets, imposed in the early 2000s, led to a reduction in waiting time and increased overall public satisfaction with the NHS. However, the targets did not fundamentally address the inherent weaknesses in the wider system and diverted attention and energy. Michael Barber, who was instrumental in setting up the Prime Minister's Delivery

Unit, acknowledges the limits of targets: "You can mandate adequacy, but you cannot mandate greatness; it has to be unleashed." $\frac{50}{2}$ Targets help to establish baseline performance; they do not transform a public service.

Second, the core NHS principle of equality is a mere illusion both in terms of access to services as well as outcomes. There is significant variation within NHS provision across the country and within ICSs as the evidence of the NHS Getting It Right First Time (GIRFT) programme illustrates. GIRFT collected data on clinical practice across the country and compared different regions in a statistically meaningful way. Unfortunately, most of this data is not publicly available and the extent of the variation is therefore invisible to the wider public.

There is also significant variation in outcomes. As Sir Michael Marmot – who has studied health inequality for many decades – has found, "catch the Jubilee line east from Westminster and life expectancy drops one year for each station (for about six stops)". Ten years after his landmark report on health inequalities, things have got worse and inequality has increased across regions. ⁵¹ Different areas face different challenges and while universal access is crucial, it is not enough to ensure equality in outcomes. A part of this variation is down to divergences in the provision of public services, such as the NHS itself.

Maybe this is not surprising given the differences in funding across the NHS, which were never based on true population need and instead often driven by political considerations dressed up in the technical design challenges of a fair-funding formula. The increased share of public funding allocated to the NHS makes it ever harder to find resources for the wider determinants of health such as employment, housing and education. The political gain from more money for the NHS nearly always outweighs that from investing in medium- to long-term prevention. One way to address this tension is to continue funding the NHS at the national level but allow for greater autonomy of how this money is used locally.

Third, the assumption that, in a national system, scaling of best practice or the introduction of new treatments is easier through central control is not borne out by the reality on the ground. The UK is slow to adopt new medicines and changing clinical practice can take decades. ⁵²

Again, this is not surprising. Innovation in health care is not typical, $\frac{53}{}$ not least because it is fundamentally a social process. $\frac{54}{}$ Half of all great ideas in general fail $\frac{55}{}$ and, as economist Tim Harford observed, "perhaps the mystery is not that ideas often fail to scale. The mystery is that we ever convinced ourselves that they should." $\frac{56}{}$

However, some ideas do succeed and scale. The factors that make these policies and products spread are not conducive to a command-and-control model. ⁵⁷ They include charismatic and often unique leadership, a degree of serendipity, permission to tailor programmes to local circumstances and an appreciation that operational or clinical change requires people to change the way they work or behave.

In contrast, in a highly centralised NHS, for those based in areas with local autonomy having to adjust ideas to local circumstances can be extremely hard, and incentives such as reimbursement or contracts are often not aligned.

Finally, a command-and-control model runs contrary to the essence of the personalisation and democratisation narrative. Health care increasingly focused on individual biological and socioeconomic circumstances and provided closer to home makes central control ever more meaningless. Health care more than sickness care requires the active engagement of citizens in co-producing their health, which in turn will require a deep understanding of communities and their circumstances. This complexity is inherently unsuitable for centralisation, beyond setting minimum standards and providing fundamental infrastructure.

Beveridge anticipated some of these challenges when he said that "the State in organising security should not stifle incentive, opportunity, responsibility; in establishing a national minimum, it should leave room and encouragement for voluntary action by each individual to provide more than that minimum for himself and his family". ⁵⁸ This is not only true for the individual but also for those working in the NHS. A command-and-control model has its place (for instance, during a pandemic, as the successful Covid-19 vaccination campaign has shown, or in setting core-care standards) but crucially it also discourages entrepreneurship, critical thinking and learning.

Beyond Command and Control

The insight that centralisation has considerable downsides and inhibits significant transformation is not new. However, previous attempts to reduce top-down micromanagement of the NHS have had mixed results.

Since the conception of the NHS, subsequent governments have sought to change the shape, size and performance of the health service by expanding the set of levers at its disposal. ⁵⁹

The Cabinet Office summarised a core set of levers in the 2006 model of public-sector reform: 60

- 1. Top-down performance management: regulation and standards, performance management and inspections, direct investment and outcome targets.
- 2. Market incentives: competition and contestability, commissioning services and provider/commissioner split.
- 3. Bottom-up, user-shaping services: choice and voice, co-production.
- 4. Capability and capacity: leadership, workforce development and organisational development.

All four groups of levers provide a form of accountability; however, they operate in very different ways. For example, market incentives and, to some extent, patient choice aim to capture the advantages of market forces to drive performance as much as possible given the inherent market failures in health care. In contrast, top-down standards and performance management address these market failures more directly through government interventions.

In practice, different governments have put more or less emphasis on individual levers in accordance with their wider ideological narrative. The 1970s saw the introduction of initial performance indicators (top down). The 1990s established local fundholding (internal markets).

The first decade of the 2000s saw a number of policy experiments, including the introduction of patient choice and voice (bottom up) as well as a strong focus on quality improvement (capability and capacity). In addition, high-performing hospitals were offered greater autonomy through the introduction of foundation trusts. To reduce waiting lists, Independent Sector Treatment Centres (ISTCs) were introduced, run by organisations outside the NHS. ⁶¹ The government set up a Delivery Unit at the heart of Whitehall to oversee a number of Public Service Agreements (PSAs) across the public sector including the NHS to ensure that "increased investment in public services was linked to modernisation and reform". ⁶²

In one of the largest restructures of the NHS, the 2012 reforms sought to put primary care at the centre of commissioning. At the same time, the wider public-service reform agenda of the "post-bureaucratic age" sought to put an end to the monopoly of the "wise men in Whitehall". ⁶³ A decade later, the commissioner-provider split (internal market) was abolished altogether in favour of greater local integration of care while also returning more direct power to the secretary of state for health and social care.

The Role of Markets

The evidence on the relative merits of these reforms is mixed and incomplete. The most researched aspects concern the role of markets and, in particular, competition and choice and the impact on the quality of care.

Competition may impact quality through two different avenues.

First, government may allow market entry for certain services where it believes quality is poor by effectively re-tendering provision (more contestability of services as the political and fiscal cost of closing a provider is extremely high in practice).

Second, assuming there are providers or clinicians to choose, patients may be able to drive quality improvements by picking who will provide their care. Harvard Medical School's Donald Berwick and

colleagues refer to this as improvement through selection. ⁶⁴ Choosing the best provider or clinician will help improve the population's health as patients get the best or better care available. However, it may also drive changes in the average quality of services as providers or clinicians become more motivated to improve the care they provide, which Berwick calls improvement through changes in care. In theory, therefore, choice can drive performance and is a form of accountability that could alleviate the need for centralised control.

Initially designed as an electronic booking system in 2005, the NHS Choose and Book service gives patients choice over their hospital (but not clinician). At the same time, the "payment-by-results" reimbursement system was meant to show money following patient choice by paying providers for each patient. However, the choice agenda was not accompanied by easily accessible, high-quality information that would allow patients to make informed choices about care quality.

In practice, the impact of these policy changes on care quality is hard to measure directly. An international summary of evidence from 2011 suggests that a broad definition of competition is positively associated with better outcomes, lower costs and greater efficiency, but may have had a negative effect on access and equity. At the same time, there is little evidence about the impact on aspects such as safety, patient choice and, maybe surprisingly, the degree of innovation. ⁶⁵ A more recent summary of UK evidence finds some positive effects, particularly from the introduction of Choose and Book. ⁶⁶

The primary challenge with these studies is the highly heterogeneous nature of health care. It is not one business or service but many.

For example, competition of relatively standardised and high-volume services such as physiotherapy may improve quality if patients are able to observe differences in quality among providers and act accordingly. In contrast, a tertiary service, such as heart transplants, is extremely complex, costly and effectively carries the attributes of a natural monopoly. Outcomes are difficult to observe, cases are often unique and patient choice is of little relevance given the small volumes and shortage of organs. Market entry is almost impossible. However, transparency of outcomes may still drive improvements through peer-to-peer pressure, a different kind of competition. Transparent and timely data on outcomes is hard to come by for patients in the NHS and, in practice, the Choose and Book system is primarily a mechanism to moderate waiting times rather than the quality of service. Evening out demand for services may, however, drive quality because it reduces workload.

A meaningful choice of provider requires spare capacity in the system for patients to switch. This is why independent treatment centres in the early 2000s were introduced. However, this is increasingly unlikely today given the significant backlog of more than 6 million patients on waiting lists and an acute global shortage of health-care staff in the public and private sectors.

Top Down Through and Through

Market forces and choice are proxy accountability mechanisms that are meant to complement or act as substitutes for direct control from Whitehall. However, while various governments have lost confidence in the efficiency of the state to manage the operational delivery of public services, they have found the main alternative (markets and regulation) wanting too. Part of the reason is the overly simplistic dichotomy of public versus private goods. 67

It is therefore unsurprising that despite the many reforms since 1948, central control has remained the modus operandi. Most reforms were merely adjustments to the top-down model and did not significantly alter it.

Even in the heydays of the internal market and the commissioner-provider split, detailed annual planning rounds and guidance were the norm. In a predominantly fee-for-activity reimbursement system, this has meant yearly negotiations service line by line (for instance, the number of maternity scans, bariatric surgeries or outpatient appointments) for every single hospital in the country. In primary care, top-up payments in addition to mostly population-based budgets are used to direct specific activities.

This is also true despite significant structural changes at the centre of government that sought to put responsibility for the delivery of the health service at arm's length from the secretary of state, most notably through the 2012 Lansley reforms that created NHS England. This didn't stop Jeremy Hunt, who succeeded Lansley as health secretary, bypassing formal structures by calling hospital CEOs directly if they missed A&E targets. ⁶⁸ Similarly, Sajid Javid, the current health secretary, has threatened to name and shame the hospitals that have not dropped Covid-19 visiting restrictions. ⁶⁹

The "post-bureaucratic age" that former Prime Minister David Cameron foresaw in 2007 did not, therefore, come about. The proliferation of information held in the hands of service users may be necessary, but it is not sufficient to reduce the central grip. Reducing the number of managers in the NHS or civil servants in Whitehall is not the same as developing a coherent public-service reform model that responds to citizens having better access to a diversity of public information, whether online crime maps or services derived from satellite images including weather data.

More than ever, perhaps, the buck still stops with the secretary of state. Unsurprisingly, this drives behaviour and culture in the centre of government, the arm's-length bodies and subsequently among the wider NHS. Despite decades of reforms, we have not yet found a credible alternative that safeguards accountability while allowing the necessary autonomy to unleash transformation. When it comes to it, command and control has always won. The ICSs will have to work hard to change this fundamentally. At the same time, there are significant risks associated with NHS England leaders loosening their grip given growing political pressure to improve the performance of the service.

Where Should We Go From Here?

If the first 30 years of the NHS were steeped in darkness and the next 30 years dominated by the cold searchlight for top-down control, the next decade should be about a new contract between citizen and the state leading to smart accountability that doesn't get in the way of change.

Throwing off the shackles of a paternalistic system that thinks on behalf of its users and moving towards a relational and participatory approach will be the main task. It is only then that we can unleash the energy and creativity needed to create a post-Beveridge and Bevan health-care system that delivers high-quality, efficient and safe care as well as makes the UK an attractive place for life sciences and entrepreneurs.

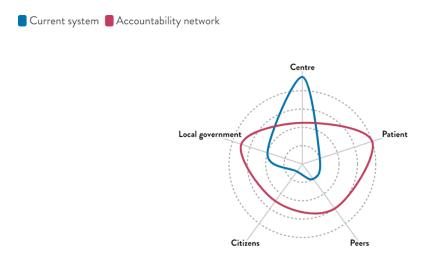
Why now? Because technology and data, as well as the growing evidence on the effectiveness of participatory democracy, can enable a move beyond top-down performance management or crude and costly market levers in a way that wasn't feasible even a decade ago. In addition, we have learned a great deal over the past 74 years about what the centre can do well and what is best devolved. This is therefore not about a retreat of the state but instead about actively redefining its role and broadening its levers. Liberating information is not sufficient – understanding how this affects the levers of government is the real task.

A New Deal for Autonomy and Accountability

If too much reliance on top-down micromanagement is the challenge, a new public-service reform model will have to ensure that greater autonomy does not come at the expense of political and public accountability. Accountability remains essential given the unprecedented funding levels and the concerning trends in health outcomes. It is not about reducing accountability but providing it more smartly.

At the heart of a new model sits an accountability system that goes beyond top-down performance management. It expands to horizontal elements of accountability through peer-to-peer, citizen-to-carer and participatory democracy mechanisms (see Figure 2). Doing so mirrors the essence of personalisation and democratisation that will shape the future of health care itself. It is based on a relational rather than transactional model of public services. It is an attempt to map out a path of how we get from today's health care to tomorrow's by being pragmatic about the existing political realities of a tax-funded national health-care system.

Figure 2 - Moving the NHS from a top-down model to an accountability network with multiple pillars



Source: TBI

This section describes what this path might look like in practice through five specific examples. Together they form an accountability network.

Each of the five examples has merits but they are unlikely to address the enormity of the challenge alone. Their combined impact will make it possible to move away from the monolithic, top-down model that is overly concerned with prescribing change and towards greater autonomy. Some of these are incremental and inexpensive while others require greater effort and legislative and structural changes. This is unlikely to be an exhaustive list.

An accountability system of this kind does not absolve central government from its responsibilities. Quite the opposite. For example, driving comprehensive data infrastructure across the NHS and public health, including the rollout of electronic health records for all health providers, is an essential enabler for the kind of public-service model described here. Recent reviews and government strategies have set out what such architecture might look like. ⁷¹ The focus now needs to be on implementing these proposals rapidly.

Beyond data and digital, the centre should continue to focus on setting minimum standards as well as general market stewardship for innovation and workforce development.

Five Exemplars of an Accountability Network

Exemplar One: Liberate Information

Measuring the impact of the NHS is vitally important given the amount of money it consumes. It is not a question of whether the NHS should have key performance indicators (KPIs) but how we can make indicators smarter and more transparent.

As hospitals were filling up with critically ill Covid-19 patients in spring 2020, knowing how many intensive care (ICU) beds were available at any point in time was one of the most important indicators in the early weeks of the pandemic.

It turns out that ICU beds are counted in three different ways every day. At no point over a three-month period during that spring did these numbers ever match up. Worse, these numbers are submitted to a regional register to feed into regional and national dashboards that are available to NHS England on a routine basis (this data showed that at the beginning of the pandemic, there were five times fewer ICU beds compared to Germany). Incredibly, those collecting the numbers, including the clinical commissioning groups (CCGs), did not have permission to view their figures. They had to ask NHS England for permission to use their own daily situation-report (sitrep) information for the local "Covid Gold" command centre.

It also became increasingly clear that no one centrally was paying much attention to this data prepandemic. There appears to have been no attempt to resolve the apparent discrepancies in the data because they were not used to derive actionable insights. Different parts of the system collect data over time in a seemingly uncoordinated way. The same was true locally. Hospital systems struggled to get an agreed view on their overall capacity. The basic means to account for inventory accurately across a system were absent. Imagine a hospitality company not knowing how many beds there are in its chain of hotels.

The NHS is one of, if not the most, data-rich public services and yet it lacks insight.

Data collection is not free. Data is overly suggestive of accuracy. Data can easily be manipulated.

A modern approach to performance management will therefore have at least four elements:

Making better use of routinely collected data: As the NHS is moving towards ubiquitous use of
electronic health or patient records across health-care organisations, more data is available in a
digital format and routinely collected. This real-world data offer opportunities to monitor clinical

performance, and merge additional information such as cost or wider socioeconomic data as well as patient-generated information from smart devices.

Most importantly, it takes us closer to focusing not just on inputs but increasingly outputs and – over time – outcomes. This will create space to generate local solutions for local challenges and priorities, ensuring that everyone is aiming for the same overall objectives such as reduced mortality or healthy life expectancy.

In addition, using routinely collected data to generate insights will also help improve data quality. Data quality will only improve if we use the data in a meaningful way and liberate them from sitting in a warehouse. This will become more impactful if patients are reconnected with their data. Unleashing an army of more than 50 million data cleansers to fix or move incorrect and incomplete data will revolutionise the quality as well as the use of health-care data in a way that only a national health-care system can. We saw the power of this when the NHS asked clinically vulnerable patients to shield during the first wave of Covid-19. Many records turned out to be inaccurate or incomplete. The system can be supposed to the power of this way that only a national patients to shield during the first wave of Covid-19. Many records turned out to be inaccurate or incomplete.

Greater use of real-world data will become increasingly indispensable for monitoring the outcomes of expensive cell and gene-therapy drugs, which NHS England and the Treasury should consider as part of the Innovative Medicines Fund. These revolutionary treatments often target small cohorts of patients (some of whom are curable) and therefore demand high upfront costs. However, they don't work in all cases. Paying for successful outcomes rather than just for the use of the drugs is one way of addressing the affordability challenge of these drugs. Given the richness of NHS data, it is an opportunity for the UK to lead the world and support the NHS as an attractive place for the lifesciences industry.

- Moving beyond NHS data: The advancement of digital technologies has vastly expanded the availability of health and lifestyle data beyond what is collected at routine appointments in health-care settings. Additional information is captured on smart devices by patients themselves. These devices are becoming more affordable and clinically meaningful. The Mowever, this information currently sits outside most EPRs and interoperability remains a significant challenge. Incorporating the information systematically into patient records will not only improve care by providing longitudinal date on heart rate, sleep patterns or blood pressure, for instance, it will also help monitor the efficacy of treatments and contribute to smart-performance measurement.
- Democratising best practice: The use of routinely collected data will become more powerful if
 overlaid with best-practice guidance. What if we could routinely audit whether cohorts of patients in
 an ICS had received National Institute for Health and Care Excellence (NICE) best-practice care
 for diabetes? What if we could see how many unnecessary procedures had been carried out by a
 care provider?

GIRFT $\frac{74}{}$ and several other audit tools such as Green, Recycle, be Aware, be Sustainable for our Patients (GRASP) $\frac{75}{}$ are examples of such an approach. Similarly, some local clinical-effectiveness groups use ad hoc care audits to identify care gaps. However, this is some way off from becoming a routine and automated practice, hardwired into local-data knowledge systems that can deploy the full power of machine learning and other analytical tools.

A key barrier to moving faster is how best-practice knowledge is currently managed. For example, NICE guidance is predominantly published as static PDF documents on a website. Moving this to a dynamic knowledge-management system that allows third parties to digest the information in a digital format and feed into a range of applications, including data audit or decision support tools, would constitute a quantum leap. NICE is not alone in this challenge; this also applies to other sources of best practice such as Choosing Wisely ⁷⁶ or Cochrane Reviews, ⁷⁷ which have similar limitations but provide a good source of best-practice benchmarking. Once digitally liberated, this data can flow into third-party applications by medical-publishing houses or analytics providers as well as local NHS business intelligence and analytics teams. As we will see shortly, this also helps empower patients in new ways to hold their caregivers to account.

• Focusing on fewer, more meaningful measures: There is currently no consensus on what to measure. For example, despite a significant focus on patient safety following several high-profile care scandals in the NHS, agreement on a defined basket of baseline measures is not available. A performance measure amnesty across the NHS is overdue. This should include a requirement to justify why certain data is collected, how they are being used (if at all) and what the costs (fiscal and opportunity) are. No indicator should be collected or derived unless there is a clear purpose and evidence that connects the indicator with a meaningful care or performance outcome that genuinely matters (to the NHS or patients) while each measure should have a clear review point to check whether it is still needed (what happens if we stop collecting this data?). Most importantly, more indicators should capture outcomes rather than inputs and outputs.

The Vital 5 framework developed in south London focuses on the five measures of blood pressure, weight, smoking, alcohol consumption and common mental-health conditions. It provides a promising starting point despite its focus on inputs rather than outcomes. ⁷⁸ It is simple and evidence-based and we should be able to gather the information from routine NHS data. This could be easily expanded. For example, incorporating these measures into the NHS app or linking it with approved third-party digital applications might provide more direct and personalised nudges. This could then be augmented with user-generated information from smart devices such as watches.

Exemplar Two: Innovate Through Learning

Smarter performance management is essential to improve the existing accountability system. However, it is not sufficient to unleash transformative change in complex systems such as health care. For this to happen, a culture of systematic learning is required.

"We should be talking more about the concept of imperfect leadership: to admit uncertainty and create learning paths for the larger system to find the solution", $\frac{79}{}$ according to former Finnish politician, Olli-Pekka Heinonen. He has been instrumental in shaping Finland's education system, widely regarded as one of the best in the world. Decisions are devolved to communities and teachers with a strong focus on learning and perpetual improvements. Targets play a minor role. Daring to fail and feeling comfortable with making mistakes is a strong theme that runs through this approach. $\frac{80}{}$

The Finnish experience is simultaneously inspiring as well as exhausting, hard and scary. Years under a top-down model have primed many of us to feel obliged to have answers. Admitting to not having all the answers is difficult in the current climate. Being fallible is not part of most civil-service or ministerial-job descriptions. Instead, continuous experimentation of the kind pursued by the "humble government" approach ⁸¹ in Finland can lead to excellence in a way that structural changes and a target culture struggle to do. However, it is interesting to hear that health care in Finland has not yet gone down the same path. One of the reasons is that medical training is focused on traditional hierarchical structures and a strong culture of risk aversion. Context matters, even in Finland.

This raises the question as to whether health care is unsuitable for a learning culture. Was Onora O'Neill right in saying that "we are heading towards defensive medicine"? This would assume an inability to admit to mistakes and learn, driven by a top-down target culture more concerned with numbers and potential for a legal challenge 82 rather than insights.

Elsewhere, there are glimmers of hope. Over the past 20 years, colleagues in the Tuscan city of Pisa at Sant'Anna University have persisted with a different approach. Italy, like the UK, has a centrally driven target model that focuses on naming and shaming underperformance. Following Michael Barber's principle that targets move health care, at best, to adequate but never to good or outstanding, the team at Sant'Anna created a benchmarking network that now covers half the country. The network is mandatory for Pisa, but nine other regions joined voluntarily because they have seen that it provides more value than the national performance system.

In practice, organisations measure around 500 indicators across medical domains. The data get curated by the Sant'Anna team and are discussed regularly among clinical groups to learn from each other. The focus is on celebrating the best and the approach is based on reciprocal altruism. Naming and framing, rather than shaming. 83 Gaming is more difficult with many eyes on the data and there is much to lose in

a peer-to-peer network. The approach has led to improvements in care as well as costs. ⁸⁴ Finding the right level of devolution is a crucial enabler for a collegial system of competitive benchmarking. ⁸⁵ Regions must be large enough to enable meaningful comparisons but not too large to allow strong personal relationships to persist. Those closely involved in the Italian model suggest that the right size is somewhere between a population of 3 and 5 million people.

The Buurtzorg Nederland community-care model in the Netherlands is an example of self-managed teams outside traditional hierarchies. ⁸⁶ At the core of this model is the principle that the complexity that community carers find in their patients' homes needs to be reflected in how they organise their work and organisation itself. This encourages a different form of accountability based on coaching rather than line management; support rather than control. Frederic Laloux's *Reinventing Organisations* contains more examples of how organisations have organised in new ways to better respond to challenges.

The argument has been made that NHS culture resembles a military rather than a civilian organisation. Team of Teams ⁸⁷ offers a powerful insight into what happens when a traditional hierarchical structure, such as the US military, starts to break out of silos and work with previously unconnected parts of the organisation. The organising principles are the same: learn and share, and focus on outcomes not organisational boundaries and traditional accountability models.

The Human Learning System group ⁸⁸ has brought together a systematic collection of case studies showing that learning is desirable and necessary to respond to the complexity in today's public services. Several of these case studies set out how this might work in health care including Scotland's Covid-19 response (which is currently being extended to other areas of service provision by Healthcare Improvement Scotland) ⁸⁹ and the South Tyneside Alliance, which aims to integrate commissioning and join up health and care services across the borough. ⁹⁰

The underlying assumption is that cause and effect are hard to disentangle from the more complex context in which the service operates. As a consequence, target-based accountability fails in complex systems. Instead, systems should be switching to dialogue and learning as a valid form of accountability. The case studies also show the merits of shifting the direction of accountability from top down to peer-to-peer. Overall, it proposes to move from "holding to account" to "helping to account". In doing so, it challenges the essence of the "New Public Management" thinking, with its neoclassical assumptions about markets and rational human behaviour that will lead to socially desirable outcomes.

These examples have three things in common: letting go of a narrow, numerical definition of accountability, accepting that complexity means not having all the answers, and providing the psychological safety to reflect and learn.

Moving from command and control to a learning system is the most challenging element of the accountability network this paper advocates. Embedding a humble-leadership culture will take enormous

courage and have a bumpy transition period. At its heart, it will require leaders "to feel comfortable with chaos." ⁹¹ Examples from the UK and abroad point to several specific steps to turn this theory into practice.

First, and most obviously, it will require visible leadership from Whitehall and NHS England. The risk is that learning becomes a "nice to have" but the real incentives are geared towards responding to targets. Learning has to be hardwired into everyday activity. For example, inspection frameworks should look for evidence of embedded and systematic learning. Creating and curating peer-to-peer learning communities with serious incentives to participate is a role for central government. Celebrating learning, as in Italy, will start rewarding honesty. The reestablishment of a Delivery Unit in Whitehall to provide opportunities to make learning an integral part of the work programme – a Learning Unit – would go some way towards this aim.

Second, making the complexity of health care publicly visible will help others understand the system's dynamics and the impossibility of simple answers. The Obesity System Atlas compiled by the Government Office for Science is a great example. ⁹² It maps out the interdependencies of what is driving obesity in a powerful and accessible way that shows there are no easy answers. Tools like this will help to reduce political pressure if amplified in the public discourse.

Third, local health-care systems such as ICSs as well as individual provider organisations need to be optimised for learning rather than control. A pre-condition is to move where possible to measuring outcomes rather than inputs or outputs, as set out above. Creating learning and knowledge-management infrastructure as well as dismantling the control system will be essential. Private-sector organisations such as Unipart Group may offer inspiration for what a modern knowledge-management system looks like in practice.

Finally, learning is hard and currently counterculture for most parts of the NHS. For example, learning for transformation is different from inquiries into poor care. Actively teaching learning as well as systems-leadership skills in medical school and NHS management programmes will help create the right skills over time.

Exemplar Three: Level the Relationship Between Patient and the Care Professional

Smarter performance management and a strong focus on learning are crucial pillars of a new accountability system. However, they are not sufficient. Successful health care relies on patients to play their part. Personalisation and democratisation of care will put more responsibility and opportunity in the hands of patients, so they are no longer passive consumers of health care but active participants. The relationship between patient and care professional has to evolve from transactional to relational. This needs to be reflected and leveraged for a modern accountability framework.

Now it is hard for patients to understand what good health looks like in terms of what care they should receive and which care providers are providing it. This hampers quality improvement more generally $\frac{93}{}$ and direct accountability more specifically. Health care is particularly bad at this. NICE guidance is difficult to find and understand and often not written with the patient in mind. Information is fragmented, dispersed across regulators, disease-specific charities and patient-advocate groups.

In 2012, the north-east London borough of Redbridge embarked on an extraordinary experiment. Around 40 patients and several GPs came together for a series of workshops to develop a transparent way for patients to see whether they had received best-practice care for chronic obstructive pulmonary disease (COPD). The "COPD checklist", as it became known, contained six NICE-recommended interventions presented in an accessible way and in clear language, data from their GP practice to see whether they had received these interventions and information on the cost of COPD care. When put into practice, this simple A4 sheet ⁹⁴ was posted to patients before their GP appointment. An evaluation of the experiment found that care improved for nearly all the 700 participating patients compared to those who had received conventional care. ⁹⁵

This is a powerful reversal of roles; patients were told what good care should look like and asked whether they received that care. Having access to the same information that their nurse or doctor has empowers the patient to hold their caregiver to account. This democratises care and supports patients to become active participants in their care. It incentivises and enables GPs to systematically spot care gaps. Most importantly, it combines available knowledge and data such as existing NICE guidance and patient records; information that currently exists in silos.

To see how much this deviates from current practice, consider the following. The same data audit of COPD using the same algorithm and analytics platform was replicated in north-west London. The outcome was depressing in several ways.

First, the numbers showed unacceptably low levels of adherence to best-practice care. GP data is often poor quality especially as GPs are not financially incentivised to provide certain interventions and record them. However, judging by some of the available outcome data for COPD, it is likely that the data was broadly accurate.

Second, and much more concerning, when offered to present this data back to the specific clinical commissioning group the audit had been run for, the then CCG chair refused, stating that knowing about a problem meant having to take action and there was not sufficient headspace.

It is not hard to see how data quality and care improve if information is in the hands of the patient. There is no hiding place, no excuse. It takes a lot of courage to do what Redbridge did.

Disappointingly, but maybe unsurprisingly, this practice did not stick or scale. Information-governance concerns (the practice only works with patient-identifiable information), ongoing funding (relatively small amounts) and a lack of interest among the regional NHS leadership all got in the way.

As set out in the previous section, a more agile knowledge-management approach by NICE is urgently needed that enables best practices to flow into a plethora of third-party applications. In addition, the evidence must be more accessible. Compare this with the approach taken by the independent charity, the Education Endowment Foundation (EEF). The EEF closed the gap between knowledge generation and evaluation by enabling easy access to practical information about best-practice interventions for teachers. This is exemplary. $\frac{96}{}$

This model does not work for all conditions, especially as health conditions are not neatly segregated for many patients. For instance, around two-thirds of COPD patients have other comorbidities. But imagine if we enabled patients to engage with best practice for some of the most prevalent long-term conditions such as diabetes, COPD and heart failure. Diabetes alone costs the NHS around £10 billion a year. Changing the power balance signals intent to move away from a paternalistic model towards one that actively helps shape policies and services. $\frac{97}{2}$

Redress for poor care might involve aggregating individual data and collecting it into an inspection system or the kind of smart performance-management approach set out above. Transparency of care quality may be a more efficient mechanism to drive improvements than choice of provider, which requires a degree of spare capacity in the system.

Finally, the increasing use of smart devices provides an opportunity to complement information on care quality with data on activity levels or medicine adherence by the patient. Over time, accountability for health and care can run bi-directionally in the spirit of health being a co-production process between patient and care professional. Patients can see what their care should look like and what they have received. At the same time, care professionals have visibility on how patients contribute to their health, such as adhering to preventative activity or care interventions — a relationship of equals supporting each other rather than a one-off transaction.

Exemplar Four: Experiment with Community Investment

Patients are strongly invested in their own health and the health care they receive. What if they could also invest financially in their local health-care system beyond tax contributions?

"Ownership is not a vice, not something to be ashamed of, but rather a commitment and an instrument by which the general good can be served", said former president of the Czech Republic Václav Havel. In 2020, West Berkshire Council issued the UK's first Community Municipal Investment (CMI). It raised

£200,000 on the first day and £1 million overall towards green projects such as solar panels. Of the money raised, 23 per cent came from local residents. ⁹⁸ Every six months since, investors have donated part of their interest back into community initiatives. For West Berkshire, this has been rewilding grass verges. Elsewhere, in Warrington, residents have donated to an adult social-care centre; CMIs have started to reconnect profit with purpose.

Abundance Investment, $\frac{99}{}$ a social-impact investor, has pioneered CMIs and developed its legal framework. Nationally, we save on average £40 to 50 billion annually through ISAs. Linking these savings to local impact is increasingly popular and many schemes are oversubscribed, with amounts invested starting at £5.

The broader impact of these schemes is yet to be fully understood. However, anecdotally there is some indication that CMIs have helped fund green projects in local communities and raised awareness of alternative energy sources while also contributing to behavioural change in terms of energy use.

What if these schemes were extended to health care? What if citizens could directly invest in their local health-care system? This would see the public as an explicit, not just implicit, shareholder in health. Would it drive a better understanding of health in general? Could it even contribute to health-related behavioural change?

Social impact investing in health care is not new. I was involved in one of the first Mental Health and Employment Social Impact Bonds (MHEP) ¹⁰⁰ issued by the not-for-profit organisation, Social Finance, to support people with mental health issues with employment. Since its launch in 2016, the scheme has supported more than 1,500 people with mental illness, drug and alcohol addictions or learning disabilities get back into paid work.

Pre-pandemic, the NHS began to consider alternative ways of raising capital including through community bonds. The chances of success will be highest in areas with clear investment propositions that deliver cashable returns in a reasonable timescale. This is more difficult, for instance, in acute services given the latent demand for care. However, areas with near-term impact, such as a return to the labour market or sickness avoidance, may be suitable as demonstrated by the MHEP. Social care, which requires more investment and is more clearly ringfenced as a service, might be another candidate.

One side benefit of exploring this in earnest is it would require us to articulate health care as an investment in our productivity capacity as a nation rather than purely an expense. This will also have broader implications for overall budget setting, including how to determine the right level of funding as a percentage of GDP. It would particularly strengthen the argument for investment in preventative health and therefore help rebalance away from a sickness model. Weighing up the primary benefits of this approach against unintended consequences, such as further health inequalities, will be essential. If

positive behavioural effects from co-investment emerge, providing free or subsidised stakes in local health-care systems might be worth considering.

It's a radical departure from a purely tax-funded system. It aims to strengthen public engagement in local health-care systems rather than replace national funding or undermine the core principle of free provision at the point of need.

Exemplar Five: Move Towards Genuine Participatory and Democratic Accountability

One of the most prominent counterarguments to greater local autonomy and freedom has been the fear that this will exacerbate postcode lotteries. A core principle of the NHS is that all citizens should have equal access to services regardless of where they live. This is a valid challenge. Any change to how public services are delivered must improve not worsen inequalities.

However, the picture is more nuanced than this.

First, the centralised NHS model has been unable to prevent inequalities as seen above. There is significant variation in access to care, and outcomes and resources are misaligned with local needs. Much of this has been about political decisions on which areas receive more money rather than the centralisation of planning itself.

Second, many other day-to-day public services such as social care, housing, fire and rescue are devolved to local authorities. We expect and tolerate geographic variation in provision because those responsible for decisions are democratically elected based on their stated priorities. Political campaigning is after all about appealing to groups of the population with different preferences and needs.

We are also used to local authorities having to make tough decisions to balance their books. Government grants were cut by 37 per cent between 2009 to 2010 and 2019 to 2020. An increase in council-tax rates made up for some of this shortfall in funding, but overall spending power has decreased by 16 per cent since 2010. ¹⁰¹ As a consequence, many local-authority services have been cut. Constraints on local authority budgets are significantly harder than the NHS. But local authorities have shown an ability to embrace innovation and provide services in new ways. Necessity is the mother of invention. Variation in the scope and scale of local services is the norm.

It is therefore not surprising that the quality and nature of the relationship between the public and local authorities is very different from that between the public and the NHS. Saving the NHS was one of the strongest arguments to justify repeated Covid-19 lockdowns. No other public service saw the nation step outside their front doors every week to show their appreciation.

The argument that greater local autonomy will inevitably increase variation in health is far from certain. In fact, one might argue the opposite.

People's lives and needs don't easily follow the structure of public-service provision, with some provisions provided nationally and others subject to local decision-making. They are complex and messy, and most don't fall into the neat silos of social care, adult services, housing or the NHS. Therefore, there is no conceivable way to address the root causes of ill health unless non-NHS services are part of the solution. Remember the vacuum cleaners for those with asthma in Staten Island?

At the same time, combining existing services is also not good enough. Chris Naylor illustrates this powerfully on BBC Radio 4's Analysis programme which suggests disjointed service provision is the norm, not the exception. Information sits in different parts of public services even within the same local authority. He previously worked in east London as chief executive of Barking and Dagenham Council where he sought to liberate data from its silos and help the council provide more efficient services. For instance, why would a letter threatening eviction be sent to a tenant in rent arrears despite knowledge that the tenant was going through a divorce or had serious health issues?

Devolving some public services delivered by local authorities while keeping others such as the NHS under central control gets in the way of true citizen-centred provision. On the face of it, this is what the Health and Care Act 2022 is trying to address by devolving more autonomy to 42 ICSs that combine NHS and local-authority services as well as provision from wider civic organisations.

The direction of travel is laudable and a small number of areas are starting to show impact, particularly those with a track record of close collaboration pre-dating the ICS, highlighting the importance of leadership and culture over structures. However, many issues need further clarification and attention to maximise the potential of ICSs.

As Claire Kennedy, co-founder of social-enterprise PPL, observes, "there are currently at least two forms of accountability operating in tandem: national regulatory accountability and local political accountability. How to ensure that local people's political voices form part of local accountability and are seen as 'equal' to national regulation is a live challenge across so many local places." 102

Is the legislative provision in the act strong enough to address this tension meaningfully or is it deliberately obtuse? The debate about the role of locally elected councillors and whether they should be allowed to sit on integrated care boards (ICBs) as part of the new ICS structure seems to suggest that the policy intentionally stops short of genuinely transferring power to the ICSs. $\frac{103}{100}$

There are four specific areas in which we would benefit from going further, faster.

First, funding drives behaviour. In order to transition from sickness care to preventative health, the NHS reimbursement system within ICSs must move away from activity-based funding towards paying for

pathways or outcomes. Creating the flexibility to spend money on what's needed, not what has always been procured. Multi-year population-based budgets are common among the successful international ICSs in countries such as Germany and Spain.

In the first instance, ICSs will transition to fixed block-payment arrangements for providers to deliver an agreed level of activity in 2023. Policy intention is to make room to pool or align funding across different organisations. However, block contracts, while reducing the administrative burden and providing financial certainty, do not necessarily incentivise transformation in the way that value-based payment systems with an element of risk-sharing between payer and provider do. Putting effort and investment behind developing progressive-payment models, including the necessary data and actuary skills, should be a key priority to drive innovation and financial accountability in ICSs.

Second, power transfer in the current ICS model remains incomplete. Accountability continues to sit firmly with the health and social care secretary. ¹⁰⁴ It is therefore likely that direct interference from Whitehall of the nature set out above will continue, especially considering that the Health and Care Act returns more power to the health secretary. A more radical transfer of power may not be easy but is most likely necessary to complete devolution.

The devolution agreement for Greater Manchester, which gives the combined authority partial control of a £6 billion health and social care budget in partnership with NHS England, provides the obvious test case to understand how far an incomplete devolution will take us. ¹⁰⁵

Third, it is not obvious that integrating existing parts of the system will make the whole greater than the sum of its parts. Much of what a modern health-care service should look like in the true sense of the word has yet to be invented. Many of the components are there such as new technologies and scientific insights. Assembling these into a coherent and meaningful service will take effort and skill. Assuming that combining today's NHS and local-authority capabilities and structures into an ICS will suddenly generate the necessary creativity to develop a health-care model is a giant leap of faith. It raises questions about the right professional skills and training (for example a workforce focused on proactive, relational and technology-driven health care) as well as the broader architecture (the right level of aggregation of ICSs and LAs).

Finally, more devolution requires us to become comfortable with differences in need and preference across the 42 ICSs. Accommodating these differences and translating them into actual service design and provision will help us move towards a more personalised public-service model. This may be guided by a small set of minimum outcomes that have to be achieved, which are transparent and set centrally. Everything else is determined locally.

However, while devolving more decision-making, budgets and accountability to local areas are necessary for greater freedom to innovate, it is not sufficient. The legitimacy of differences in service provision and

design within an ICS will be considerably strengthened if informed by direct citizen participation. As we have seen above, true health care requires co-creation. This is more likely to happen if accompanied by appropriate co-design of services.

ICSs have a duty to involve the public. This is an opportunity to move towards greater participatory democracy that explicitly involves the public in solving policy problems that don't have clear answers and require trade-offs. Participatory democracy is a powerful process to support a new accountability system.

It has been successfully applied around the world for years and there is strong evidence that it works. For instance, it has been used in public-policy areas as diverse as climate change (the United States), abortion and LGBT rights (Ireland), nuclear power (South Korea) and pension reform (Japan). In the past, deliberation has also been used in the UK policy context for example to develop community services $\frac{106}{100}$ or inform climate-change actions. $\frac{107}{100}$

A more recent example can be found in London where citizens have taken part in a number of deliberative programmes in the past two years. The first programme ran over several weekends before the Covid-19 pandemic and involved a hundred Londoners to help determine rules around health-care data sharing. ¹⁰⁸ Data sharing is a highly technical area surrounded by complex legal laws, commercial arrangements and strong public views. Participants came up with a series of policy recommendations for the NHS and other government departments. Subsequent public engagement has helped to determine specific recommendations on issues such as a pricing structure for data accessed by industry and the commercial sector. These recommendations have become benchmarks for national policy development. ¹⁰⁹

Deliberation is not consultation or engagement in the traditional sense as there are no predetermined policy options. Instead, it enables citizens to become experts in a particular policy area and helps policymakers tackle "wicked" challenges that have no clear answers. Deliberation requires a degree of jeopardy and there is no certainty about what policy recommendations from the public will look like. This is a far cry from consulting with the public about a specific bill or policy initiative and it requires political courage.

As a tool of participatory democracy, deliberation is powerful when applied to the right problem and context. However, it can be time consuming and expensive and therefore only suitable for a few policies (for instance, whether a health facility should be closed, policies with long-term implications such as data sharing, or those with significant allocative trade-offs) rather than for everyday decision-making.

Digital technology has the potential to transform care. It has also started to disrupt democracy and may offer more agile and inexpensive ways for direct public participation. ¹¹⁰ A country that has progressed significantly in this area is Taiwan. In 2015, the online discussion platform vTaiwan helped to resolve a

political impasse on online alcohol sales by facilitating dialogue to reach consensus. ¹¹¹ In the same year, and using the same participatory method and platform, the government also reached a resolution on the regulation of Uber. ¹¹² The platform did not transform policymaking, but similar participatory platforms are also gaining traction such as "Join". Run by civil servants rather than volunteers, Join hosts and allows for debate on online petitions with the aim to reach consensus. Taiwan is not alone on this journey. For instance, CrowdLaw is a US GovLab training initiative that lists examples from legislatives and parliaments around the world to help strengthen democracy.

An essential requirement for participatory democracy to succeed is a highly engaged public. Importantly, this is the same requirement for health care more generally. Health care is a daily activity, not an episodic visit to see the doctor twice a year.

However, much of the current sickness model is dominated by a paternalistic relationship between patient and caregiver. The patient seeks certainty while the health-care professional is often reluctant to admit the limitations of what they know. In reality most health care is probabilistic; so is most health-care policy.

Admitting to not having all the answers is vital if we want to improve health-care policymaking. Participatory tools are powerful here. They enable burden sharing and create transparency and empathy as citizens and policymakers wrestle with wicked challenges. If health care requires increasing amounts of co-creation, health-care policy should be more participatory. This will also help mitigate any political risk if leaders admit to not having all the answers when transitioning to an "imperfect leadership" culture as set out above. If done correctly, it will help increase trust in institutions and decision-making itself.

Democratic participation in problem-solving provides a strong safeguard against variation in public services that are often not justified by local needs or based on collective decision-making. Variation across ICSs should be the outcome of conscious and democratic allocative decisions. This is also the cornerstone of the Finnish "humble government" accountable-autonomy approach: "the differentiation and customisation of government services that makes them effective in responding to wicked problems makes it hard to apply the familiar maximum of equal treatment for all. This makes it all the more important that citizens can be confident that the administration, through continued learning from ground-level experience, strives to be equally responsive to their particular needs." 113

Conclusion

The NHS is a formidable social institution. Its founding principles are laudable and have often been the envy of other countries. However, the context in which this system was conceived has changed fundamentally over the past 74 years. The NHS in its current form is unlikely to be sustainable or desirable and will struggle to emerge from this decade intact.

A centrally controlled sickness model cannot keep up with the changing burden of disease, scientific discovery and expectations among its users. The path towards a model of health care not solely concerned with seeing the next patient but one that is increasingly able to respond to the root causes of ill health requires a more agile and local approach to public services.

Moving away from a paternalistic provision orchestrated through command and control towards a genuine partnership with the public is central to a post-Beveridge and Bevan health-care model that includes prevention, as originally set out in the Beveridge Report. Health is not something the state can do to citizens; it can only be done with citizens.

The framework developed in this paper demonstrates that greater autonomy does not imply reduced accountability. Today, thanks to advances in technology, data and participatory methods, accountability can take many forms and work at different levels of the system. The one-size-fits-all approach of controlling public services from Whitehall is therefore no longer appropriate or necessary.

However, this does not mean that central government has no role to play. The benefits of setting clear standards and investing in fundamental data and digital infrastructure at a national level remain advantageous compared to countries with more fragmented structures, ¹¹⁴ as the response to Covid-19 showed. ¹¹⁵ It also does not imply a move away from the core principles of the NHS including it being free at the point of need.

At the heart of this is the concept of imperfect leadership. The transition advocated in this paper is hard and countercultural and will require significant personal and institutional courage. Celebrating leaders who are comfortable with admitting that they don't have all the answers is an important first step.

Footnotes

- An ever-growing NHS budget could swallow up all of this week's tax rise, leaving little for social care - Institute For Fiscal Studies - IFS
- 2. ^ The shrinkflation state | The Economist
- 3. ^ Health and social care levy | The Institute for Government; 6.7688_CO_Command paper cover_060921 (publishing.service.gov.uk)
- 4. ^ institute.global
- 5. ^ What is happening to life expectancy in England? | The King's Fund (kingsfund.org.uk)
- 6. ^ Health Equity in England: The Marmot Review 10 Years On The Health Foundation
- 7. ^ The NHS backlog recovery plan and the outlook for waiting lists Institute For Fiscal Studies IFS
- 8. ^ Mirror, Mirror 2021: Reflecting Poorly | Commonwealth Fund
- Civitas: Institute for the Study of Civil Society International Health Care Outcomes Index 2022
- Public satisfaction with the NHS and social care in 2021: Results from the British Social Attitudes survey | The Nuffield Trust
- 11. ^ Public satisfaction with the NHS and social care in 2021 | The King's Fund (kingsfund.org.uk)
- 12. ^ UK healthcare is already being privatised, but not in the way you think | Financial Times (ft.com)
- 13. ^ 'Dental deserts' form in England as dentists quit NHS, experts warn | Dentists | The Guardian
- 14. ^ See e.g. The Peckham Experiment (thephf.org)
- 15. ^ Cabinet minutes 12th October 1945
- 16. ^ The ministerial powers proposed in the Health and Care Bill should not be granted | The Institute for Government
- 17. ^ A Duty of Care, Peter Hennessy p 4
- 18. ^ BBC Radio 4 Analysis, The case for public service reform
- See Hilary Cotton's work on relational welfare Relational welfare. Similarly, see Polly Mackenzie is The-Social-State-Report.pdf (demos.co.uk)

- 20. ^ Radical Health Hilary Cottam
- 21. ^ First do no harm: lessons from service reconfiguration in London | The King's Fund (kingsfund.org.uk)
- 22. ^ Data-driven research partnership aims to identify predictive disease markers | Imperial News | Imperial College London
- 23. ^ For a helpful illustration of what this might look like, see Eric Topol Deep Medicine p 255
- 24. ^ See New Blood in Our Beating Heart: How Technology Can Revive the NHS, Tony Blair Institute for Global Change. Also see The Quantifiable Self www.economist.com
- 25. ^ Proteomics | Nature
- 26. ^ Polygenic risk: What's the score? (nature.com)
- 27. ^ Deep Medicine, Eric Topol, p 266
- 28. ^ Live better, together! | PatientsLikeMe
- 29. ^ 3D-printed organs could save lives by addressing the transplant shortage (theconversation.com)
- 30. ^ 3D Printed Skin?
- 31. ^ The xenotransplant patient who died received a heart infected with a pig virus | MIT Technology Review
- 32. ^ How digital-twin technology could revolutionise the healthcare industry (computerweekly.com)
- 33. ^ City's free HIV and sexual health test vending machines welcomed (brighton-hove.gov.uk)
- 34. ^ Eye care clinic of the future launched by UCL and Moorfields | UCL News UCL University College London
- 35. ^ NHS England » NHS gives women Human Papillomavirus Virus (HPV) home testing kits to cut cancer deaths
- 36. ^ 40 community diagnostic centres launching across England GOV.UK (www.gov.uk)
- 37. ^ A hospital without patients (politico.com)
- 38. ^ Home Patients Know Best
- 39. ^ What is a personal health budget? NHS (www.nhs.uk)

- 40. ^ A New Wave of Deliberative Democracy Carnegie Europe Carnegie Endowment for International Peace
- 41. ^ Choosing Wisely
- 42. ^ Right Care Series in The Lancet Lown Institute
- 43. ^ The National Health Service (NHS) at 70: Bevan's double-edged legacy | Health Economics, Policy and Law | Cambridge Core
- 44. ^ The Reith Lectures Onora O'Neill A Question of Trust Called to Account BBC Sounds
- 45. ^ In Soviet Union, Optimization Problem Solves You Crooked Timber
- 46. ^ NHS England » Integrated Care Systems: Guidance
- 47. ^ The Dawn of System Leadership (ssir.org) and Systems_Leadership_Rapid_Review.pdf (publishing.service.gov.uk)
- 48. ^ Intelligent Accountability in Education, Oxford Review of Education, 2013
- 49. ^ See e.g. The numbers game | The Economist; Health Policy: Have targets improved performance in the English NHS? PMC (nih.gov); Microsoft Word PST front pages v0.96.doc (parliament.uk) p. 21; Health Policy: Have targets improved performance in the English NHS? PMC (nih.gov)
- 50. ^ P 71
- 51. ^ Marmot Review 10 Years On IHE (instituteofhealthequity.org)
- 52. ^ Adoption and spread of innovation in the NHS | The King's Fund (kingsfund.org.uk)
- 53. ^ Diffusion Of Innovation (healthaffairs.org)
- 54. ^ Diffusion Of Innovations Theory, Principles, And Practice (healthaffairs.org)
- 55. ^ Why Good Projects Fail Anyway (hbr.org)
- 56. ^ Why do some great ideas just fail to scale? | Tim Harford
- 57. ^ How to Scale a Successful Pilot Project (hbr.org)
- 58. ^ Did Bevan's bedpan test set the NHS on the wrong track? RSA (thersa.org)
- 59. ^ For a brief history see NHS Confederation Governing the health and care system in England.pdf (nhsconfed.org) and Kings Fund Chapter 1: Return to the market: objectives and evolution of New Labour's market reforms Nicholas Mays, Anna Dixon, Lorelei Jones -

September 2011 (kingsfund.org.uk)

- 60. ^ Cabinet Office public service reform model
- 61. ^ Briefing: Independent sector treatment centres Chris Naylor, Sarah Gregory The King's Fund, October 2009 (kingsfund.org.uk)
- 62. ^ Public service agreements (PSAs) | Policy Navigator (health.org.uk)
- 63. ^ David Cameron: From government to people : Conservative Party Speeches :: SayIt (mysociety.org)
- 64. ^ Connections between quality measurement and improvement PubMed (nih.gov)
- 65. ^ Competition In Healthcare.pdf
- 66. ^ Competition in health care: lessons from the English experience | Health Economics, Policy and Law | Cambridge Core
- 67. ^ BEYOND MARKETS AND STATES, Elinor Ostrom
- 68. ^ Jeremy Hunt crazy to call hospital bosses, says regulator BBC News
- 69. ^ Sajid Javid tells NHS trusts: Drop Covid restrictions in hospitals or I'll name and shame you (telegraph.co.uk)
- 70. ^ David's futile fight against the goliath of bureaucracy (theconversation.com)
- 71. ^ Data saves lives
- ^ Many may also remember Liam Thorp with a recorded BMI of 28,000 '6.2cm-tall man' offered priority Covid vaccine after NHS blunder | Liverpool | The Guardian
- 73. ^ The quantified self | May 7th 2022 | The Economist
- 74. ^ Getting It Right First Time GIRFT
- 75. ^ Quality Improvement Tool Instruction Guide
- 76. ^ Choosing Wisely
- 77. ^ Cochrane | Trusted evidence. Informed decisions. Better health.
- 78. ^ The Vital 5
- 79. ^ Global IB exam chief: how jazz provides lessons in management | Financial Times (ft.com)
- 80. ^ Enhancing learning systems Finnish case study

- 81. ^ Humble Government: How to Realize Ambitious Reforms Prudently Demos Helsinki
- 82. ^ The annual cost of harm arising from clinical activity during 2019/20 covered by the Clinical Negligence Scheme for Trusts was just over £8bn of which 70% were maternity claims. This correlates with the significant failings in maternity care discovered in recent years. These went undetected for many years.
- 83. ^ Gwyn Bevan, who has been working with the Italian system, makes the point that a naming and shaming model also crucially relies on sufficient relational distance between government and providers one reason such model is more challenging in the devolved administrations in the UK.
- 84. ^ See e.g. impact on diabetes related amputations The Challenges of Hospitals' Planning & Control Systems: The Path toward Public Value Management PubMed (nih.gov)
- 85. ^ Devolution in the UK: governing each NHS with one hand clapping? | Centre on Constitutional Change
- 86. ^ Going Dutch in West Suffolk: learning from the Buurtzorg model of care | The King's Fund (kingsfund.org.uk)
- 87. ^ 'Team of Teams': The new McChrystal book is good but a bit heavy on SEAL role Foreign Policy
- 88. ^ Human Learning Systems
- 89. ^ Healthcare Improvement Scotland.pdf (humanlearning.systems)
- 90. ^ South Tyneside Alliance
- 91. ^ The practice of system leadership (kingsfund.org.uk)
- 92. ^ Obesity System Atlas
- 93. ^ See Berwick et al for a how empowered patients can drive improvement in care through selection Connections Between Quality Measurement and Improvement | Semantic Scholar
- 94. ^ COPD-checklist-example.pdf (innovationunit.org)
- 95. ^ Impact of a patient-specific co-designed COPD care scorecard on COPD care quality: a quasi-experimental study | npj Primary Care Respiratory Medicine (nature.com)
- 96. ^ See their teacher tool kit Teaching and Learning Toolkit | EEF (educationendowmentfoundation.org.uk)
- 97. ^ WHO accountability systems overview

- 98. ^ West Berkshire Council West Berkshire Community Municipal Investment (CMI) Information
- 99. ^ Abundance Investment
- 100. ^ Mental Health and Employment (MHEP) | (socialfinance.org.uk)
- 101. ^ Local government funding in England | The Institute for Government
- 102. ^ PPL It's all about that place
- 103. ^ Councillors to be allowed on integrated care boards | Local Government Chronicle (LGC) (Igcplus.com)
- 104. ^ Governing-England-devolution-public-services.pdf (thebritishacademy.ac.uk)
- 105. ^ Devolution to Greater Manchester | The Institute for Government
- 106. ^ Our health, our care, our say: a new direction for community services January 2006 CM 6737 (publishing.service.gov.uk)
- 107. ^ Climate Assembly UK
- 108. ^ OneLondon citizen summit
- 109. ^ Discover-NOW Citizen Advisory Group (CAG) Imperial College Health Partners
- 110. ^ Decisions on Digitalisation: Using Participatory Democracy for Better Policy | Institute for Global Change
- 111. ^ The simple but ingenious system Taiwan uses to crowdsource its laws | MIT Technology Review
- 112. ^ Building Consensus and Compromise on Uber in Taiwan | Centre For Public Impact (CPI)
- 113. ^ Humble+Government.pdf (tietokayttoon.fi)
- 114. ^ Fit for the future: What can the NHS learn about digital health care from other European countries? | The Nuffield Trust
- 115. ^ Covid-19 and the false dichotomy between centralised and decentralised healthcare systems -The BMJ

FOLLOW US

facebook.com/instituteglobal twitter.com/instituteGC instagram.com/institutegc

GENERAL ENQUIRIES

info@institute.global

Copyright © June 2022 by the Tony Blair Institute for Global Change

All rights reserved. Citation, reproduction and or translation of this publication, in whole or in part, for educational or other non-commercial purposes is authorised provided the source is fully acknowledged. Tony Blair Institute, trading as Tony Blair Institute for Global Change, is a company limited by guarantee registered in England and Wales (registered company number: 10505963) whose registered office is One Bartholomew Close, London, EC1A 7RI