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HOW TO IMPROVE THE HEALTH AND WELLBEING OF THE UK POPULATION:

Devolution and Reform of Health and Social Care

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INTRODUCTION

This report, which was largely completed before the Covid-19 outbreak, aims to provide comprehensive and actionable recommendations for the reform of health and social care. Long before this present crisis, the UK was already struggling with the complexity of this task. However, the current emergency has thrown into sharp relief some of the fracture lines in our health care system. As we emerge from this moment we can begin to think again about a different model for recovery. One with care at its heart. In doing so we might ask what might our health system look like moving forward? Can a more integrated and devolved system improve public health outcomes? Can a greater emphasis on prevention make us healthier, more resilient, and better able to cope with any future threats?

Of course, there are no quick or easy answers to improving the UK's health and social care systems. They are both large and complex operations. The health system (the NHS) costs over £158 billion a year[1] and employs 1.5 million people.[2] Social care employs about the same and costs over £22 billion a year, mostly via Local Authority spending on care homes and domiciliary care, with a further £11 billion paid privately.[3] Many of the problems faced are systemic, requiring integrated solutions. Just spending more money is not the answer.

We have therefore set out our proposals for the transformational reforms in three sections.

- **Part 1** recognises the key role of individual life circumstances, and place, in determining health outcomes. It argues for greater emphasis on prevention by focusing on place-based solutions and the devolution of health to the 'local state'. It concludes by describing the five key innovations required to transform health care.
- **Part 2** describes the operational measures, using real life clinical examples, that can improve patient outcomes in the near term.
- **Part 3** addresses population health and the need to streamline complex and fragmented authorities and responsibilities so that it is clear who is 'in charge' and accountable for performance.

The paper concludes with a 'call to arms' to restore the NHS to a position where it is, once again, the 'envy of the world'.

PART 1: THE LEVERS THAT WILL IMPROVE HEALTH AND CARE OUTCOMES IN THE UK

1.1 THE PRESSURE ON THE UK'S HEALTH AND CARE SYSTEM, AND POOR HEALTH OUTCOMES[4]

The NHS was truly 'the envy of the world' when it was set up in 1948, and it was perfectly fitted to the needs of the UK population in the middle of the 20th Century. At that time, most people passed away before the age of 65 and died within months of their terminal illness. Out-of-hospital (social) care for the elderly, therefore, was not a mass need. District General Hospitals (DGHs) performed relatively simple operations while independent, single-doctor General Practice (GP) surgeries dispensed drugs, especially the recently discovered anti-biotics, dealt with minor illnesses, and referred more serious cases to the DGHs. People with mental health conditions were locked up in mental asylums, over 150,000 as late as the 1960s.[5] Public Health,[6] with its emphasis on preventing illness, was deemed surplus to requirements in part as a result of its huge success in reducing mortality towards the end of the 19th Century, through major initiatives in hygiene, sanitation, and immunization.

The needs of the UK population have changed dramatically since 1948. A person born today has a life expectancy of 85, but the later years will rarely be comfortable as people live with chronic diseases, such as treatable forms of cancer, dementia and diabetes, and with the various co-morbidities that accompany old age.[7] Preventable lifestyle diseases, such as obesity, alcohol abuse, and excessive drug use (both prescription and illegal) are rising alarmingly, exacerbated in part by persistently high levels of poverty.[8]

Unfortunately, the way the health and care system works has barely evolved since 1948, and already-inadequate out-of-hospital care has been further denuded both by cuts in social care funding since 2010 and by rising unfunded demand for such services. Public Health remains scant, advisory and perhaps most crucially, wholly without any effective means of delivery. The response of clinicians, carers and the public to the Covid-19 pandemic of early 2020, is showing the remarkable dedication that people have to delivering care to their fellow citizens. 'Heroism' was a word rightly used to describe the selflessness of doctors, nurses and carers. But the way the system supported these clinicians did not emerge equally lauded. The coronavirus crisis highlighted the underinvestment in the system that resulted in distressing shortages of testing kits, personal protective equipment, ventilators, oxygen, and intensive care (ICU) beds. The UK has 6.6 ICU beds per 100,0000 and Germany has 29.2[9], and its decentralised system, which is much more integrated regionally, was able to respond to the crisis far more quickly and more effectively than the UK. It became apparent, also, that Germany was better prepared for the crisis than the UK. The exact timing of a pandemic was, of course, unknowable, but the fact that it would happen at some stage was very clear to politicians, senior managers and scientists. Indeed, the NHS conducted an exercise, Operation Cygnus in October 2016, simulating just such as crisis. It highlighted all of the shortages and constraints to coordinated action that played out in early 2020. The report was not released publicly because it was felt that *'it would terrify people*[10]'. It is still not available from the government or from Corporate NHS.

This paper is not an analysis of the NHS' response to the Covid-19 pandemic. The NHS was creaking at the seams, and the pressure on hard-working and skilled clinicians was intense, even before the pandemic struck. Nothing in this paper has been invalidated by the coronavirus crisis – rather a number of the key points, such as the underinvestment in health and social care, and the lack of integration between the two, have been cruelly validated. This paper starts by examining the health inequalities that have been rising in the UK over the last 10-20 years. The long economic depression that is coming out of the world-wide pandemic will impact the poorest and most vulnerable in our society, and it will accelerate the inequality between the rich and poor. It remains, then, the most appropriate place to start our analysis and recommendations.

For the poorest parts of the UK population, their health is getting worse not better, and the health gap with richer people is widening:

'The health of Britain's poorest people has declined since the mid-20th century while the rich have got fitter…poor people born in the late 1960s were less healthy during their thirties, forties and fifties than poor people born in the early 1920s were at the same age. The same comparison found that rich people born in the late 1960s were healthier than rich people born in the early 1920s, showing that there is widening health inequality between Britain's most and least affluent people.'[11]

And while health gaps widen and chronic conditions often remain unaddressed, those who suffer from this lack of attention and care inundate the health system as their problems worsen and become gradually more acute. There is no denying the NHS itself is being overwhelmed. The pressure is intense: GP appointments are ever more difficult to get; Accident & Emergency (A&E) departments are deluged; waiting times for treatment, even for fatal illnesses such as cancer, are lengthening; hospitals are brim-full; clinicians are reaching burn-out; and financial losses are burgeoning.

All of which detracts attention from the real cause of such a crisis which is that the health of the general population is not improving in line with other advanced nations and is actually deteriorating in the more deprived parts of society.

'In many areas of the country, and for poorer groups, life expectancy was already falling before 2018. It is not just the elderly who are especially harmed. The infant mortality rates for the poorest families in the UK have risen significantly since 2011. In 1990, the UK ranked seventh best in Europe by neonatal mortality rate. Only six countries had better outcomes. By 2015, it ranked 19th.[12]

Not only is there real damage and a terrible waste of human potential, but also there is a heavy burden on the country's finances:

'£69 billion, £1 in every £5 of all spending on public services, is needed because of the impact and cost poverty has on people's lives. It is equivalent to 4 per cent of the UK's GDP.'[13]

Despite the dedicated and skilled work of clinicians, despite Britain's world-class position in bio-medical science, and despite services being free-at-the-point-of-care, the UK has some of the worst health and social care outcomes in the developed world. A recent study said that:

'We decided to look at specific outcome measures for the 12 conditions which cause the most deaths in high-income countries, according to the World Health Organization[14]*….the NHS is not delivering outcomes as good as those of its peers. Performance for cancer and cardiovascular diseases, the developed world's two highest causes of death, is consistently below average.'*[15]

The United Kingdom also performs poorly on social measures. For instance, the country ranks 28th, the lowest Western European nation, on the Gender Inequality Index. That index concerns maternal mortality, adolescent fertility rate, seats in national parliament (percentage that are female), population with secondary education (male and female percentages), labour force participation rate (male and female percentages), contraceptive prevalence rate, at least one antenatal visit, births attended by skilled health professionals and total fertility rate.[16]

1.2 THE CONSTRAINTS TO SYSTEM IMPROVEMENT

There are six factors that constrain the UK's health and care system aligning more appropriately with the needs of the UK population. Ways of relaxing these constraints will be described in the first part of this paper:

1. The remits of National Bodies[17] are often muddled and overlapping. They need to be re-defined and strengthened;
2. Management is both too thin on the ground and insufficiently trained to manage complex health and care operations. As a result, the four major domains – community-based care, primary care, Accident & Emergency (A&E) and the Emergency Pathway; and in-hospital specialities, such as trauma and orthopaedics (T&O) – are at best uncoordinated and, at worst, chaotic. More front-line managers, especially more clinician managers, are required and they need to be schooled in modern management skills;

3. Piecemeal reforms and top-down reorganisations over the past many years have blurred responsibilities and accountabilities. There is a jumble of jurisdictions, and it is commonly very difficult to discover who is actually in charge and accountable for delivering a coherent, high-quality service. Good governance requires that there is clear accountability over logical health and care territories;
4. The system requires more money and more clinicians. Inventive means are needed to relax the perennial resource constraint intrinsic to a system funded almost totally out of general taxation;
5. There are major cracks between the separately organised health and social care services. They need to be fully integrated in both managerial and funding terms;
6. Key to relaxing and addressing all these constraints is the full place-based devolution of power and authority for health delivery from Whitehall and Westminster to local health and care economies. This devolved power will shape solutions that genuinely improve the health and wellbeing[18] of citizens in the specific community setting, addressing not only the treatment of illness but also the fundamental drivers of public ill health. This change is absolutely pivotal to reform, and we will not improve public health or address the permanent crisis in the NHS without it. Hence, we will discuss this next.

1.3 PUTTING PATIENTS AND CITIZENS AT THE CENTRE: DEVOLUTION

The health and care system as currently designed cannot cope. Nationally, A&E visits are up 22% over the last nine years. That's almost 24 million attendances.[19] This is largely because of the failure to tackle the growing problems of deteriorating health in poorer communities and the needs of an ageing population. As a result of these trends, chronic illness is rising at a faster rate than acute illness. As the Department of Health & Social Care notes in its Prevention is Better Than Cure paper, around 20 per cent of our lives are spent in poor health, and with ageing comes chronic conditions. The proportion of those aged 65 and over with four or more diseases is set to double by 2035.

'Much of the increase in four or more diseases, which we term complex multi-morbidity, is a result of the growth in the population aged 85 years and over. More worryingly, our model shows that future young–old adults, aged 65 to 74 years, are more likely to have two or three diseases than in the past. This is due to their higher prevalence of obesity and physical inactivity which are risk factors for multiple diseases.'[20]

Chronic disease and co-morbidities feed off of each other, causing, for instance, failing eyesight due to diabetes, or hypertension associated with dementia – 92% of people with dementia have at least one other serious health condition.[21]

Most tellingly, it's the ill health that we suffer through our lives that drives much of the demand in the acute sector today. This aspect of in-life ill health is fundamentally driven by socio-economic factors that are almost wholly beyond the remit of the NHS to influence or change. For example:

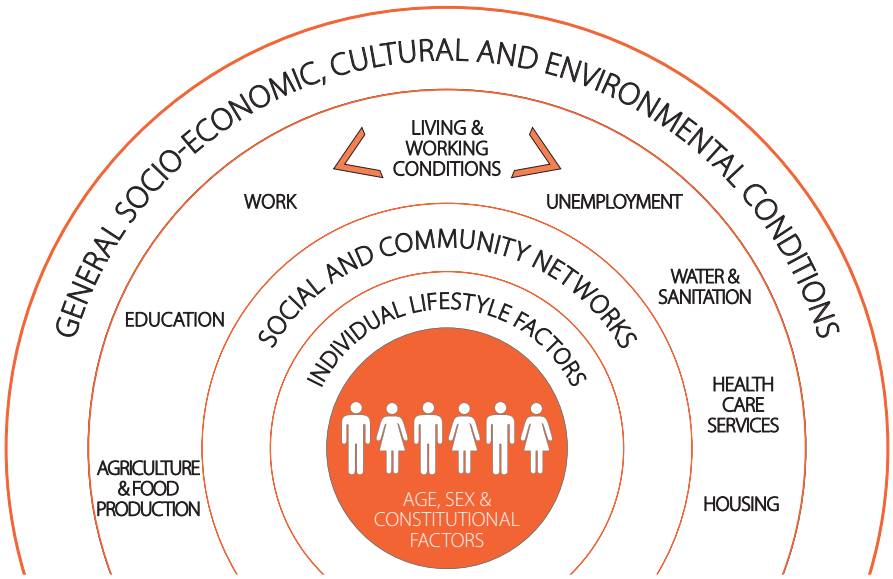
'A boy born today in the most deprived area of England can expect to live about 19 fewer years in good health and die nine years earlier than a boy born into the least deprived area.'[22]

It is clear that the health system as currently structured cannot hope to meet or tackle the causes of such endemic ill health when it is primarily a system focused on acute and episodic, rather than chronic and systematic, care.

The rightly lauded 2010 report 'Fair Society Healthy Lives' by Sir Michael Marmot argued that the majority of behavioural outcomes in health are dictated by socio-economic variables, not the performance of the NHS. Only around 20 per cent of the factors that cause ill health are influenceable by the NHS.[23] This and numerous other studies have led Public Health England and the NHS to identify seven key areas or indicators through which one can best address population health: the natural and built environment, work and the labour market, vulnerability, income, crime, education and the Marmot indicators. Launched by the Institute of Health Equity, the Marmot Indicators 2015[24] identify the social determinants of health, health outcomes and social inequality and come up with the following recommendations:

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

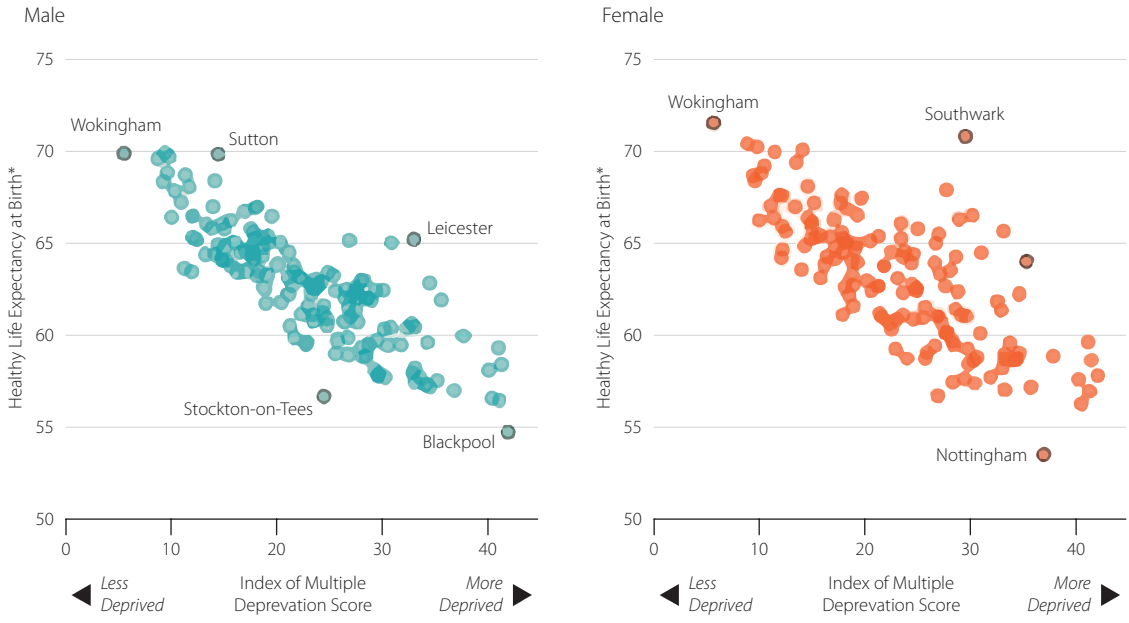
Figure 1: The Wider Determinants of Health



Source: Dahlgren, G. and Whitehead, M. (1991)[25]

In his most recent review (February, 2020), Marmot has described as 'shocking' the fact that improvements in life expectancy in England have stalled for the first sustained period in 120 years after the decade of government austerity since his 2010 report. He highlighted rising child poverty, declines in education funding, an increase in zero-hours contracts and the large number of people resorting to food banks. The result was 'ignored communities with poor conditions and little reason for hope' and a widening gap between rich and poor. The largest decreases in life expectancy were seen in the most deprived areas (the bottom ten per cent of neighbourhoods in the North East), and the largest increases in the least deprived 10 per cent of neighbourhoods in London. This widening gap is illustrated below.

Figure 2: Healthy Life Expectancy At Birth



*Number of years lived in self-assessed good health

Source: Institute of Health Equity

This leads to radically different conclusions about how health services should be delivered, with as much of an emphasis on keeping the population healthy as on treating them when they become ill. Public Health England have rightly argued that the centralised NHS, separated from the broader drivers of ill health, is not the delivery system one would design if attempting to improve the nation's overall health.

As the Secretary of State for Health and Social Care, Matt Hancock rightly notes:

'We cannot continue to invest in the same service models of the past. We will not meet our mission with 'business as usual'. . .This means services which target the root causes of poor health and promote the health of the whole individual, not just treating single acute illnesses.'[26]

It's universally acknowledged that the UK has the most centralised government of the major advanced economies,[27] but less recognised and more consistently resisted is the idea that devolution is also vital for delivering better health and care outcomes. It is not so much that local accountability needs to replace the distant centre of power and decision-making in Whitehall and Westminster. It is that the central state is incapable of tackling the highly specific demands and needs of a geographical area without a specific local agent that can better impact the long-term determinants of health.

It is the local state through bespoke economic actions that can best deliver economic growth and tackle poverty: the overwhelming socio-economic indicator for public health. It is the local state that can redesign housing, roads and public places, to foster physical activity, reduce crime and ameliorate isolation. It is the local state that can skill adults and the excluded in the optimal forms of training and education, so they no longer pay the price of low status and poor attainment. It is the local state that can pursue the multiple factors and their optimal mix that can give a place a future. And, of course, it is the local state that currently delivers, under great pressure, social care, and it is the systematic failure of this system that lies behind much of the rise of hospital admissions. These presentations are not just from the group under direct local authority care but also from the thousands who do not qualify for support, but who suffer from multiple conditions and whose first point of recourse is all too often the local A&E unit.

To argue that the devolved, local state is the institution that can best deliver on total population health[28] is not as radical as it sounds. In fact, this has been accepted in British health policy for some time. The Health and Social Care Act 2012 transferred public health from the NHS to local authorities. It abolished primary care trusts and transferred much of their responsibility for public health to local authorities. From this date, local authorities have had a new duty to take such steps as they consider appropriate for improving the health of the people in their areas. Local authorities also inherited responsibility for a range of public health services previously provided by the NHS including sexual health and services to tackle drug or alcohol misuse. As understanding of public and total population health has increased so has an appreciation of what factors decisively influence these outcomes.

If we are to progress the heath of the nation, the most significant and crucial agent has to be not the central state but the properly sized regional authority, with NHS services embedded in the provision of the broader community services that determine the health of the population.

These regional authorities should be founded on a proper area-based economic footprint, like the Combined Authorities, amalgamating many of the currently sub-scale, stove-piped local authorities, and encompassing NHS services.

These devolved **Health and Care Systems** need to be structured much more boldly than the Integrated Care Systems launched in 2019 by Corporate NHS. The overarching authority should be a new one made up of both the NHS and amalgamated local authority entities. There should be no question of one body taking over another – it will need to be a mixed entity but with clear lines of authority. Regional democratic legitimacy is important. Over time, there must be a single democratically elected regional leader and that can only be a mayor, such as exists in Manchester with Andy Burnham, in London with Sadiq Khan, and in the West Midlands with Andy Street. Obviously, there is only a small number of mayors currently, but this structure should be extended as quickly as possible to cover the whole country. As ResPublica has advocated:

"Devolving powers to new and emerging city regions and combined authorities will have the capacity to change and transform their social and economic environment, and will be essential if cities are to deliver on the twin objectives of growth and reform….Cities will need far greater control over public resources to shape local economies and design integrated place-based services that meet local needs and achieve local outcomes, and UK cities must enjoy equivalent levels of self-governance to other international cities and municipalities if they are to compete and prosper".[29]

This accelerated empowerment of cities to shape services around the needs of the local population should quickly be extended to non-urban regions such as counties:

"We propose a path to reform that leads to transformative devolution to the counties – 'Devo 2.0'. We argue that existing county council geographies are the essential building blocks. Through them, we can both reform the existing two-tier County/District system; and move to complete reorganisation in the form of single-tier unitary councils. The incentive to doing so should be a clear commitment to unlock the devolved powers that counties want and need".[30]

Some might worry that devolution will undermine the principle of 'universality' in the NHS, that everyone in the country should have equal access to healthcare. However, the reverse is true: the centralised NHS and, more broadly, the dominant power of London are the causes of the current postcode lottery:

'Access to good care is more and more of a lottery depending on where people live, with some areas providing only services that have been deemed substandard, according to the Care Quality Commission (CQC). 'Some people can easily access good care, while others cannot access the services they need, experience 'disjointed' care or only have access to providers with poor services, the CQC's annual report says'.[31]

Devolution to the locality is an inspirational ambition that will mobilise the health and care workforce, reversing its increasingly dispirited outlook. It will replace the current jumble of confused jurisdictions and unclear responsibilities, both within the NHS and between the NHS and local authorities. It will localise the NHS and make it more relevant to the patients and citizens that it serves. It is the engine that will drive an appropriate alignment of the 'workings' of the system with the needs of a 21st century population.

This process of devolution needs to be carefully done. It needs to be measured and sustained and must be uninterrupted by new cross-cutting initiatives and reorganisations from the top. Of course, this devolution needs to be complemented by national platforms, such as the spread of best practice and well-crafted regulation, that support effective local delivery. These national platforms will be considered later in section 1.8.

Some regions are ready for the change now, and they should be supported by the National Bodies to pilot the devolved arrangements, making sure that lessons are learnt and applied to those that follow. This should include an assessment of why Devo Manc has not lived up to initial aspirations, despite a significant injection of public money in the form of a £450 million grant.[32] It has made some progress in improving population health. But, it has, sadly, failed in the first key test of a successfully devolved healthcare operation, that of building the out-of-hospital infrastructure to take the pressure off A&E departments which, in Manchester, have slipped to become some of the worst performing in the country.[33] Devolution that looked good on paper has not been followed through with the type of delegated executive authority, driven by competent management, over the

still-disordered patchwork of local authorities, commissioners, primary care, community-based care and hospital providers. In conclusion, a rejuvenated and fortified wave of devolution needs to be launched.

That is not to say that improvements in NHS performance need to await formal devolution. Whilst devolution will be required to significantly 'move the needle' on health outcomes, there is, nonetheless, much progress that can be made in the short term. The rest of this paper outlines how this progress can be achieved.

1.4 INTEGRATING HEALTH AND SOCIAL CARE

The most urgent need is to integrate health and social care into one, unitary system. As a first step towards full devolution the adult and child social care departments of local authorities should be merged with newly defined NHS authorities, the Health and Care Systems.

The need to improve out-of-hospital care, and to integrate health and social care, is not a recent priority:

'A hospital plan makes no sense unless the medical profession outside the hospital service will be able progressively to accept responsibility for more and more of that care of patients which today is given inside the hospitals. It makes no sense therefore unless the medical profession outside the hospital service can be supported in this task by a whole new development of the local authority services for the old, for the sick and for the mentally ill.'[34]

This was written in 1961, and the aspiration has been repeated in every NHS plan and in every announced intention since. The imperative now is to give local leaders the authority and support to 'just do it', and to protect them from the local interference that characterises the current behaviour of the National Bodies.

As with any merger, the cultural differences between health and social care must be carefully managed. At one extreme, social workers think that medics jump to a pathological diagnosis too quickly and ignore the social and psychological context of patients. At the other extreme, medics think that social workers are unscientific and lack rigour. Neither view is helpful, and good management is required to blend multiple perspectives into patient-specific therapies.

The creation of a fund to pool all local health and social care would enable commissioners to integrate services and properly direct resources to the real pinch points in the system. These are often generated and driven by demarcation lines within budgets between the Councils, the CCG and the Hospital Trusts. Further, pooling would make the system more efficient, directing funds to their most optimal location. Funding redeployment like this can get up stream of problems and invest in prevention. The central purpose is to help realise short term savings (across the whole health service), the surpluses of which can then remain within the pool and be directly invested in medium term renewal and transformation, including for example restructuring GP practices and/or meeting new intermediate public health outcomes with new expenditure.

1.5 MORE MONEY AND CLINICIANS ARE REQUIRED

The UK spends considerably less on health and care than other developed nations.[35] The NHS CEO has said that:

"We are spending 30 per cent less per person on the health service than the Germans."[36]

Funding for health and social care should be combined, and levied as a 'hypothecated'[37] tax to:

- Prevent the inevitable 'stop-go' cycles of a general tax pool, allowing staged rises commensurate with need that we can already anticipate;
- Extend 'free' social care to the neediest and facilitate both progressive taxation and the extension of the means test into the NHS so that richer people pay more into the fund than the less privileged.[38] It is distressing and deeply unfair that a poor, frail, elderly woman living in, say, Liverpool, with co-morbidities and dementia (care for which is not a free NHS service), loses her home and life savings, whereas a billionaire with cancer (which is treated for free) living in London has access to care worth tens, perhaps hundreds, of thousands of pounds.

Since 2010, £7.7bn has been cut from adult social care budgets in England[39] at a time when there are increasing numbers of aged and disabled people.[40] These cuts need to be reversed given increasing demand in social care. The increased spending on the NHS announced in late 2019 is still not adequate.

"Health Foundation analysis shows maintaining current standards of care requires overall funding to increase by at least 3.4 per cent a year – an extra £2bn of funding above current spending pledges. To improve standards and transform services it said the health service needed 4.1 per cent of extra spending – equivalent to £6bn more spending than promised by ministers. This spending also does not address the social care crisis where restoring budgets to 2010 levels would require £12bn of extra spending."[41]

However, more money is needed than can be raised in taxes, even with the trailblazing hypothecated tax and with richer people paying more. The coffers should be supplemented by charges for abuse of the system, such as repeatedly missed appointments, and drunken assaults on staff. Whilst this might not raise much cash, it will signal that we should all value the NHS and its staff. Further cash can be raised from the private sector and internationally by commercialising innovation. A sometimes 'blimpish' NHS mentality often constrains this supplement to taxpayers' money. At a world-class tertiary centre like King's College Hospital, two or three opportunities come up every year to bring in valuable earnings from advanced medical practice and technological innovation. The more enterprising doctors and scientists find money in the private sector and develop their initiatives, but many just wither on the vine. A sovereign NHS venture capital fund, modelled on those operating in the more advanced universities, would give an attractive return on taxpayers' money. Universities like Imperial College, with its Imperial White City Incubator[42] and Imperial Innovations,[43] would be good partners for the NHS to give taxpayers a better return on their investment.

The first beneficiary of the new solvency will be the workforce, both in terms of increasing numbers - there are currently over 200,000 vacancies in the health and care sectors[44] - and developing new clinical and caring skills.

1.6 GOOD GOVERNANCE REQUIRES CLEAR ACCOUNTABILITY WITHIN COHERENT HEALTH AND CARE TERRITORIES

The current system is chaotic, with overlapping jurisdictions, unclear reporting lines, and diffuse, ambiguous responsibilities. The fracture between the NHS and Local Authorities is the most obvious example, but the muddle goes further, making it difficult to find out who is actually in charge even within the NHS

.

Purposeful change will only happen if there is clarity of accountability. Coherent authority needs to be built from the ground up.

A more detailed description of governance and responsibilities is contained in Part 3 of this paper.

1.7 THE NHS AND SOCIAL CARE NEED BETTER SUPPORTED MANAGEMENT AND CLINICIANS

There are too few managers and too few clinicians are managers. The NHS is a complex operation. Take the example of King's College Hospital. On one site (Denmark Hill), it has 1,200 beds, 8,000 employees, nearly 30 operating theatres, over 400 attendances at A&E every day, and nearly 150 daily hospital admissions and discharges. It operates at 98 per cent capacity utilisation, and it serves nearly a million outpatient appointments every year. This is not an easy place to manage - it is as complicated as any industrial process - yet management and admin staff are regularly axed so that short term financial targets are hit. They are often harassed by heavy-handed interventions from the National Bodies, unsupported in learning the necessary (and cost saving) advanced operational techniques or being schooled in best practice. They are regularly vilified as bureaucrats or overhead:

"In most of business, the requirement for good management is a given. No company would reckon to stand a chance of running well without it….Yet in the public sector – and in the NHS in particular – whenever politicians talk about management it is almost invariably a pejorative term."[45]

This needs to change, with innovations such as universities developing 'Medical MBAs' in partnership with the NHS both to give clinicians a route into management, and to teach all managers advanced skills and competencies.

Part 2 of this paper describes how, drawing on coalface experience especially at King's College Hospital, the operations of the four major clinical domains can be better managed, and best practice spread.

1.8 THE NATIONAL BODIES[46] NEED STRENGTHENED AND RE-DEFINED REMITS

National Bodies in the NHS have a difficult task. They are stretched in every way conceivable: by competitive, often vituperative, party politics; by the classical conundrum of 'scarce resources and unlimited wants'; by an apprehensive public protective of their NHS 'rights'; and by a media machine that plays on emotions by headlining failures and scandals. The tendency to rush to put out fires and 'grab the wheel' is understandable. But it has led to some defensiveness, role confusion and mission creep.

Devolution will ensure that decisions are taken closer to the clinician-patient interface which will result in clinicians and managers who are more empowered to shape local services to the needs of the local population. At the same time, however, the National Bodies need to create overarching, national platforms that use an expanding evidence base to complement devolution by setting national standards and spreading best practice. Devolution cannot be allowed to result in geographically isolated silos that resist scrutiny and challenge.

The National Bodies - Corporate NHS, the regulators and politicians - have a vital role to play in getting the best out of devolution, but that role needs to change from what it is today.

CORPORATE NHS NEEDS TO BECOME A SOLID SUPPORT FOR THE FRONT-LINE

Corporate NHS[47] should give up its role as yet-another regulator and support the hard-pressed managers and clinicians who deliver care daily to patients, performing three functions:

- Operating effective workforce development and talent management programmes, ensuring that there are enough skilled clinicians in the system and that managers are well trained and well supported. This national responsibility should complement, and support, local implementation of workforce schemes;
- Formulating and implementing actionable strategies that demonstrably improve patient care. One exception that 'proves the rule' to the generally disappointing strategic performance of Corporate NHS is the 'Getting It Right First Time' (GIRFT) programme. It is an example of how strategy should work: it is focused on improving patient outcomes and it is actionable in that it engages and mobilises the clinicians in the patient setting. Its application to the trauma & orthopaedics (T&O) function at King's will be described later;
- Making wise investment decisions and channelling funds appropriately and fairly. The current approach is haphazard[48] and sometimes damaging. Capital allocation, vital to keeping the NHS infrastructure in good shape, is erratic and often raided to shore up short-term holes. Revenue allocations are neither systematic nor data-driven, with little adjustment, for instance, for complexity of need. Some inner-city areas, such as Southwark and Lambeth, where King's Denmark Hill hospital is located, receive lower per capita funds when weighted for the greater complexity of health and social ills.[49] The commissioning system by which hospitals get most of their money (through block contracts or Payment by Results (PbR)) is inconsistent and often inscrutable. The allocation of money needs to be based on rigorous assessments of the specific challenges of the region in question. Greater transparency will also have the benefit of protecting politicians from the accusations of 'pork barrel politics'[50] that are sometimes made.[51]

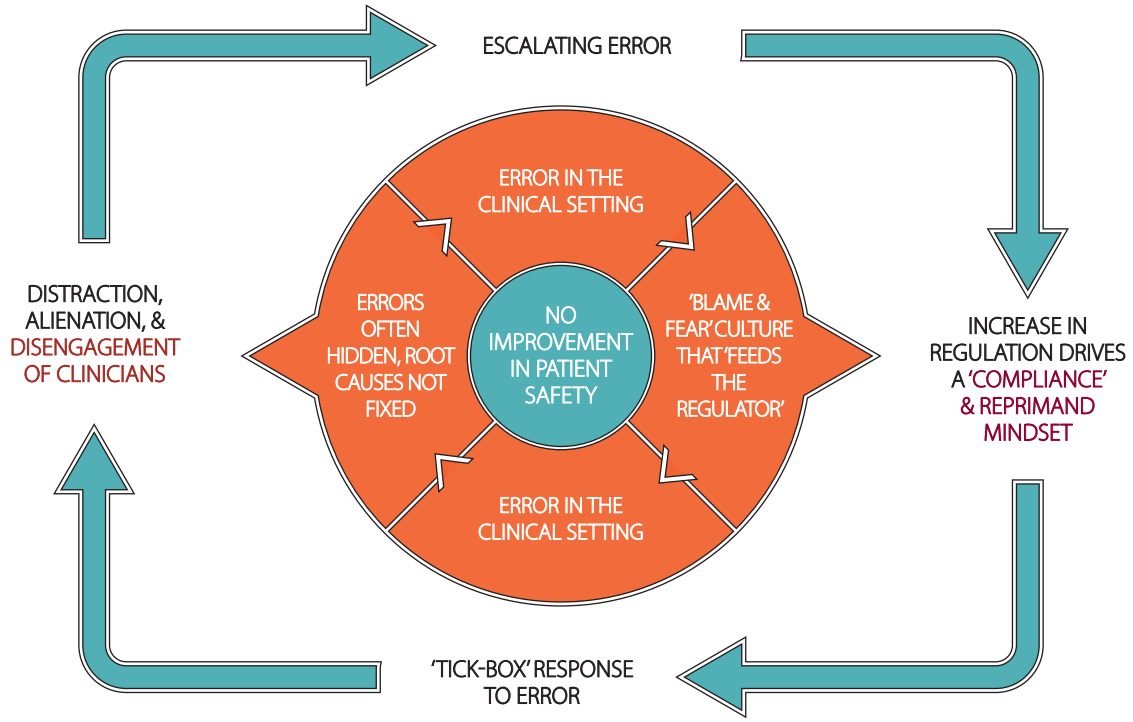
REGULATORS AND REGULATION NEED TO BE RATIONALISED

There are too many regulators, often working from different mandates. They need to be consolidated into one organisation, the CQC, which then needs to take on responsibility for 'total system integrity'. This should include all aspects of quality assurance, as well as highlighting potential threats, due to insufficient clinicians and money, to the Health and Care Systems.

The CQC's role should be extended to technology, where there are some pressing issues constraining development. For example, ambiguity over 'data privacy' regulation (mostly as a result of GDPR[52] legislation) is frustrating important progress in health benefits and scientific discovery.[53] In the realm of technology, the CQC

should leverage pan-country economies of scale, defining API[54] protocols, negotiating framework agreements with suppliers, reconciling GDPR with efficiency, promoting innovation, and so on.

Figure 3: The Vicious Cycle of 'Blame and Fear'

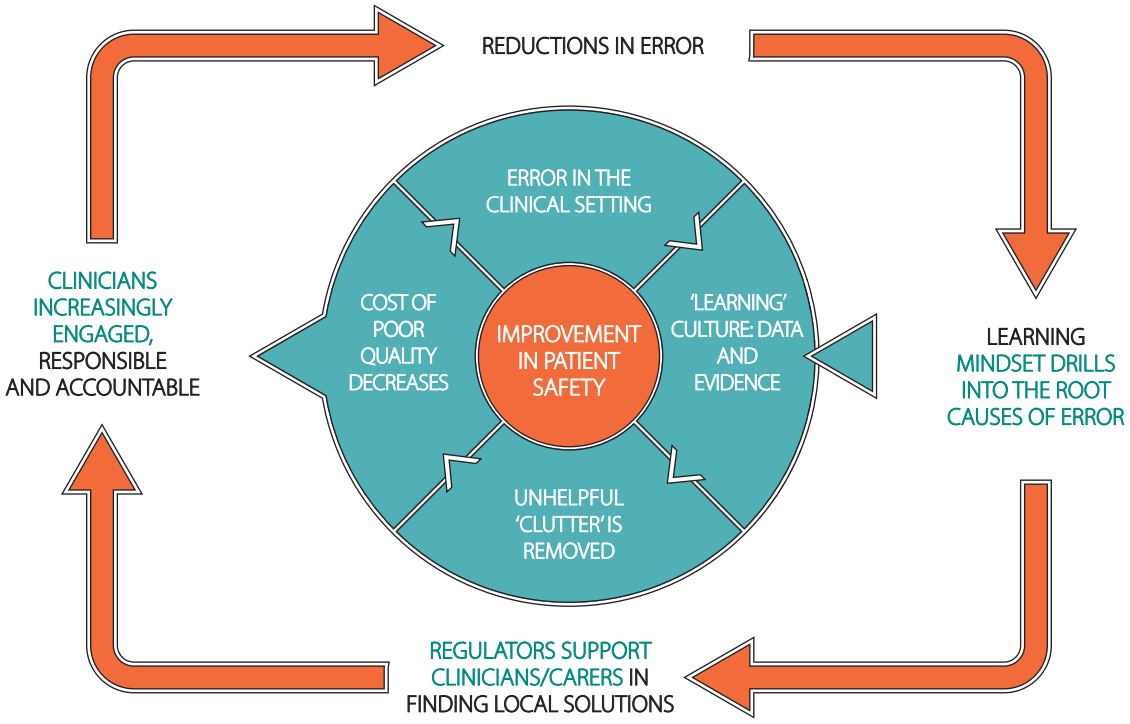


Source: Ian Smith, 2019

Most importantly, the CQC needs to reverse its alarming march toward criminalising honest, if sometimes tragic, clinical error. Such penal behaviour feeds the vicious spiral of 'blame and fear', illustrated here, which is a hallmark of the NHS culture,[55] and also fuels the rise of 'defensive medicine'.[56,57] In a recent survey, 55 per cent of doctors said they were fearful of being unfairly blamed for errors due to pressures or systemic failures.[58]

The CQC should instead become the determined champion for 'learning', launching the 'virtuous circle', illustrated below. The virtuous circle begins with the mindset that 'we must learn from this mistake'. A team comprised mostly of the clinicians involved in the unit (and the error) work to find out what happened and why, using data-driven analysis. In the process, clinicians re-design - taking ownership for - their clinical environment, fixing the root causes of error. This might well involve an evidence-driven rejection of mandated targets and reports, thus removing some of the compliance 'clutter' that is counter-productive. As the dynamic progresses, clinicians feel increasingly empowered and trusted to be accountable, and error begins to decline.

Figure 4: The Virtuous Spiral of 'Learning'



Source: Ian Smith, 2019

A crucial part of the 'virtuous circle' is that authority is returned to the clinicians. Improved levels of safety and quality only happen at the interface between the patient and the clinician. A new, and germane, term is being used in the health and care sector: a 'just-culture'.[59] In a just-culture, clinicians are encouraged to own up to error in the knowledge that they will be supported in learning from the mistake rather than being punished for it. The CQC can redefine its role and adopt the noble purpose of using unintended, usually systemic, mistakes to make treatments safer, thereby making the NHS 'the biggest learning organisation in the world'.

THE POLITICIANS HAVE A TOUGH CHALLENGE TO CONVINCE A SCEPTICAL PUBLIC, BUT THEY NEED TO RISE TO THAT CHALLENGE

Politicians do not have an easy task, as any mooted reforms are perceived by the public as attempts to stop the NHS being free and/or to reduce access to it. Nonetheless, the politicisation of the NHS has inhibited innovation and change, where both main parties have become trapped in the maintenance of the same broken model. Our politicians, with our support, need to be more indomitable and radical, shaping a narrative that reassures people while justifying the, at times, unsettling changes that are far better than the deepening distress that inaction brings. Now is the time to take action, as the public is increasingly anxious about the future of the NHS[60].

The impact of the six constraints to producing better outcomes is illustrated in the sidebar outlining how they impact on the UK's poor performance in cancer survival rates.

1.9 THE DAMAGING CONSEQUENCES OF THE CONSTRAINTS TO CHANGE

The solutions to the constraints to change outlined above are urgent as the current situation is damaging the health and wellbeing of the UK population. This part of the report concludes with a case study of how the six constraints to change are causing lower UK cancer survival rates compared to other advanced countries.

AN EXAMPLE: LOW CANCER SURVIVAL RATES CAN BE IMPROVED BY MEASURED REFORM OF THE SYSTEM

The UK healthcare system, the NHS, has some marvellous positives. It has skilled and dedicated clinicians, it is a world-leader in bio-medical science, and it is free. However, all of these positives are undermined by an increasingly fractured system. Part 1 discussed the six constraints to productive change which are:

1. Muddled and overlapping National Bodies ;
2. Insufficient and under-skilled managers;
3. Jumbled jurisdictions;
4. Insufficient money;
5. Major cracks between health and social care services;
6. An overly centralised system requiring Devolution

The malfunctioning of the system not only makes it clunky and disorientating for clinicians and patients, it also has a direct effect on quality and safety.

'A new study published in The Lancet Oncology shows that Britain's cancer survival rates are lagging behind those of other wealthy countries….Australia had the highest survival rates while Britain had the lowest after Canada, Denmark, Ireland, New Zealand and Norway. In Britain the disease is responsible for more than a quarter of all deaths.'

The UK's poor performance on cancer survival rates is a 'call to arms', and illustrates, demands even, that the six constraints to productive reform are overcome.

MUDDLED AND OVERLAPPING NATIONAL BODIES

Corporate NHS launches regular policy papers on ways of improving the UK's performance on cancer survival rates but does not follow through with coherent and consistent management of the policy recommendations. There are many examples, but to use just one, Cancer Research UK makes the following plea with regard to the crucial area of data for research.

'With the NHS as a single provider, and with a large, socially and ethnically diverse population, the UK has the potential to become a world-leading centre for innovative digital healthcare. This could increase efficiency,

attract investment, create jobs and improve patient experience. It has also been found that digitally facilitated research can lead to substantial efficiency savings. However, even experienced researchers running major national studies experience continual delays and frustrations in accessing data from the NHS. While processes must be robust, they must all be proportionate and efficient. Currently NHS Digital and Public Health England run separate, overlapping application processes.'

A single national body responsible for managing all of the factors that are required to improve survival rates should be created. It would provide the overarching enablers, such as data protocols, that devolved authorities can then shape to meet local needs.

INSUFFICIENT AND UNDER-SKILLED MANAGERS

As a result, the four major health and care domains – community-based care, primary care, Accident & Emergency (A&E) and the Emergency Pathway; and in-hospital specialities – are at best uncoordinated and, at worst, chaotic

A key factor in surviving cancer is how early the disease is diagnosed. Such is the pressure on the system that getting to see a GP is becoming harder and harder, and consultations are often rushed, meaning that diagnosis is delayed or even overlooked:

"Around 115,000 patients are diagnosed at stage 3 or 4 each year, too late to have the best chance of survival.… There are delays, too, between a person resolving to see a doctor and being seen. One in five patients has to wait at least 15 days to see a GP in England, and then for under ten minutes. The delay and brevity of the appointment go some way to explain why 20 per cent of cancer cases are diagnosed in an emergency situation. Such patients are less likely to survive as their cancer will probably have been discovered too late."

The increasingly ruptured system disfigures the process of cancer care throughout the whole pathway: "Further delays occur after a patient has been referred for cancer treatment. Hospitals are meant to start care within 62 days of an urgent referral by a GP in 85 per cent of cases. A recent study showed that nearly three quarters of services in England failed to meet that target, compared with 36 per cent five years ago".

JUMBLED JURISDICTIONS

Professor Sir Mike Richards, in his review of cancer screening, condemns one of the key impediments to productive change: the lack of clear executive authority and the befuddlement of overlapping responsibilities and jurisdictions.

"Other issues outlined in this report are rooted in the question of governance and accountability. Many people have asked me 'who is in charge of cancer screening?' The answer is not obvious."

Clearly an individual and their team need to be unambiguously in charge and accountable.

INSUFFICIENT MONEY

Better screening would support earlier diagnosis. However, the problems of funding, especially under-investment in IT systems, and the pounding stress placed on under-resourced, under-supported managerial and admin staff, mean that screening is often haphazard.

"More people will die of preventable cancers and heart conditions because of the government's failure to address appalling' flaws in screening programmes….A damning report by MPs on the Public Accounts Committee found not one adult screening programme in England met its minimum target for health checks."

Under-funding has also led to gaps in the clinical workforce:

"Staff and equipment shortages are further hampering the health service's ability to close the gap on other countries. According to Cancer Research UK, one in ten diagnostic posts is vacant….Meanwhile, health workers are having to put up with old or absent machinery. While Japan has 107.2 CT scanners per million population, Britain has 9.5".

More resources are needed, and an hypothecated, progressive tax fund, supplemented by inventive new methods to raise money, is the most appropriate way of unblocking the logjam of underfunding due to reliance on general taxation.

MAJOR CRACKS BETWEEN HEALTH AND SOCIAL CARE SERVICES

The situation would also be improved if people were better informed about what symptoms to look for. However, the system, due to its history, has an 'acute' emphasis rather than a preventive one, and public information campaigns are both too sparse and insufficiently customised. A public health function embedded into a restructured community-based and primary care system would be able to target individuals with a high risk of developing cancer, diagnosing them earlier and giving them a personalised treatment programme. One in three cancers are preventable, and the four biggest risk factors are: smoking, poor diet, obesity and alcohol. Customised prevention programmes, shaped around the particular psychology and lifestyle of the individual, would have a highly beneficial impact:

"Smoking is by far the most important preventable cause of cancer in the world. Smoking rates, although declining in Britain, are still at 20% of the adult population, and around 150,000 children take up the habit every year. Our impact in this area could be dramatic – reducing the number of people smoking by just 1% could save 3,000 lives per year in the UK from cancer alone.".

AN OVERLY CENTRALIZED SYSTEM REQUIRING DEVOLUTION

The chances of contracting cancer rise steeply for poorer, less advantaged people:

"Several studies have reported that not working versus working was associated with elevated risk of all cancer,

lung, mouth and pharyngeal, laryngeal, oesophageal cancers and oral cancer for both sexes. Unemployment and negative health consequences are well established with health effects felt at the first signs of job insecurity leading to psychological stress and anxiety as well as financial impact."

Devolution to the local state is required so that (a) the current patchwork of jurisdictions can be integrated into a patient-centred mandate and delivered with lucidity, and (b) the full panoply of factors, extending to issues such as housing, employment and education, can be engineered to reduce the foundational causes of ill health.

PART 2: BETTER OPERATIONAL MANAGEMENT TO IMPROVE HEALTH OUTCOMES IN THE SHORT TERM

2.1 PRESSURE ON THE FOUR MAJOR HEALTH AND CARE DOMAINS

Correcting the six constraints[61] to productive reform of the UK's Health and Care Systems will provide a supportive context for managers and clinicians to actively shape services around the needs of patients. However, improvements in service will not be just a 'matter of course'. Considerable management skill, resolutely supported by the National Bodies, is required. The task is urgent – the NHS and social care are in a deepening crisis.

'Crisis' is a strong and often over-used term. Public satisfaction with the NHS is relatively high at 53%. This is driven by their gratitude both to the NHS staff who care for them, and for the service being free. However, these levels of satisfaction are falling, there was a 3-percentage point drop between 2017 and 2018.[62]

Declining satisfaction is due to deepening fractures in the foundations of the NHS. An April 2019 report by the House of Commons Committee of Public Accounts said:

'The NHS's financial health is getting worse: increasing loans to support trusts in difficulty, raids on capital budgets to cover revenue shortfalls, and the growth in waiting lists and slippage in waiting times do not indicate a sustainable position.'[63]

The pressure on staff throughout the NHS is reaching breaking point, as described by the King's Fund:

"It is astonishing that politicians have watched the NHS staff crisis develop to this point without taking action. The reality is more than 100,000 NHS staff vacancies – that's 1 in 11 of all NHS posts. There are very high levels of staff turnover with large numbers of nursing, midwifery and medical staff leaving every month (in secondary care, community services and general practice in particular). And there are chronically high levels of sickness absence and presenteeism. Add to this the struggle most NHS organisations now have in recruiting staff and the picture becomes clear. This is a crisis that threatens the ability of the service to deliver safe, high-quality care for the people in our communities. In any other industry, increasing staff turnover, absenteeism and difficulty recruiting would be seen as red flags, warning of fundamental toxicity in organisational cultures.

The latest NHS staff survey data (February 2019) reinforces this understanding. For years we have recorded high levels of stress that damage staff health, causing a range of issues including cardiovascular disease, diabetes, addictions, cancers, sleep disorders and depression. Fifty per cent more NHS staff now report debilitating levels of work stress compared to the general working population, and year after year, around 40 per cent report being unwell as a result of work stress during the previous year. This affects the delivery of care – undermining safety and quality of care and, in the acute sector, associated with higher levels of patient mortality – and contributes to higher levels of bullying, harassment and discrimination.

After 15 years of surveying NHS staff in England, we still see very high levels of bullying and discrimination and little evidence of improvements in staff experience over recent years…The experience of many staff is a toxic cocktail of unmanageable demand and little control."[64]

The word 'crisis' is unarguable with regard to social care:

"Adass[65] *said social care in England was adrift in a 'sea of inertia' caused by years of budget cuts and [Whitehall] policy paralysis. The system is not only failing financially, it is failing people."*[66]

The pressure on the system is apparent in all of the four major health and care domains:

- **Community-based care** helps people who need care and support to live as independently as possible in the community and to avoid social isolation. The services are aimed at the elderly and those who have mental illness, learning disability and physical disability. 'Need' is determined by a health assessment conducted by the local authority. Acute medical conditions are treated free of charge by the NHS, but many chronic conditions, such as frailty and dementia and many mental health conditions, are not treated for free and have to be paid for privately or endured. However, if a person's capital (including their house) goes below £23,250, measured by the means test, then the local authority will contribute to either placement in a care home, or domiciliary care (home help). These services are provided by private companies and represent the bulk of local authority spending on community-based care. The local authority might provide other services such as home adaptations, such as a stair lift, and social gatherings in day centres. In total, community-based care is congruent with what is generally described as social care;
- **Primary care** services provide the first point of contact in the healthcare system, acting as the 'front door' of the NHS. Primary care mostly comprises general practice (GPs), but also includes community pharmacy, dental, and optometry (eye health) services;

- **A&E and the Emergency Pathway** refers to patients attending the Emergency Department in an acute hospital or a specialised urgent care centre, and then sometimes being admitted to hospital, thus entering the Emergency Pathway;
- **In-hospital specialities** are the clinical groups mostly within hospitals such as trauma and orthopaedics, ophthalmology, kidney services, etc.

Relieving the pressure in these four domains is an urgent priority, and each of them requires either greater investment and/or more coherent management. The relevant reforms for each of them will now be described in more detail.

2.2 REVITALIZING COMMUNITY-BASED CARE

There are 1.4 million frail and infirm people who are not getting the help they need.[67] The home care industry is in dire straits. In the past two years, three of the biggest national providers of home care have withdrawn from the publicly funded market.[68]

The number of care home beds has fallen by 21,500 in the last 3 years.[69] These patients cannot go home safely and must, instead occupy one of the scarce 100,000 beds in the NHS.

Although the numbers of people in psychiatric hospitals has been reduced from over 150,00[70] to 16,000 since the 1960s, care for mental health in the community is grossly inadequate.

Poor out-of-hospital care is putting huge pressure on the NHS as GP waiting times become longer and longer, and A&E departments are overwhelmed. And far too many people are currently occupying expensive hospital beds unnecessarily and dangerously:

"Something like 30 per cent of patients in hospital beds could be being cared for somewhere else, giving them more liberty and quality of life, and up to half of these people have dementia and need constant support."[71]

Cuts in social care spending represent a false economy. They result in increased spending in the NHS as more people – especially the most vulnerable, like frail older people – inundate the health system. Hospital 'bed blocking' is very expensive, costing from £1,750 a week up to over £3,000 for an acute bed[72] at end of life compared to about £800 to £1,000 for equivalent or better care in a nursing home bed.[73] Although worse in winter, it is an increasingly year-round issue.

Moreover, inappropriate hospital stays for frail older people are dangerous and debilitating. Seven days in hospital is associated with a 10 per cent reduction in muscle strength[74] and a marked functional decline[75] that often leads to death earlier than would otherwise be the case.

Five reforms are required:

- The care home and home care sectors should become a fully integrated part of the Health and Care Systems, operating under the NHS brand and managed as indivisible line-reports;

- The CQC needs to regulate the community-based care sector on a 'utility Return on Investment' (utility ROI) basis. This will both prevent the elaborate, and damaging, financial engineering that some private equity firms have practised. It will also give rates of return that will attract private sector investment into the currently threadbare sector. This will result in more care homes being built, and provide the funds to attract more, better qualified, carers into the sector;
- A designated executive should be responsible for the entire patient pathway from hospital discharge wards into community-based care. Starting in the discharge ward, regular ward and 'board'[76] rounds with a single authoritative assessment (instead of, as at present, multiple, conflicting assessments from the many cluttered jurisdictions involved) will ensure timely and safe discharge of patients. Information systems will tell the community-based care team where home care and care home beds are available. With care homes an integral part of the system, then techniques such as 'discharge to assess', whereby patients are moved to a care home instead of using a hospital bed as they await an assessment, will begin to have an impact. The executive for out-of-hospital patient flow would have full control of the funds that are currently spread, wastefully, across at least four different organisations;
- An intermediate care sector, as exists in all other European countries, needs to be created from scratch to take higher acuity patients out of hospital sooner. Some of the more enterprising care home companies are developing this service, and their initiative will be accelerated as the utility ROI regulation is introduced;
- Domiciliary care requires a substantial overhaul, drawing on best practice internationally, as exampled in the case study on Buurtzorg below.

BUURTZORG: THE DUTCH APPROACH TO COMMUNITY CARE

The UK system of community care is messy and inadequate. It not only suffers from chronic underfunding, but it is also based on outdated and chaotic practices. Carers are poorly trained, they are task- (rather than patient-) driven and there is very little continuity of care.

One of the most celebrated international models is the Buurtzorg approach in the Netherlands. Buurtzorg is a competitive private sector company, and it has grown through innovating the way in which care is delivered – and maintained.

Buurtzorg operates in a competitive insurance-based marketplace where patients can choose their provider based on a number of considerations, including: cost, extent and quality of cover provided and reputation. Buurtzorg's approach has enabled it to outmanoeuvre many of its competitors in all three of these areas.

Nurses lead the assessment, planning and coordination of patient care. The model consists of small self-managing teams, each with a maximum of 12 nurses. Sometimes a team will also oversee Nursing Assistants (the Dutch equivalent to Health Care Assistants). Teams provide co-ordinated care for a specific catchment area, typically consisting of between 40 to 60 patients. The composition of these teams in terms

of specialty and level of practice varies according to the needs of each catchment area. A significant reason why Buurtzorg has managed to provide excellent patient-centred care at competitive rates has been due to its approach of putting patient self-management at the heart of its operation. How this works is that each new patient relationship begins with high levels of support provided by the team. This is then gradually withdrawn as self-management aids and supports from social care, voluntary and third sector organisations are identified, assessed and put in place. This approach cuts long-term care costs by between 30 to 40 per cent and supports a national policy aim of delivering care closer to home or in a homely setting. In the Netherlands, integrated care is easier to deliver because district nurses tend to be well known in the small neighbourhood/community in which they work. This helps them to build good working relationships and strong dialogue with GPs, welfare and social care providers, police and paramedics.

Buurtzorg offers six key services. These are:

1. Holistic assessment of the client's needs which includes medical, long-term conditions and personal/social care needs. Care plans are drafted from this assessment;
2. Map networks of informal care and assess ways to involve these carers in the client's treatment plan;
3. Identify any other formal carers and help to co-ordinate care between providers;
4. Care delivery;
5. Support the client in his/her social environment;
6. Promote self-care and independence.

Buurtzorg cares for patients who are terminally ill, suffer from long-term conditions, dementia or require home care following major surgery. Most of the nurses who join Buurtzorg are trained at a 'generalist' level (similar but not directly equivalent to a UK Registered Nurse in Adult Care). This allows them to deliver treatments from wound care and diabetes monitoring to intravenous infusion therapy and end-of-life care.

2.3 PRIMARY CARE: HIGH-RISK CARE MANAGEMENT AND POLYCLINICS

Primary care should be restructured in three ways, around: patient pathways for the most vulnerable; polyclinics;[77] and personalised population health.

Bromley has a population of nearly 350,000 and one DGH, the Princess Royal University Hospital (the PRUH, part of King's). Dr Angela Bhan, the lead commissioner (Managing Director of the local Clinical Commissioning Group) and a specialist in public health, as well as her colleagues, have worked hard to create One Bromley. One Bromley puts the seven separate health and care agencies, ranging from the local authority to the hospital, around one table. It seeks to fundamentally redesign patient pathways and deliver integrated and personalised care to individuals.

In Bromley, 62,000 people are over the age of 65 and about 1,700 of those are very ill, visiting their GPs and the local hospital regularly. At present, they bounce around multiple agencies – in addition to the GPs and

acute hospital, there are community nurses, social workers, mental health services, care homes, etc. These patients are often disorientated, and their lack of seamless care contributes to deteriorating health and reduced independence. No single health or care professional is responsible for their welfare, including not only their clinical needs, but also the aid they require for everyday tasks such as going to the toilet, taking medication, or turning up to outpatient appointments. The core change required is to make a clinician responsible for a high-risk care management programme that actively eases the patient's difficult and disorientating journey through a disjointed system.

The high-risk care management programme would appoint about 20 community matrons as care managers[78] who take full responsibility for each of the 80-90 patients in their cadre, covering the 1,700 (named and identified) high-risk patients in Bromley at any one time.[79] They are located in the communities and report to the GP their assessment of an appropriate care plan. GPs are at the apex of a care pyramid coordinated by the care manager to deliver personalised management for the patient over full cycles of care. The care plan is discussed at multidisciplinary meetings chaired by an 'independent' GP and including a geriatrician, a social worker, representatives from the third sector (such as Age UK), community nurses and palliative care specialists.

This approach is also the trigger to cleaning up the bare wires of tangled IT systems. The ultimate aim should be for the care manager to have control of an electronic patient record (EPR, incorporating, perhaps, the NHS app, CoordinateMyCare) that is 'interoperable' and visible to all who will have contact with the patient, including family members. When one of the patients has an acute event and is rushed to A&E, the care manager would be alerted and would go to the hospital to work with hospital clinicians to stabilise the patient and move them quickly out of hospital. The EPR also provides the platform to benefit from the remarkable advances being made in genetic medicine (discussed further in Part 3 of this paper). When the clinical history of a patient is combined with that person's genomic (their genotype or DNA profile) and phenotypic (environmental and behavioural factors) information, exciting new horizons open up in terms of drug development (as 'big data' finds new cures), 'Personalised Medicine'[80,81], and customised treatment plans.

IT projects, such as Connecting for Health, have a very poor track record in the NHS, but technology is a vital ingredient of productive reform. Encouraging lessons can be learnt from other countries, such as Singapore:

"Great [ICT] projects create a strategic plan and don't encourage mission creep, put healthcare professionals and patients in the lead, and ruthlessly focus on core elements and build out….Many of these characteristics can be seen in Singapore. Public hospitals have been sharing patient data since 2004 but the introduction of the National Electronic Health Record in 2011 signalled a shift in gears. Increasingly, all hospitals, community facilities, general practitioners and long-term care homes are linked up, enabling the full analysis of clinical, financial and operational data so that healthcare value can be assessed, because outcomes and costs are better integrated and appreciated."[82]

And Israel:

"The Clalit[83] medical director…was clear that the success of the Health Maintenance Organisation (HMO) was based on the cooperation between family doctor and hospital specialist to provide a 'medical-social perspective for the care of the individual, the family and the community'. They invested intensively in online personal medical records which enable the patient and specialist to engage in discussion, treatment and follow-up, and have developed innovative telemedicine

programmes which complement Israel's position as a global technology innovator. The primary care-led HMO system developed in Israel is a great case study for many countries trying to develop a cheaper, less hospital-dominated model."[84]

The high-risk care management programme requires the enthusiastic and skilful embrace of modern technology.

There is a subset of patients who are going in and out of hospital even more often – perhaps four or five times a month. These patients are very sick and cost a huge amount of money to serve. They are 'Super-Utilisers' and they need a separate, more intense, service. In the case of Bromley, there are about 30 identified patients in this cohort.

There are two further dedicated, patient-centred programmes. One that provides chronic disease management (CDM) for people suffering from chronic illnesses such as cancer or COPD.[85] CDM is an integrated care approach to managing illness that includes screenings, check-ups, monitored and coordinated treatment, and patient education. It is common practice in Europe and the United States, but not yet at any scale in the UK.

Similar personalised care pathways are needed for those people living with mental health conditions. The UK has no systematic programme for looking after troubled and vulnerable children and adults over full cycles of care. The need is especially urgent for young people given that 75 per cent of adult mental health problems start before a person is 18 years old[86], and are currently poorly provided.

A case study of how Partners Healthcare in Boston Massachusetts has introduced a high-risk care management programme is described below.

PARTNERS HEALTHCARE IN BOSTON, MASSACHUSETTS: SHAPING PRIMARY CARE AROUND PATIENT PATHWAYS

Partners HealthCare is a Boston-based non-profit hospital and physicians network that includes Brigham and Women's Hospital (BWH) and Massachusetts General Hospital (Mass General), two of the nation's most prestigious teaching institutions. The model for these changes has been the Medical Home and the associated Care Management Program (CMP), which is applied to Medicare patients who are high cost due to their frequent attendance at acute hospitals.

In the CMP, nurse case managers, operating out of GP practices, are assigned a cohort of high cost patients. Case managers provide patient education and connect patients with resources to address medical and psychosocial needs to help prevent acute exacerbations of disease and associated inpatient admissions and emergency room (A&E) visits, which have fallen, as a result of the program, by 8% and 6% respectively. The program also includes components to address mental health issues, evaluate complex pharmaceutical regimens, and support end-of-life decision making.

In addition to improving the quality of care and outcomes for Medicare beneficiaries, the CMP is part of a larger program to restructure the model for primary care practice characterized by high patient and physician satisfaction, work flow and process improvement, and the delivery of evidence-based care.

Case managers conduct a comprehensive assessment, supported by an electronic patient record (EPR) to evaluate the unique needs of each patient and continuously review self-management activities, such as getting exercise and eating a low-salt diet. Case managers also educate patients about the purpose of their medications and other treatment interventions to help increase patient adherence to care plans.

Case managers receive paged messages when their patients are admitted to the emergency room (A&E) and an email indicating an inpatient admission. Case managers then visit their patients in the hospital and research the cause of the hospitalization to inform refinements to the patient's care plan that may prevent future inpatient stays.

Partners invest considerable personnel resources to develop and implement its CMP. Not only is there the recruitment of nurse case managers, but the program has a well-resourced management team and a community resource specialist for each cohort who addresses non-clinical issues such as transportation and housing needs.

The program has achieved substantial cost savings. For every management dollar spent, Medicare received $3.35 in return in the form of lower cost increases. Most significantly, mortality rates have fallen substantially.

The 'corner shop' GP surgeries should be amalgamated into polyclinics with 24/7/365 urgent care centres to keep people out of busy A&E departments. They should be furnished with diagnostic equipment, such as CT scanners, and specialised services, such as 'social prescribing'. This would, in the example of Bromley, consolidate the existing 44 GP practices into 6 or 7 polyclinics covering populations of about 50,000 people each. Polyclinics are proving successful in other countries, such as Singapore,[87] New Zealand, the Netherlands, and Sweden.

Educating people to manage their health better, both to prevent illness but, if it occurs, to manage it effectively is not well done in the UK. Only 5 per cent of the NHS' budget is spent on prevention.[88] And much of that money is spent wastefully on notice-board flyers that have little impact, especially on the social-media-fluent younger generations.

The distinct psychology of each person requires a different route to, for instance, stopping smoking, or assisted living. This needs to be a part of their designed pathway in the devolved Health and Care System. There is a growing body of evidence that personalised public health treatment plans are more effective than advertising campaigns. A recent study on personalised health programmes reported a 6 per cent reduction in reported rates of coronary disease and congestive heart failure.[89]

Encouraging people to take more responsibility for managing their own health, and teaching it in schools, is a priority in the 'pivot' to a more holistic and preventative emphasis.

System leaders like Angela Bhan who have the right experience and credibility should be given executive authority over the several agencies that deliver primary and community care in places like Bromley. This would

save much time getting cooperation from agencies that have no statutory requirement to offer it. While the agencies in Bromley did sign on to One Bromley, such compliance is rare.

The primary care/GP system - which is mostly reactive, in which average consultation times are under ten minutes, and where the time to get an appointment is lengthening - is highly unsatisfactory, and unsatisfying to both patients and GPs.

"Primary care in England's NHS is in crisis. Recruitment of GPs is difficult throughout England, with many practices reporting vacant posts; many GPs are considering retiring early, and others want to cut down on their clinical work. In a survey of primary care carried out by the Commonwealth Fund in 11 countries GPs in the UK were the most stressed. UK GPs also reported high levels of dissatisfaction with their style of work."[90]

GPs need to be fully employed by the NHS[91] and directed to work as part of a comprehensive and coherent team. There is a growing trend for GPs to prefer being salaried,[92] but many still need to be convinced that the NHS would be a good employer. The next 'turn' of the GP contract should take the final and decisive step to making GPs salaried, but only in the context of making such a status more satisfying and rewarding than it currently is. More flexible arrangements for a better life/work balance, and more allied health professionals to take routine tasks away from the GP would ease the path considerably. GPs are almost universally supportive of initiatives like the high-risk care management programme which allows them to deploy their skill and training to improve patient care.

More GPs are clearly required, but without the reforms outlined above, merely adding more GPs in a system that is dysfunctional will give only temporary relief and will under-deliver in terms of better patient experience and outcomes.

2.4 A&E AND THE EMERGENCY PATHWAY

Re-configured primary care focused on patient pathways, polyclinics with Urgent Care Centres (UCCs) open 24/7/365, more efficient management of hospital discharge, and a re-built community-based care infrastructure will go a long way to taking the pressure off A&E. However, A&E and the associated emergency pathway in most parts of the country can benefit from better management and organisation.

There are five areas that determine the efficiency of the emergency flow: triage at the front door of A&E; tight management within the A&E department; a 'whole hospital' perspective; increased resource; and, possibly, more hospital beds.

The first task is to reduce the congestion in A&E by getting as many patients who are not seriously ill discharged back home as soon as possible. This requires that they are assessed at the 'front door' by experienced clinicians and then sent to the most appropriate of three settings:

- People who are 'critical' are sent to 'Majors'[93] and probably admitted to a bed in the hospital;
- Patients who do not need to be admitted but will probably require more than 4 hours to stabilise should go to Ambulatory Emergency Care (AEC). In AEC, many common conditions are treated, including headaches, deep vein thrombosis, cellulitis, and diabetes;[94]

- Patients who require GP services (Type 3 attendance) should go to a separate UCC, located in a polyclinic. Other pathways can be devised to further take the pressure off A&E, such as "…mental health, primary care, dentistry and community pharmacy. This can include colocation of frailty services for older people with multidisciplinary teams supporting flow to avoid unnecessary admissions."[95]

Triage at the front door was ineffective at King's, and A&E was often a mêlée. Fifty to seventy per cent of the patients breaching the 4-hour waiting time target were eventually discharged[96] due to inefficient triage, no AEC and a poorly functioning UCC.

As much as a further 40 per cent of the breaches at King's were because a clinician had not seen the patient within 4 hours. Partly, this is due to the crush of people arriving at A&E, but it's also to do with management. A clinical supervisor who encourages clinicians to 'lift their eyes' and keep patients moving through the process is required. This is not easy, and medics will say, 'so, you want us to 'lift our eyes', become a manager, clock watch, stop being a doctor and kill people!' It will take time but agreed protocols and benchmarks can be achieved that satisfy both the need for timely patient flow and professional integrity.

The visibility of information to support timely decision-making in A&E is very poor. Partly, it's due to under-investment in systems and partly, it's poor management. Statistical Process Control is rare in the NHS, and the clunky systems are a drag on efficiency. At King's A&E, the average 'screen time' per patient was seven minutes. If this was reduced by just two minutes, it would save nearly two 8-hour doctor shifts every day.[97]

Up to 10% of breaches were due to long waits for a specialist diagnosis. There needs to be a manager with executive authority across the whole hospital – a Site Executive – who has sole responsibility for the emergency pathway and can compel – sanction if necessary – the specialities to roster effective care for the flow of their patients through A&E. Efficiency would be improved further if the hospital were alerted by the ambulance service if a specialist will be required upon arrival at A&E. When a specialist does the first diagnosis, the decision to admit or discharge can be made with greater despatch. Evidence shows that specialists are more likely to advise discharge than would an A&E consultant.[98]

A&E is only the first part of a longer emergency pathway. With about 150 people being admitted to a bed daily at King's and the hospital running at full capacity, any delays in the efficient journey of patients cause them to stack up in A&E.

Up to 60 per cent of breaches can be caused by the lack of an available bed. The Site Executive requires responsibility and accountability for hitting strict metrics of 'flow'. This should start every morning with a 7am meeting (repeated every two hours) in a high-tech site management room where each bed and patient is mapped electronically. Patient notes should be clearly available, giving both clinical and social information (available care packages, responsible family members, etc.), so that rapid decisions can be made about movement to a less acute ward or discharge home. This vision of a site management 'control tower', with regular 'quality huddles' as designed by Intermountain,[99] a major US provider, exist in some hospitals in the NHS, but it was far from the case at King's. As late as December 2017, bed management meetings were chaotic, low tech (a white board), and only sparsely and intermittently attended by Ward Matrons.

The Site Executive is line-responsible for tightening up commonly lax ward practices, driving as many discharges before 1pm as possible, ensuring that pharmacy is supporting that objective (providing just-in-time discharge prescriptions), and regularly updating clinical notes. The Acute Medical Units (AMUs) are the most difficult wards because they contain acutely ill patients – often disorientated, due to dementia, frail elderly patients with complicated co-morbidities – about whom the judgement as to whether they are sufficiently medically stabilised to be moved is often disputed. Evidence-based Standard Operating Procedures (SOPs) and Lean Production techniques should be commonplace in the AMU, as well as throughout the hospital. In addition, *'all Acute Medical Units should be developed on an 'assess to admit' basis and not 'admit to assess'. The design of AMUs with chaired areas help to suggest it is an assessment unit and not necessarily a prelude to admission.*'[100]

Whilst better triage, better management within A&E, and better 'whole hospital' management will all help, there is still a need to increase resource in A&E. There are two reasons for this. The first is the nature of 'flow', and the second is the increasing complexity of patients attending A&E.

Both patients and staff are in high stress situations, whether it's the harassed clinicians or the anxious, often pain-ridden patients, surrounded by inevitably 'on-edge' relatives. It is a volatile and unpredictable environment.

What is more, the flow dynamics are stochastic. This is illustrated in an analysis of the clauses of breaches of the 4-hour target at King's on April 3rd and April 6th, 2019. Of the admitted breaches,[101] lack of beds was a major problem on the 3rd (accounting for 60 per cent of the breaches), but not on the 6th, when this only accounted for 14%. Conversely, on the 6th, 'awaiting 1st clinician' (at 60 per cent) was the major problem, but this only explained 6 per cent on the 3rd. This represents much greater variability than in nearly any other industrial process, making it much more difficult to manage.[102]

Efficiency can be improved by using modelling and, in time, Artificial Intelligence (AI) to match clinician rotas to peak flows. Nonetheless, the nature of this particular type of 'flow' means that there needs to be staffing to meet 'peak flow', which will inevitably lead to some downtime for clinicians.

Secondly, the clinical task is becoming harder as the population ages, often while also doing harm to themselves (through alcohol, for instance). This results in increased co-morbidity and medical complexity, demonstrated by the rise in the most complex cases (Type 1 patients):

"Compared to 2011/12, attendances at type 1 (major) and all A&E departments have increased at a faster rate than growth in the general population. Emergency admissions via type 1 (the most acute) A&E departments, which account for over 70 per cent of all emergency admissions to hospital, have increased at an even greater rate than attendances".[103]

A further problem at a hospital like King's was the high level of violence in the A&E department. The Denmark Hill hospital serves the most deprived regions of Lambeth and Southwark. Drug and gang violence are rife, and knife injuries are common. Physical violence against staff occurs several times a week, meaning that the A&E department at King's is very rarely absent of police or security staff. The problem is exacerbated by the rapid decline in secure mental health beds over the last 10 years, from about 20,000 to 16,000 beds. A mental health patient at King's awaiting a scarce secure psychiatric bed stays, on average, over 17 hours in A&E.

These three factors – the 'human' factor, stochastic flows, and increasing patient acuity (both physically and mentally) - mean that more resource is required in A&E. A further consequence is that more hospital beds may be needed.

The United Kingdom has one of the lowest levels of hospital beds per capita in Europe, with 2.8 beds per 1,000 people compared to 8.3 in Germany and 6.3 in France.[104] The number of overnight NHS hospital beds has decreased over time for all bed types.[105]

It is arguable whether or not more care home beds and, more broadly, better community-based care (especially more mental health beds) and more efficient discharging of patients from hospital will mean that the current stock of acute beds will be sufficient. There is a danger that if more acute beds are installed, then managers and clinicians will fill them and stop looking for out-of-hospital options. The increasing complexity of patient conditions might well require an increase in the stock of available acute beds, but this data-driven assessment should only be made once all the out-of-hospital actions have been implemented.

It will be clear from this description of what goes on in A&E and the wider hospital that the solution is not a 'flick of a switch'. It requires advanced management skill in an NHS that has too few, often under-trained and under-supported managers, who operate in spans of control that are too narrow and lack a devolved mandate. To turn around A&E and the Emergency Pathway at King's, over 100 key people need to do things differently, and coordinating this type of sustained change in a deluged hospital is very heavy going. A recent survey of an NHS Trust in the west country found that there was a culture of 'learned helplessness and crisis mentality'.[106] This most likely applies to much of the country, and it is a core managerial task to identify and, over time, fix it.

Reform is urgent as A&E performance is fast deteriorating:

"Waits at A&E departments in England have hit their worst levels since records began, official NHS statistics have shown".[107]

This deterioration is not only damaging to patients, it is also a major political concern because A&E performance is the single biggest driver of public opinion:

*"A&E appears to be the one area of NHS operations which has a direct impact on the public's view of the service. Mr Page (CEO of Ipsos MORI) stresses that what impacts the public's view is experience, not outcomes. A&E is the NHS' 'shop window' he says, where the public can see with their own eyes how the NHS is faring. 'You can't really see [elective] waiting lists,' he adds….'If they go home and say, 'it was a f*****g nightmare in my hospital today', that has a huge impact."* [108]

The case study below describes the efforts that the Erasmus University Hospital in Rotterdam has taken to ease the pressure on A&E.

ERASMUS UNIVERSITY HOSPITAL: RELIEVING THE PRESSURE ON A&E

The Erasmus University Medical Centre in Rotterdam is the largest hospital in the Netherlands. It is about the same size as King's Denmark Hill, with over 1,000 beds, serving a population of over 3 million people. However, it is far better managed than King's in terms both of its internal operations and its broader health and care hinterland. For example, instead of its A&E department being overwhelmed with over 400 attendances a day many of whom wait hours for treatment, Erasmus has 100 attendances, and all are treated within a couple of hours. How has Erasmus managed to outperform King's so spectacularly? The reason is better management both within the hospital and across the broader health and care setting, supported by unitary decision-making in clearly demarcated territories. There is one commissioner for all health and care services in the hinterland of 3 million people. The fragmentation that is so damaging to the UK system is greatly reduced in the Netherlands.

The pressure on A&E is reduced by three key results of a more joined-up system.

- Primary care is required to operate polyclinics that are open 24/7/365 and provide urgent care. Moreover, GPs are financially penalised if they send patients inappropriately to A&E. Each patient attending A&E is audited to determine if attendance was necessary and this forms the basis of any recourse to the GP. It also builds an evidence base that is used for decisions on how to reconfigure services. For instance, a decision might be made to better equip the polyclinic to treat urinary tract infections (UTIs) if these are shown to be a major cause of patients attending A&E;
- The commissioner of health and care services within the 3 million population has brokered agreements between the six hospitals in the system to specialise on certain conditions. Erasmus is the major tertiary hospital, so common cases of, for instance, hip fractures are directed to sister hospitals so that Erasmus can concentrate on tertiary cases;
- This innovation, of course, has the ambulance service at its core, so that the ambulance crew know where to take a patient that has been diagnosed with a hip fracture. Moreover, the ambulance service radios ahead to the A&E departments of the hospitals to alert the clinicians of the initial diagnosis which allows specialist consultants to be present when the patient arrives.

All of this is complemented by efficient and well-resourced hospital management, with well-structured incentives. Triage at the front door of the A&E department is rigorously managed, for instance, and specialist consultants are penalised if they are not at the front door when the patient arrives. Specialities, such as orthopaedics and ophthalmology, have to contract each year for the amount of operating theatre time that they will use and, again, are penalised if they don't meet their commitments. Theatre utilisation is, as a consequence, consistently high at well over 90%. The CEO of Erasmus, a gastroenterologist, explains that these efficiencies, both within the hospital and more broadly, took some hard work. But, he explained, they were more easily achieved given clear spans of control for management and executive authority to make the changes happen. Visitors to the UK, such as the CEO of Erasmus, are regularly surprised by the byzantine nature of the British system.

2.5 IN-HOSPITAL SPECIALITIES

Surgery waiting times at King's were amongst the worst in the country, with hundreds waiting over a year for their operations. King's has 23 specialities operating across the Trust. Most of them were contributing to the financial loss (a deficit of £180 million in 2018), and operational difficulties, but high on the list was the trauma & orthopaedics (T&O) function. It was losing (before overhead) over £10 million a year. In addition, the trauma service was inefficient, with patients often waiting more than two or three days to get their surgery. And operating theatre utilisation rates were poor, in some cases as low as 55% (a well-managed hospital should run at rates of 95%).

The decision was made to put intensive effort into turning around T&O to produce a model that would then be rolled out to the other specialities.

The turnaround at King's coincided with two helpful programmes. 'Model Hospital' benchmarks best practice throughout the NHS, and 'GIRFT' engages clinicians in taking control of their environment and using a strong evidence base to improve productivity and patient outcomes. The Model Hospital was led by an NHSI non-executive Director, Lord Carter[109], and GIRFT by an eminent orthopaedic surgeon, Professor Tim Briggs.[110] Over the course of the year, from December 2017, Patrick Carter and especially Tim Briggs, who was on the phone with the team nearly every day and physically at the Trust every other week, were impressively supportive.

In a national survey, the GIRFT team had found large variations in practice and outcome in T&O and widespread instances of poor, sometimes dangerous, practice. For instance:

'Experienced dedicated orthopaedic theatre teams have become the exception. The complexity of surgery and the relative inexperience of many staff rotating through create a potentially unsafe and poorly productive environment.'[111]

King's was fortunate in having a progressive and committed clinical lead in T&O. Ramon Tahmessabi, and 6 or 7 of his colleagues, were eager for change and led the improvement programme, often in the face of opposition from some of their colleagues.

Job plans are an essential part of a well-run hospital. Whilst everyone across the organisation had a job plan 'in theory', they were in fact little more use than the paper they were written on. Very few consultants were held to their job plan, and the plans were often inconsistent with actual clinical activity for the department.

A job plan is an agreement that sets out the duties, responsibilities, accountabilities, and objectives of the clinical staff. In the case of King's T&O, that covers 32 consultants, over 80 junior doctors, more than 300 nurses and therapists, and about 50 admin staff. Moreover, T&O at King's is complex: it has to operate as one of London's four Major Trauma Centres and a tertiary referral centre, all while delivering high volume elective orthopaedic surgery.

These numbers give an indication of the challenges of managing a complex hospital – and T&O is only 4% of King's total clinical activity.[112]

Job planning was a mammoth task, necessarily led by Ramon and his colleagues who had the clinical knowledge and credibility to agree, and in some cases impose, the job plans.

A key achievement of the programme was that two theatres (9 and 10) at Denmark Hill became dedicated orthopaedic trauma theatres, greatly increasing capacity and beginning to solve the problem of patients waiting days for their operation. This was partly facilitated by separating trauma emergency ('hot') from planned elective surgery ('cold'), moving as much of the latter as possible to Orpington, part of the King's group and a hospital with no emergency services.

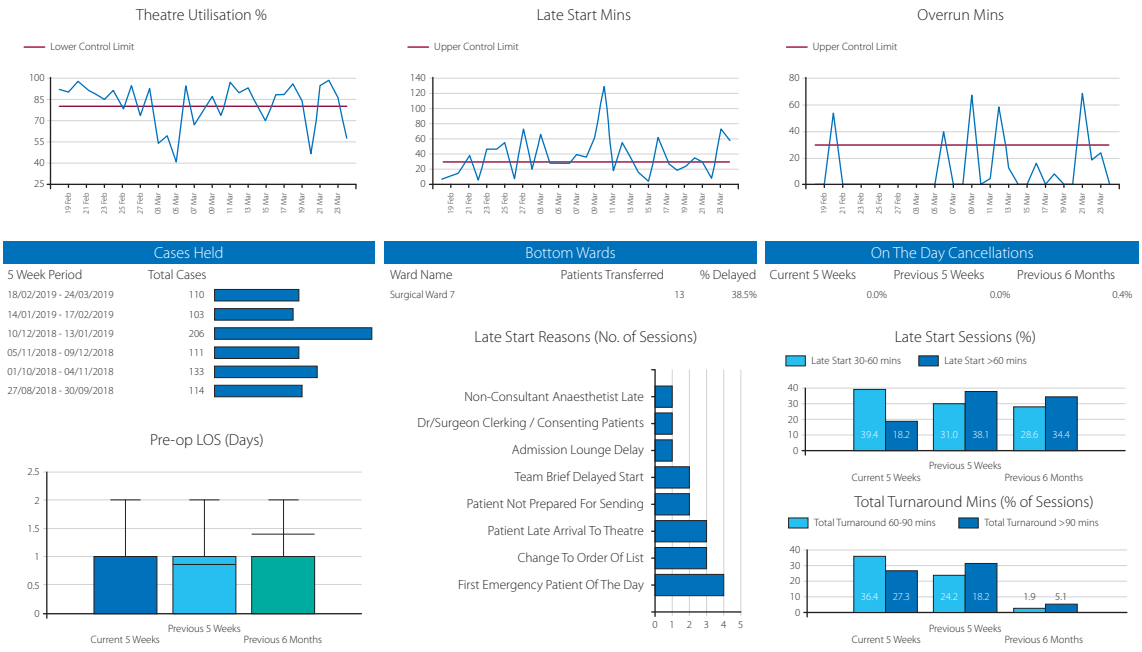
Moreover, the new job plans enabled a two-tier rota, enabling one consultant to be in theatre while the other led a ward round followed by a virtual fracture clinic.[113] This model promoted: senior decision making and treatment plans; a consultant-delivered service (as opposed to a consultant-led service as before); early discharge; and a large improvement in performance metrics, such as pre and post-operative Length of Stay (LoS) and theatre utilisation. King's is now achieving Best Practice Tariff (BPT) and the BOAST 4[114] standards for trauma patients.

Administrative procedures were tightened up considerably from January 2018. For instance, theatre lists were drawn up six weeks in advance with staff holidays being set well in advance.

Operational benchmarks were introduced for productivity. For example, it was mandated that four joint replacements per all-day operating list should be achieved, operations would start at 8am sharp (instead of previously common 'late starts' by as much as two hours), and no end-of-day operations would be cancelled simply because they were going over time (previously, the last patient on 10% of theatre lists was cancelled at the last minute).

Visibility of metrics was a key part in keeping momentum going. One example dashboard, for Trauma Theatre Key Performance Indicators (KPIs) at King's Denmark Hill, is shown here.

Figure 5: Trauma Theatre KPIs Across PRUH



Source: King's College Hospital

Enhanced Recovery (ERAS[115]) was introduced to reduce patient length of stay and to free up beds. Recovery time for patients was shortened by the targeted 30%[116] and complication rates after surgery began to decline. Tighter management control and demonstrable improvements in efficiency markedly improved morale amongst clinicians, both doctors and nurses, as they took pride in their achievements and felt more directly in control of their work environment.

As a result, there was a significant increase in theatre utilisation and an expansion of capacity. There were extended operating times, including weekends and evenings, at all three hospitals. Theatre utilisation at both the PRUH and Orpington was running at 85% and rising.

Change is difficult in the face of ingrained practices, massive constraints at a busy hospital, and years of insufficient management and under-investment. Talk of 'change' was met with weariness by many clinicians.

Senior and middle management were previously over-stretched, so the core management team of about 10 full-time equivalents in T&O had to be nearly doubled, and sustained, in order for the changes to work.

The business case for T&O identified an attractive return on an investment of £3 million. However, there was much resistance to making this investment, since capital budgets are thin at the best of times in the NHS, and even then are too often raided to cover short term operating losses.

There were three features of the GIRFT programme that were determinative: clinicians on-the-ground re-taking control of their environment (most clinicians feel that they are victims of distant and arbitrary decision from 'on high'); an evidence-based approach, rather than seemingly random, imposed changes; and the primacy of improving patient outcomes, the key motivator for clinicians.

Finally, leadership was vital. Senior management were highly committed to the programme, and the commitment, medical credibility, and cogency of, especially, Tim Briggs and Ramon Tahmessabi were seminal.

PART 3: EFFECTIVE GOVERNANCE TO GIVE UNAMBIGUOUS AUTHORITY TO FULLY ACCOUNTABLE MANAGERS AND CLINICIANS

3.1 DEFINING POPULATION HEALTH

Managers and clinicians need to be responsible and accountable for clearly defined jurisdictions. In the local state there are two complementary and tightly connected streams of management. The CEO of the Health and Care System sits alongside the CEO of the devolved, regional strategy for education, employment and housing.

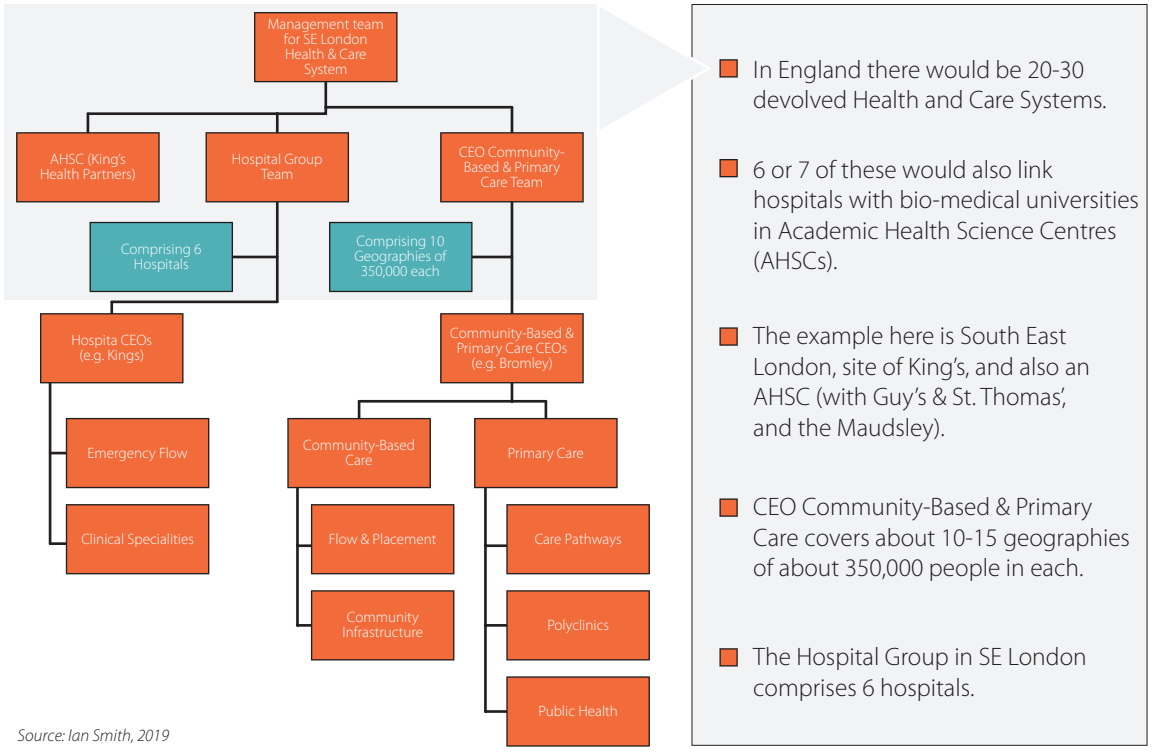
The hierarchy for the Health and Care System, varying as appropriate by geography, is:

- **2-5 million people** in the 'natural' Health and Care System (congruent with the economic footprint of the devolved local state, discussed in Part 1). For economy of scale, this would be driven by patient volumes and the experience curve, in specialist secondary and tertiary medicine. This should vary based on local morphology, geography and community dynamics (social relationships, 'belonging', etc.).[117] This would then comprise:
  - 10-15 units of **350,000 people** for efficiency in integrated health and social care for activities, such as IT support, continuous professional development, and certain specialised services, especially the presence of a District General Hospital (which typically covers populations of about 700,000). Finally, this would comprise:
    - 6 or 7 units of about **50,000 people** each with a 'polyclinic'. These are also the home-bases, the 'Medical Home',[118] for teams of about 3-4 care managers, as described in the case of Bromley, each managing a cohort of about 80 high-risk patients. This multiplies to 240-320 high-risk patients per polyclinic and 1,440-1,920 high-risk patients, bracketing the 1,700 identified high-risk patients in the Bromley example.

3.2 CLARITY OF PURPOSE AND AUTHORITY

Clarity of authority, management, and leadership over all services is vital, and the organisational structure – to be achieved bottom-up and over time and driven by responsible managers and clinicians at the coalface – is illustrated here using SE London as an example.

Figure 6: Concept Structure



Source: Ian Smith, 2019

These changes should **not** be another top-down reorganisation. The history of the NHS since 1948, and especially since the mid 1980s,[119] is one of regular reorganisations. These are usually motivated by the best of intentions as politicians and NHS managers acknowledge the inadequate outcomes that the system produces. But the result is nearly always to make things worse. The problem in Whitehall and Westminster is not a lack of policy, but rather too little action on the ground. As an example, the moves over the past year towards Primary Care Networks (PCN), which typically cover about 50,000 patients and are led by a local GP in a clinical director role, is good policy.[120] However, there is a danger that this centrally-driven initiative will actually cut across resolute action on the ground,[121] and end up taking the service backwards. This can be avoided by tasking the system leaders with defining clear roles and responsibilities. These contracts should be tailored to local circumstances, and should be written by the devolved authority, the city or county Health and Care System, not centrally.

The well-intended policy statements and constant reorganisations are highlighted in this piece written by Mark Britnell, an experienced NHS manager and now a successful manager and consultant at KPMG who has worked in healthcare systems across the world.

"If health reorganisation was an Olympic sport, the NHS would take the gold medal. Repeated government-instigated reorganisations over the last 40 years expose an unfavourable consequence of politicised medicine…. Depending on how one counts significant national policy initiatives and laws, the NHS has (conservatively) witnessed 12 in the last 26 years. On top of this the NHS has…seen at least two wide-ranging reports each on health inequalities and long-term aged care. This gives an average policy gestation and birthing period of about two years. Further, in my experience, more energy is spent producing national policies than ever implementing them….The NHS has an overactive policy thyroid that needs medication….Organisational upheaval cannot produce sustainable clinical change and the repeated modifications to commissioning are a serious distraction".[122]

As one NHS leader has said:

"We love a vision and a plan. When it gets to a difficult decision we go back to developing a vision and a plan".[123]

Change is vital, and organisational boundaries sometimes need to change to be better shaped around changing epidemiologies, but the NHS's version of change has, unfortunately, given 'reorganisation' a bad name. There is a lot of activity, but no real change. It has been said that if you go away for 2 weeks and return to the NHS, everything has changed. But if you go away for 20 years and return, everything is the same as when you left it.

Mark Britnell highlights the attractive but bold criteria for change outlined by the Institute of Medicine in the USA.

"In its landmark report Crossing the Quality Chasm the highly respected Institute of Medicine in America identified four vital ingredients for high-quality systems and care."[124]

The first vital ingredient is vision - more specifically, what has subsequently been called the 'triple aim' of better experience of care (safe, effective, patient-centred, timely, efficient and equitable), better health for the population and lower per capita costs.

The second ingredient is to focus on the design of the clinical care process from the patient's perspective.

The third is that care organisations need to be linked and integrated into care systems. As Don Berwick and others have argued in the New England Journal of Medicine, 'we need organisations large enough to be accountable for the full continuum of care as well as for achieving the triple aim'.[125] *They believe that high-performing health systems will only be established if 'integrated delivery systems become the mainstay of organisational design'.*

The Institute of Medicine's fourth ingredient vital to high-quality systems and care is the wider environment which includes regulation, education, legal and financial systems. They make the obvious but difficult point that wider environmental forces need to be aligned and facilitate collaboration and cooperation among healthcare professionals and across healthcare organisations.[126]

The solutions recommended in this paper should be 'worked up' over a number of years, driven by the people on the ground – people such as Angela Bhan in Bromley and Ramon Tahmessabi in T&O at King's.

Covering 2-5 million each, there would be about 20-30 'natural' Health and Care Systems across the country (given the 56 million population in England).[127] Six or seven of them, based on the leading bio-medical universities in the country, would also be Academic Health Science Centres (AHSCs), which will be discussed shortly.

On top of being in the chain of command, the CEO of the 'natural' Health and Care System, encompassing both acute services and population health, has three major functions. They are to: improve safety by consolidating clinical units; de-clutter' hospital sites by moving as many activities as possible out of the hospital and into 'scale-efficient' service centres; and create an 'orderly market' by smoothing fragmentation.

3.3 CONSOLIDATING CLINICAL UNITS

Consolidating clinical units into fewer, larger centres improves quality and safety.

A substantial body of evidence shows that the volume of activity is positively correlated with patient outcomes. As McKinsey have stated: [128]

"This relationship has been established in many areas of planned care - including joint replacement surgery, cataract surgery, paediatric surgery, and cancer surgery—as well as in acute care (e.g. for major trauma, strokes, and heart attacks)."

This process of amalgamating sub-scale units into centres of excellence is progressing agonisingly slowly in the UK due, mostly, to the lack of executive authority and management competence. It is also confounded by the 'save my local hospital' lobby groups which compromise patient safety. It is an unenviable task, but responsible politicians, clinicians and senior NHS leaders need to face down this lobbying using the strong evidence-base that exists.

In the case of the King's T&O example, there was a teasing apart of the different activities involved in this speciality. The separation of trauma surgery ('hot' activity at Denmark Hill and the PRUH) from elective ('cold' activity at Orpington), and the consolidation of certain sub-specialities (in this case, increasing ortho-plastics capability at King's, and moving fractured neck of femur cases to Guy's & St. Thomas') should occur at the scale of the 2-5 million population.

Outpatient management is often chaotic. This was the case at King's, which serves, across both hospitals, 1.4 million outpatient appointments a year. This activity needs to be 'tidied up' across the catchment area of 2-5 million people.

3.4 STREAMLINING HOSPITAL SITES

The growth of hospital services on most sites in the UK over the last 50 years has been unplanned. This has combined with low investment in estate rationalisation to result in cluttered and often maze-like hospitals.

Many support services – such as diagnostic imaging, phlebotomy, procurement, and routine pathology – do not need to be on an acute site. They can be made both more responsive to patients and lower cost if they are consolidated into scale efficient, shared service centres.

3.5 CREATING AN 'ORDERLY MARKET'

It is vital that the CEOs of the Health and Care Systems are constantly joining up services and patient pathways in their patch. That does not mean that they should banish competition, but it does mean that they should create an orderly market. The issue of 'privatisation' is an emotional one in the NHS. The plain logic for competition in health and social care is compelling: whichever provider – public, private or charity – that can deliver the best sustained outcomes for the patient at the lowest cost to taxpayers should get the right to provide the service. But having achieved the goal of integrated services through clarity of authority, it is important that the Health and Care System CEO avoids then splintering it again by piecemeal outsourcing.

In this considered way, there is a place for the private sector in health and care. There is much scare mongering about privatisation of the NHS, but in fact the British public does not fall for it. Only 10% of the public insist on being treated by a public sector provider:

"The remainder are 'pragmatic' and, if the care is free, will be content to be treated by private providers."[129]

Indeed, controlled competition is a key mechanism for improving quality and safety. To use an international example, there are 139 transplant facilities in the United States. The best of these transplant facilities is excellent and has a 100 per cent one-year, risk-adjusted survival rate.[130] The worst facility has a 1 per cent one-year, risk-adjusted survival rate. It is clear what a citizen armed with information and a 'vote' will do in these circumstances, and how that behaviour will take menacingly poor practice out of operation and animate the spread of best practice.

3.6 DRIVING A PATH TO 'PERSONALISED MEDICINE'

These are exciting and revolutionary times in bio-medical science. The molecular, biological, and information revolutions (especially the development of 'big data'[131]) of the past 70 years are now leading to fundamental changes in the nature of healthcare.[132]

"Systems medicine has united genomics and genetics through family genomics to more readily identify disease genes....The convergence of patient-activated social networks, big data and their analytics, and systems medicine has led to a P4 medicine that is predictive, preventive, personalized, and participatory. Medicine will focus on each individual. It will become proactive in nature. It will increasingly focus on wellness rather than disease….P4 medicine will be able to detect and treat perturbations in healthy individuals long before disease symptoms appear, thus optimizing the wellness of individuals and avoiding disease. P4 medicine will 1) improve health care, 2) reduce the cost of health care, and 3) stimulate innovation and new company creation."[133]

Productive reform of the UK's Health and Care System is not only urgent in order to improve patient outcomes, but also vital to protect the UK's wealth-creating life sciences industry.

The New Biology, and specifically genetic medicine, means that it is possible to identify the unique DNA profile of an individual and to tailor preventive medicines to it. And if diseases do develop, then unique, personalised treatment regimes can be applied.

"The New Biology (will) make it possible to monitor each individual's health and treat any malfunction in a manner that is tailored to that individual. In other words, the goal is to provide individually predictive surveillance and care."[134]

These developments are permitting the rise of Personalised and Precision Medicine, in which vast amounts of data – including genomic, proteomic, metabolomic, biochemical, personal, social, and lifestyle data – can now be aggregated at the level of the unique individual and used to customise prevention and therapy.[135]

Academic Health Science Centres are the vehicle for delivering the New Medicine. AHSCs are a consolidation of one or more universities and healthcare providers focusing on research, clinical services, education, and training.[136,137]

Due to the constraints outlined in this paper, AHSCs are not reaching their potential in the UK. The elite universities are especially wary of engaging with the NHS, fearful of cross-subsidising the growing losses, or afraid of being infected by the organisational disarray. As depicted on the concept structure at Figure 6, the AHSCs must be a key part of the six or seven Health and Care Systems - based on universities like Oxford University and King's College that are globally excellent in bio-medical sciences - that host them. However, governance and budgets need to be explicit and protected if the universities, and the clinician scientists in them, are to commit wholeheartedly to unitary working.

The stakes are high. The export earning potential of the UK's life sciences industry will be damaged if the Health and Care System is not reformed:

"Health life sciences' refers to the application of biology and technology to health improvement, including biopharmaceuticals, medical technology, genomics, diagnostics and digital health. It has the advantage of very high productivity compared to other sectors, and generates a wide range of products including drugs, medical technology, diagnostics and digital tools, as well as products for consumer health. It is also widely distributed across the whole of the UK and brings significant jobs and growth to virtually every region".[138]

CONCLUSION: A 'CALL TO ARMS'

Structural reform of the NHS is long overdue.

As outlined in **Part 1**, the integration of health and social care will not only be more efficient for hospitals, but it will also be beneficial to the most vulnerable populations. Pooled funding, reformed management structure and devolved authority, and a CQC that promotes learning and growth among clinicians to improve patient safety are essential.

As **Part 2** outlines, there are operational measures that can improve patient outcomes in the short term. Consolidating GP practices into polyclinics would create less stressful work environments for clinicians, while shifting focus from reactive and acute work to coordinating care for vulnerable patients. Restructuring of A&E and Emergency Pathways will improve efficiency; clinicians must be supported in regaining and maintaining control of their clinical environment to reduce stress, low morale, and burnout.

Part 3 prioritises amendments to organisational structure. Refocusing a clear vision on high-quality care is crucial. From this vantage point, devolved health authorities, patients, and local communities can take a bottom-up approach in designing clinical care processes and linking organisations and care systems. This bottom-up approach should be utilised in reforms in regulation, education, and legal and financial systems that affect the local healthcare environment.

Two of the authors of this paper published an article in the Health Service Journal in 2015 making similar recommendations and predicting a crisis if they were not implemented. Five years later, the system is in a deepening crisis. We end this paper with the same exhortation:

'The care system in the United Kingdom has become seriously misaligned with the needs of the UK population in the 21st Century. The NHS was a stunningly bold and appropriate system in 1948. Despite the skill and dedication of UK clinicians and carers, and despite the UK's leadership in bio-medical science, the structures of the NHS have barely evolved since they were formed in 1948. This cussed rigidity would be a major disappointment today, if he were alive, to the major architect of the NHS:

'We shall of course find from time to time that alterations and adjustments have to be made. We are not ridden by doctrine; we are a nation very largely of visionary empiricists, able to adjust things where necessary, and between us we shall have a standard of health service that will be the envy and admiration of the world."[139]

It is time that all of us mobilised to deliver, finally, on Nye Bevan's optimism and sense of duty.'

Endnotes

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2. https://fullfact.org/health/how-many-nhs-employees-are-there/
3. https://www.kingsfund.org.uk/publications/social-care-360/expenditure
4. Hospitals are described as 'secondary' care and GPs as 'primary care', and the two together comprise 'healthcare' and is delivered by the NHS. Social care provides lower acuity care out of hospital and is delivered by local authorities. In this paper, the two will be referred to as 'health and care'.
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About the Authors

Two of the authors have extensive experience managing the front lines of health and social care. One of the authors recently worked in one of the most troubled hospital groups in the UK, King's College Hospital (King's), and this paper draws on his experiences there both to illustrate the problems the health and care system faces and to propose solutions to those difficulties. The third author has been a pioneer in advocating devolved place-based governance that finds local and institutional solutions to inequality and the wider determinants of health.

Ian Smith was Chair of King's, one of the largest National Health Service (NHS) Trusts in the country. He is a non-executive Director at the Ministry of Defence, an Operating Partner at the private equity group, Trilantic, and he advises, and is on the board, of three health and care start ups.

Mr Smith was previously Chair of the Four Seasons Health Care Group, the UK's leading independent health and social care provider, with over 20,000 patients and residents across the country. He was also previously CEO of General Healthcare Group, which owned and operated nearly 70 hospitals (comprising a mixture of acute surgical facilities and psychiatric care) in the UK. During his time at General Healthcare he had a role in shaping the healthcare reforms introduced by the Tony Blair government. He published a book called *Building a World-Class National Health Service* in 2007.

During his career, Ian Smith has been a CEO of Royal Dutch/Shell Group businesses in the Middle East; CEO of Reed Elsevier, an information company; CEO of Taylor Woodrow, the house-building and construction company; CEO Europe for Exel, the logistics and transportation group; and CEO of Monitor Company Europe, a strategy consulting firm. At Monitor Company, he worked on concepts in competitive strategy, national competitiveness, and organisational behaviour with Harvard Business School Professors Michael Porter and Chris Argyris.

He has an MA from Oxford and an MBA from Harvard. He is currently an Adjunct Professor at the Imperial College Business School.

He served on the Parliamentary Review (the Hooper Review) of the Royal Mail that reported in December 2008, and in March 2010 he completed a Parliamentary Review (the Smith Review) on Civil Service relocation and regional strategy, which received full Cabinet approval from Gordon Brown's government. He worked with the Quartet on the Israeli/Palestinian peace process for three years, from 2010 to 2013.

His contribution to this paper is solely in a personal capacity.

Professor Stephen K Smith (Dsc, FRCOG, FMedSci) is the Chair of East Kent NHS Hospital Trust. He is also involved in a number of early stage healthcare 'tech' enterprises. Previously, he was the Dean, Faculty of Medicine, Dentistry, and Health Sciences at the University of Melbourne and Chair Melbourne Health Academic Centre.

Prior to taking up the position of Dean, Professor Smith was Vice President (Research) at the Nanyang Technological University (NTU) in Singapore and was the Founding Dean of the Lee Kong Chian School of Medicine, a joint school between NTU and Imperial College, London from August 2010 to July 2012.

Professor Smith was the Principal of the Faculty of Medicine at Imperial College London from 2004 and has served as Chief Executive of Imperial College Healthcare NHS Trust since its inception, the largest such trust in the United Kingdom, with an annual turnover of £1 billion.

A gynaecologist by training, Professor Smith is active in research and has published over 230 papers on reproductive medicine and cancer. He was awarded his Doctor of Science in 2001 at Cambridge for work on the complex gene pathways that regulate the growth of blood vessels in reproductive tissue. In addition to his academic and clinical work, he is a Fellow of the Academy of Medical Sciences, the Royal College of Obstetricians and Gynaecologists, the New York Academy of Sciences, and the Royal Society of Arts.

Professor Smith led the creation of Imperial College Healthcare NHS Trust, the United Kingdom's first Academic Health Science Centre (AHSC). The trust was launched in October 2007 by the merger of Hammersmith Hospitals NHS Trust with St Mary's NHS Trust, and by its integration with Imperial College, London.

His pioneering role in establishing the AHSC was recognised in the NHS Leadership Awards, where he was named Innovator of the Year in 2009. The Health Service Journal listed Professor Smith in its 2009 rankings of the top 30 most powerful people in NHS management policy and practice in England, where he was the only NHS chief executive to be included.

His contribution to this paper is solely in a personal capacity.

Phillip Blond is an internationally recognised political thinker and social and economic commentator. He founded ResPublica in 2009 and is an academic, journalist and author. Prior to entering politics and public policy, he was a senior lecturer in theology and philosophy, teaching at the Universities of Exeter and Cumbria. He is the author of Red Tory (Faber and Faber 2010), which sought to redefine the centre ground of British politics around the ideas of recovering social solidarity through civil association, mutual ownership and shared enterprise.

His ideas have strongly influenced the agenda around devolution and economic and social transformation and as part of his work on rebuilding social and economic mutuality have helped to redefine British and international politics. Phillip's work on devolution and public services extends back a decade, from *The Ownership State* in 2009 to reports such as *Devo 2.0 The Case for Counties* (2017), *Restoring Britain's City States: Devolution, public service reform and local economic growth* (2015),*The Missing Multipliers: Devolution to Britain's Key Cities* (2015), and perhaps most famously *Devo Max – Devo Manc: Place-based public services* (2014). These reports have driven policy change in, economic development, devolution and whole North approaches in the UK.

He has written extensively in the British and foreign press including *The Daily Telegraph, The Guardian, The Independent, The Sunday Express, The Observer, the Financial Times, Prospect, First Things, UnHerd, the New Statesman and The New York Times*. Phillip is a frequent broadcaster, appearing on the BBC and Sky as well as foreign media. Through both his writing and speaking, he argues for a new economic and social politics that recognises the limits of the liberal policy ascendancy and gives us an alternative to a populism based on ethnicity or sectarianism.

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Society

The UK has one of the most centralised states in the developed world and one of the most disaffected and politically passive populations in Europe. We hold our leaders in contempt, but despair of doing anything for ourselves or our community. The dysfunction at the highest level of society stems from the collapse of our social and personal foundation. There is little doubt that we are becoming an increasingly fragmented and individualist society and this has deep and damaging consequences for our families, our communities and our nation state.

Starting from the bottom up, the collapse of the extended family and the ongoing break-up of its nuclear foundation impacts on all, but disproportionally so on the poor and on their offspring. Too many children at the bottom of our society are effectively un-parented as too much is carried by lone parents who are trying to do more and more with less and less. We know that the poorer you are, the less connected with your wider society you tend to be. Lacking in both bridging and bonding capital and bereft of the institutions and structures that could help them, too many poorer families and communities are facing seemingly insurmountable problems alone, unadvised and without proper aid.

Based on the principle of subsidiarity, we believe that power should be devolved to the lowest appropriate level. Public services and neighbourhoods should be governed and shaped from the 'bottom up', by families and the communities. These neighbourhoods need to be served by a range of providers that incorporate and empower communities. Moving away from a top-down siloed approach to service delivery, such activity should be driven by a holistic vision, which integrates need in order to ascertain and address the most consequent factors that limit and prevent human flourishing. Local and social value must play a central role in meeting the growing, complex and unaddressed needs of communities across the UK.

The needs of the bottom should shape provision and decision at the top. To deliver on this, we need a renewal and reform of our major governing institutions. We need acknowledgement of the fact that the state is not an end in itself, but only one means by which to achieve a greater end: a flourishing society. Civil society and intermediary institutions, such as schools, faith groups and businesses, are also crucial means to achieving this outcome. We also need new purpose and new vision to create new institutions which restore the organic and shared society that has served Britain so well over the centuries.

Society *Society* *Society*

The coronavirus crisis has highlighted two things: the UK's frontline NHS and care staff are skilled and selfless; the system in which they work had serious flaws going into the pandemic and will be even more exposed coming out of the crisis. We owe it to frontline workers to implement measured reforms that smooth the patient journey and enhance the quality of the clinician-patient bond. This report warns against the failed top-down reorganisations of the past, and outlines productive change that has been tested and proven in real clinical practice.

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