75 YEARS OF THE NATIONAL HEALTH SERVICE

THE HISTORY OF PARLIAMENT
British Political, Social & Local History

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SJH
St James's House

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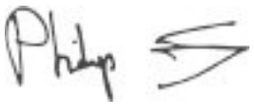
FOREWORD

The National Health Service is perhaps the best-loved institution in the United Kingdom. Its dedicated staff and often astonishing expertise are relied on by just about everyone in the country. Dominating healthcare in the UK, it is not only one of the biggest employers in the world but also the point at which our own lives can be most closely affected by the choices of politicians.

This book charts the history of the provision of healthcare in Britain from the early Middle Ages, when it was a matter of largely voluntary provision by religious foundations, to the present day, when it is one of the largest elements of the British state. On the one hand, drawing on, among other things, the History of Parliament's oral history of parliamentarians, it focuses on the politics of healthcare: how health services in Britain have developed through politicians grappling with the daunting and sometimes overwhelming challenges of disease and deprivation, and how the shape and cost of those services have almost always been the subject of fierce political debate.

On the other hand, drawing on the research of the NHS at 70 and Voices of the NHS projects, it gives a sense of the experience of developing, and running, the National Health Service from its beginnings to the present. Published to mark the 75th anniversary of the formal beginning of the service in 1948, the book provides a glimpse of its complex and often vigorously contested past. It shows how that history has shaped its current form and structure and provides a context for understanding some of the many challenges that continue to face the service today.



Philip Norton
Lord Norton of Louth
Chair, History of Parliament Trust

CLOCKWISE FROM LEFT
NHS England CEO Amanda Pritchard addresses the audience at the 75th anniversary service at Westminster Abbey; the Duchess of Edinburgh is presented with a bouquet at the service; NHS employees attend the celebration

NHS 75TH BIRTHDAY MESSAGE

From day one the NHS has never stood still. It's continually innovating and adapting to meet the changing needs of our patients and communities. And it's brought some major advances, both here and around the world. The first full hip replacement, the first CT scan, the first combined heart and lung transplant, the first IVF baby, the first robotic heart surgery. And just in the last few years, the world's first rapid genome sequencing service for seriously ill babies and children.

Our NHS has operated at the leading edge of science and technology and continues to push the boundaries of what is possible. But we've had our challenges too. Recent years have brought a once-in-a-century global health emergency that's still having an impact today. But throughout, our staff, our volunteers and our partners, up and down the country, rose to the challenge and continue to do what they do best – looking after our patients.

And once again, the NHS was at the forefront of research and innovation: finding the world's first effective treatment for those who are seriously ill; delivering the world's first accredited Covid vaccine; and delivering a vaccination programme that was unmatched around the world for its combination of pace and precision.

So as we mark 75 years of the NHS, we look back on our achievements with great pride, but we can also look forward to the future with confidence, and I want to thank all of our staff, volunteers and partners, past, present and future, for the huge contribution they have made and continue to make to the success of our National Health Service and the impact that it has had on so many millions of lives over the last 75 years.

Amanda Pritchard
Chief Executive Officer, NHS England

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A handkerchief in time
saves nine
and helps to keep the nation fighting fit
COUGHS and SNEEZES
SPREAD DISEASES
ISSUED BY THE MINISTRY OF HEALTH


ORPINGTON


A BIG THANK
YOU TO OUR
NHS


HEROES
NHS


NHS

INTRODUCTION

The National Health Service that we see today is the product of a long history, of both state-provided and voluntary healthcare. Starting with the care for the poor and aged adopted as a pious duty by individual laypeople and religious communities, this book tells the overlapping stories of the development of more sophisticated treatments for disease, of greater understanding of the importance of public health and hygiene, and of more humane and comprehensive services for those less able to fund them. It chronicles the rapid development of hospitals as charitable institutions in the 18th century, funded by subscriptions and donations. It shows how the dangers of epidemic disease that came with rapid urbanisation in the 19th century helped to push the state into taking a growing role in the management of public health services, and how politicians began to recognise a need for the state also to step in to provide a system of health and social insurance for everyone.

The creation of the NHS after the Second World War was an astonishing political and managerial exercise, a leap into a new, and far from predictable, world. Having set it up, politicians and managers struggled to cope with the consequences, to replace outdated equipment and dilapidated hospitals while keeping up with the availability of new technologies and treatments, and a never-ending increase in demand. This book tracks the development of the NHS through these enormous challenges and across multiple reorganisations to become the huge body it is today, with a workforce of around 1.6 million (in England alone) dealing with (in 2021–22) more than 590 million contacts with patients a year. It highlights how, along the way, the NHS has become an iconic institution for the British public, representing, for many people, one of the country's greatest and most admired achievements, embedded in popular culture, the background to countless films, television shows and novels. But it is also argued over like nothing else, its core values seen as continually under threat from hostile politicians of all hues, its performance jeopardised by poor management, problems elsewhere in the system or by the inability to recruit sufficient staff, and its staff always under intense pressure in the face of insatiable demand.

This book brings together the work of the History of Parliament Trust, and particularly its now large collection of oral history interviews with former Members of Parliament, and that of the NHS at 70 project, based at the University of Manchester. Together with its follow-up project, Voices of Our NHS, the NHS at 70 has documented the history of the service through the lived experience of patients, staff and communities, through a collection of interviews with well over a thousand people involved with it in many different ways. This publication explores both sides of the NHS: the continuous and very political battle over how it is funded, managed and organised; and the dedicated and free healthcare made available to "the whole population", as Aneurin Bevan said when introducing the National Health Service Bill. And not just free, but excellent, too: as Bevan continued, "not only is it available to the whole population freely, but it is intended, through the health service, to generalise the best health advice and treatment".

"The NHS has become an iconic institution for the British public, representing one of the country's greatest and most admired achievements"


Anatomia scientiæ dux est
aditumque ad dei agnitio-
nem præbet.
Iohannes Banisser Ætatis
sue Anno 48
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tinentia a ventriculo exeuntur, eadem pene substantia videtur licet aliquantula tenuione. Situs eorum est, ab inferiori ventriculi orificio ad imum usque, abdominisque maiorem partē occupant. Veteres Anatomici antestina in sex partes distinxere, distinctisque singulas nominibus
appellauere. Quo vero si posset tot seculorum copia uocabula uenit aliquid in medium proferre sat esset intestina duo esse dicere, quarum altera tenue est, crassa altera. Sed ut aliorum more ipsa sequamur, sex esse dicemus intestina, duodenum, ieiunum, ileon, cæcum, colon, rectumque.
Tendit in ardua Virtus

CHAPTER 1

FROM CHURCH AND CHARITY TO STATE: HEALTHCARE BEFORE 1900

THE NATIONAL HEALTH SERVICE EMERGED FROM A LONG HISTORY OF INSTITUTIONAL HEALTHCARE, GOING BACK TO THE RELIGIOUS FOUNDATIONS OF THE EARLY MIDDLE AGES AND THE CHARITABLE HOSPITALS OF THE 18TH CENTURY. THE BEGINNINGS OF STATE-RUN PUBLIC HEALTH PROVISION CAN BE TRACED TO THE GRIM CHOLERA AND TYPHOID EPIDEMICS OF THE 19TH CENTURY. BY 1900, THERE WAS ALREADY A NETWORK OF CHARITABLE, VOLUNTARY AND STATE BODIES LOOKING AFTER THE SICK AND INFIRM.

CONTRIBUTORS
Agnes Arnold-Forster
Michael Brown
Paul Seaward

Care for the sick in pre-modern Britain, as everywhere else, was largely an affair of families and local communities. Some sort of medical assistance may have been available from untrained, yet experienced, local providers. Professional medicine, based on the theories of ancient Greek physicians and on the four "humours" (blood, phlegm, yellow bile and black bile), was widely studied and practised, but help from trained medical specialists would only have been available to the wealthy. However, the church was also, and increasingly, involved in the provision of facilities for the poor. The earliest monasteries seem to have taken on some responsibility for looking after the impoverished and chronically sick. Saint Benedict codified those responsibilities in the sixth century for his own order of monks, and the obligation was generally adopted in England as elsewhere. Moreover, other powerful individuals and institutions – kings, bishops, nobles and local guilds – accepted a duty to provide alms for the poor and ill, well before the Norman Conquest of 1066.

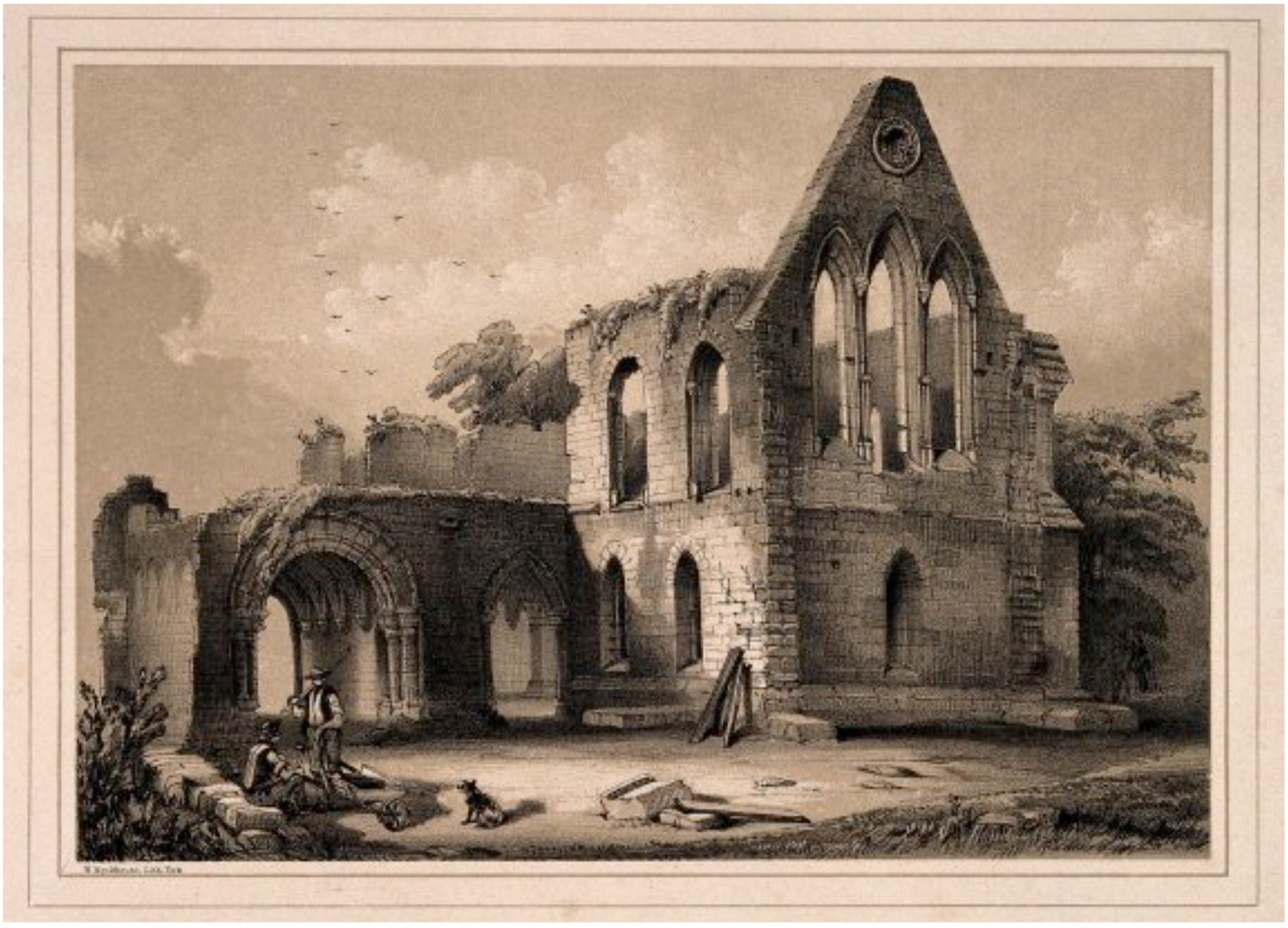
HOSPITALS AND POOR RELIEF BEFORE 1700

The first establishments in England specifically founded as hospitals were the two (one for the infirm and one for lepers) created outside the City of Canterbury by Archbishop Lanfranc in the late 11th century. Leprosy – the horrifying disease, then believed to be highly contagious, which became endemic from around the same period – encouraged the development of such houses as independent and freestanding institutions. Usually funded from endowments by lay people as charitable institutions, there were probably at least 250 hospitals in England by the end of the 12th century; by 1300, that had grown to nearly 500. Some of them were large institutions linked to monasteries, such as St Leonard's in York, or St Bartholomew's at Smithfield in London. But most of them were small, often almshouses providing housing for a few long-term sick people on a very local community basis. Their religious and caring functions were inextricably mixed, even confused: in some cases what was originally a hospital ended up principally as a community of clergy with a chapel or a chantry, with little role in caring for the sick, while other hospitals took on educational functions. Some did provide medical care, but by no means all of them, particularly for poorer inmates. Most provided a service more akin to social care today. They were almost always led by clergymen, though they would have relied on lay brothers and (especially) lay sisters and servants for their operation. They largely fell under the jurisdiction of the church, though were also subject to the rule of their founders and founders' heirs and their usually lay funders.

Many inadequately endowed hospitals were already in decline in the later Middle Ages, particularly after the damage wrought on the country's population and wealth by the Black Death in the mid-14th century. A scarcity of funding meant many were no longer viable. Many that survived ended up using their resources for the welfare of the clergy who operated them, rather than for the welfare of the sick. Some smaller institutions were consolidated into larger ones. Demands for the more effective distribution of funding for the care of the sick was one

PREVIOUS PAGES
Surgeon John Banister (1533–1610) gives an anatomy lecture at the Barber-Surgeons' Hall in 1548; frontispiece to Matteo Realdo Colombo's *De re anatonomica* (1580)

ABOVE
St Benedict delivers the rules of his monastic order, which required them to look after the poor and sick, to St Maurus and other monks of the order; from a 12th-century French manuscript of the "Rule of St Benedict"



ABOVE
The ruins of the medieval St Leonard's Hospital in York, an institution that cared for the poor

LEFT
Located just outside Cambridge, the 12th-century Leper Chapel was one of many hospitals where lepers were provided with shelter outside the boundaries of the town

ST GILES', NORWICH (THE GREAT HOSPITAL)

Founded by the new Bishop of Norwich, Walter Suffield, in 1249, and supported by the local merchants and clergy, the Hospital of St Giles was not only an expression of the bishop's pious purpose, but also a response to the acute poverty and illness to be found in a rapidly expanding town. Established close to one of the bridges crossing the River Wensum on the outskirts of the town (though within its walls) and dedicated to the patron saint of lepers, cripples and nursing mothers, St Giles' was set up to provide 30 beds or more for the sick or infirm poor, as well as providing food for paupers outside the hospital gates.

As with other institutions, however, financial pressures and fundraising led to other priorities becoming uppermost. Lay and clerical benefactors wanted to perpetuate their memory after death through the saying of masses and the establishment of chantries, or wanted to be buried in the hospital's church. These things required, and funded, additional clergy, new buildings and sometimes rich liturgical equipment. Such priorities were reflected in the new buildings of the late 14th and 15th centuries, including a new chancel for the hospital church in the late 1380s and 1390s.

But caring for the sick had remained the essential activity of St Giles', and at the dissolution of the monasteries the city authorities worked quickly to prevent its sale to a local grandee. The Crown granted the institution back to the city as "God's House", a more austere civic poor house, with part of its great church converted into the parish church of St Helen's. Transferred from the city corporation to a board of trustees in the early 19th century, the hospital survives, a rare medieval institution performing its original function in some, at least, of the original buildings.

"Many inadequately endowed hospitals were already in decline in the later Middle Ages, particularly after the damage wrought on the country's population and wealth by the Black Death"

feature of a campaign initially mounted by the heretical Lollard movement in 1395, and revived in Parliament in 1414 and 1415, but it had small effect. New hospital foundations after 1400 were more likely to be almshouses, with fewer clergy involved, often founded by the local aristocracy and gentry, or by prominent citizens, and managed by local corporations, companies or guilds.

Interest in making more general public provision for the care of the sick grew after 1500. Henry VII's initiative late in life to found a large new hospital for the poor at the Savoy Palace in London was inspired by the great increase in provision for the sick and the poor that had been made in recent years in the cities of Italy and Spain. Religious reformers in the 1520s echoed the Lollards over a century before in proposing the diversion of church property to help the poor and sick. The Protestant Reformation offered an opportunity to do so, though one that was haphazardly taken, and often overtaken by other priorities. Although they were not specifically targeted, many hospital institutions were swept up in the successive monastic dissolutions of the 1530s and 1540s, destroying a large element of formal provision for the poor. In London, the hospitals of St Bartholomew and St Mary of Bethlehem survived, though reformed, and were given to the City; Henry VII's Savoy was dissolved, but much of its property also given to the City to create new establishments for education and the care of the poor, including St Thomas's, Southwark. Elsewhere, some institutions survived or were revived, particularly from the 1550s onwards, as the bishops came to take much closer responsibility to ensure that provision for the poor was properly carried out.

The disruption of the old medieval systems for poor relief, however, led to the construction in the late 16th century of a national system that replaced the expectation of charitable giving by wealthier inhabitants with a civil obligation, supported through local taxation. It was preceded by local schemes in several towns and cities, requiring the payment of rates for the support of the impoverished. From 1552, a series of parliamentary

BELOW LEFT
Early 13th-century stained glass in Trinity Chapel, Canterbury Cathedral that depicts the death of the son of Sir Jordan Fitz-Eisulf from the Plague

BELOW RIGHT
The Savoy Palace seen from the Thames, as it looked in 1736, 200 years after the dissolution. By then, it was serving as a barracks and a prison rather than a hospital

statutes, culminating in the famous Elizabethan Poor Law of 1601, set out a national system reliant on overseers of the poor in each parish. Much of the act was concerned with setting to work those who were able-bodied, but it also ensured that overseers of the poor would provide money to support the impotent as well, including medical expenses, and might arrange for the care of the sick by private practitioners of various kinds.

PRACTISING MEDICINE BEFORE 1800

Medicine, in so far as it was practised in the Middle Ages, was carried out by several professional groups, in theory reasonably clearly distinct. Physicians held the highest status. These were men who were defined by their long university training, albeit a training that was largely theoretical, rather than practical, and consisted mainly of the education that was received by all arts graduates. In this, the English universities of Oxford and Cambridge were also well behind the more sophisticated curriculum provided by the prestigious continental faculties of medicine. Physicians were a tiny group, a handful of men who treated the rich and powerful, and it was a profession dominated by the clergy. It was also protective of its professional expertise. An attempt to introduce a national system of licensing by statute in 1421 had failed, but a

LEFT
"Portrait of a Man", said to be Thomas Linacre (c. 1460–1524), who founded the Royal College of Physicians

BELOW
In a painting by Hans Holbein, 1541, Henry VIII hands over a royal charter to the surgeon Thomas Vicary, commemorating the amalgamation of the guilds of barbers and surgeons

petition from the famous physician Thomas Linacre and others, supported by Henry VIII's Chancellor, Cardinal Wolsey, resulted in the establishment under royal letters patent of a college of physicians, which originally confined medical practice in London to those it licensed; its patent was confirmed in 1523 by Parliament, allowing the college to license practitioners throughout England.

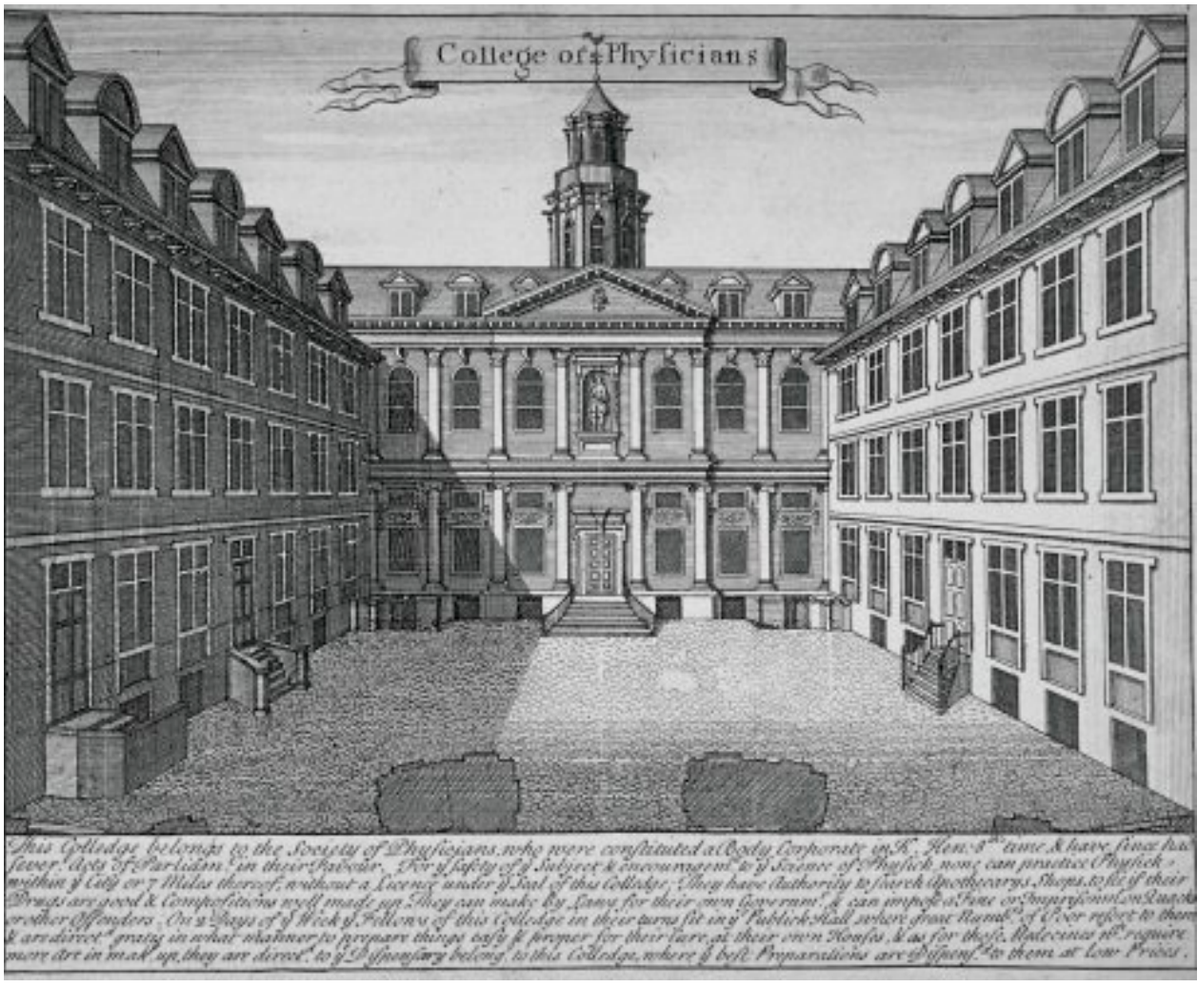
In England, surgery was regarded as a different profession, a more practical expertise requiring apprenticeship to an established practitioner. It was practised mainly by laymen without a university degree, within the structure of town guilds regulated by the municipal authorities. There was little practical difference between surgeons and barbers, another intimate personal service involving sharp implements, and generally they were brought together in the same guilds. However, surgeons regarded themselves as providing a considerably more expert service than barbers, and in London there were two separate, and hostile, organisations, incessantly arguing about who should have the power to license whom, until they were brought together by an Act of Parliament in the Company of Barber-Surgeons in 1540. Like barbers, apothecaries were regarded as a trade, and were thought of by physicians as pure technicians working to their prescription. Some apothecaries aspired to diagnose and prescribe in their own right, and physicians were constantly battling to prevent them. Their formal status was recognised with the foundation of the Society of Apothecaries in London in 1617, though it was under the supervision of the Royal College of Physicians.

Beyond these occupational groups, of course, there were many others who provided less formal medical care in pre-modern Britain. Indeed, physicians, surgeons and apothecaries were in a decided minority when set against the broad sweep of healthcare provision. By the 18th century, there existed what is often described as a "medical marketplace" in which so-called "orthodox" medical practitioners competed for customers with multiple alternative sources of treatment. These could range from self-taught laypeople offering gratuitous advice, through specialists such as bonesetters and pox-doctors, to itinerant purveyors of "cure-all" nostrums. The commercialisation of the British economy across the century provided an increasingly fruitful arena for the profit-driven provision of medical services, and though such individuals were often denounced by more conventionally educated practitioners as "quacks" and "charlatans", the reality is that the boundaries between quackery and medical orthodoxy were notoriously difficult to define, and, in the absence of any regulatory legislation, almost impossible to police, especially outside of the medical metropolises of London and Edinburgh.

During the 18th century, therefore, medical professional authority remained weak, not only with regard to formal regulation, but also in terms of popular perception and market share. Moreover, the continued factional squabbling between the various branches of medicine meant that to call it a "profession" would be to lend it a degree of ideological, structural and political coherence that it did not yet possess. For example, at the very beginning of the century, the Royal College of Physicians launched a legal case against the London apothecary William Rose in an effort to protect its chartered monopoly to practise "physic" by diagnosing ailments and prescribing medicines. Despite their status as tradesmen, apothecaries continued to be far cheaper and vastly more numerous than the tiny pool of university-educated college fellows, and their services were therefore popular. Initially, the physicians were successful in their case, but the ruling was subsequently overturned by the House

TOP
A quack dentist extracts a peasant's tooth in this late 17th-century sketch by Dutch artist Lambert Doomer

ABOVE
The Inspection, part of William Hogarth's "Marriage à la Mode" series (1743-44), showing an aristocrat visiting a French doctor with his young mistress, whom he has apparently infected with syphilis



LEFT
A drawing of the Royal College of Physicians, London, c. 1700. The building was designed by Robert Hooke and built between 1671 and 1679 on Warwick Lane, near St Paul's Cathedral

BELOW
St George's Hospital at Hyde Park Corner, London; an engraving for Henry Chamberlain's *A New and Compleat History and Survey of the Cities of London and Westminster*, 1770

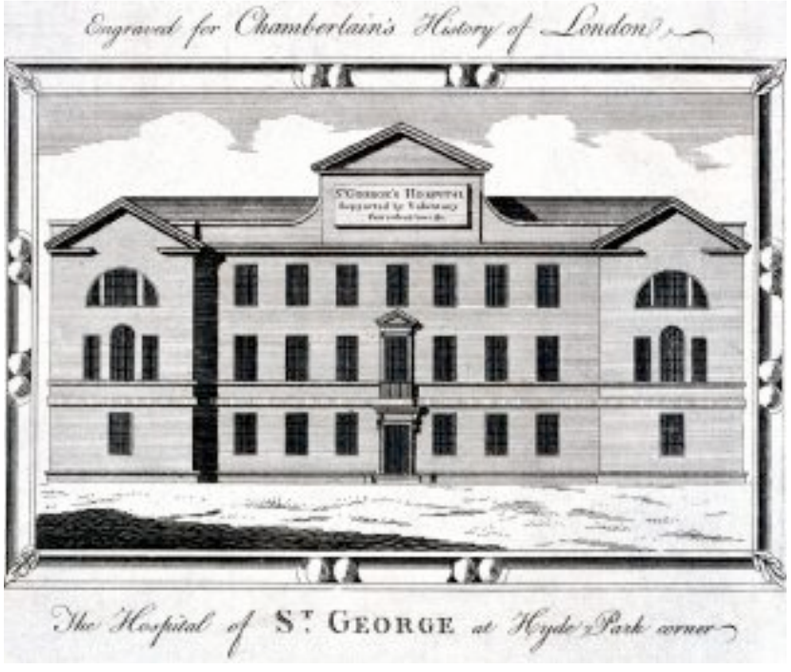
OPPOSITE, TOP
An engraving of the new London Hospital building in Whitechapel, 1752, showing the north front elevation and floor plans

OPPOSITE, BOTTOM
Bethlem Hospital in St George's Fields, London, as rebuilt in 1815. The building now houses the Imperial War Museum

of Lords, undermining the college's authority in the capital. The 18th century would see surgeons, too, asserting their status as skilled practitioners with increasing vigour, firstly by ending their historic association with the Barbers' Company (1722 in Scotland, 1745 in England) and secondly by making ever bolder claims to scientific and practical expertise.

THE 18TH-CENTURY HOSPITAL MOVEMENT

If physicians, surgeons and apothecaries could do little to distinguish themselves in legal or practical terms from their commercial competitors, they were, nonetheless, able to craft an increasingly distinct social and cultural identity. One way in which they could do this was to participate in the burgeoning cultures of medical philanthropy. Before the 18th century, medicine had little concrete institutional presence beyond the handful of former monastic institutions, such as London hospitals St Bartholomew's and St Thomas'. From around the 1720s, however, there was a wave of hospital foundation, beginning in London and Edinburgh, with Westminster (1719), Guy's (1725), the Royal Infirmary of Edinburgh

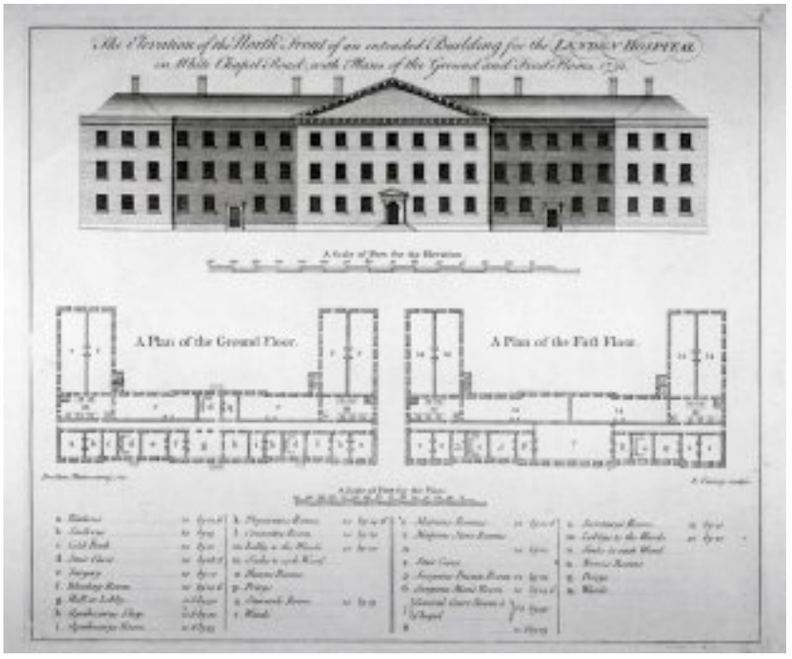


"In the period before the provision of universal healthcare, voluntary hospitals were an important means by which the poor might access skilled medical treatment"

(1729), St George's (1733), the Royal London (1740) and the Middlesex Infirmary (1744) soon spreading to the provinces with such institutions as York County Hospital (1740), Royal Victoria Infirmary in Newcastle upon Tyne (1751), Manchester Royal Infirmary (1752) and Addenbrooke's Hospital in Cambridge (1766). Likewise, prior to the 1750s one of the only specialist asylums catering for the mentally ill was the former monastic hospital of St Mary of Bethlehem (1247), better known as Bethlem. However, the founding of St Luke's in London in 1751 promoted another wave of building, with similar "lunatic asylums" founded in Newcastle upon Tyne (1765), Manchester (1766), York (1772) and Liverpool (1797).

This flowering of medical charity had as much to do with a desire to police the morals of the masses as with a humanitarian imperative to heal the sick. Rather than the medical centres that we think of today, these hospitals were fundamentally civic institutions, part of the 18th-century "urban renaissance", established and run by wealthy local merchants. Even so, for those medical practitioners who were involved in their governance, or who attended to the sick for free within their walls, they functioned as a highly public platform for the performance of a genteel social identity. As the century wore on, they would come to play an increasingly important role in medical and surgical training, especially in London and Edinburgh.

In the period before the provision of universal healthcare, voluntary hospitals, along with dispensaries, which experienced a flowering of their own in the latter decades of the century, were an important means by which the poor might access skilled medical treatment. Except in cases of accidents, when they could be brought in off the street, patients would generally be required to produce a letter of recommendation from one of the governors in order to enter a hospital. Medical charity was thus an extension of the governors' personal largesse, and on recovery or "relief" patients were expected to express their gratitude to God and governor alike. It was, however, through the Poor Laws that the poor most commonly



accessed orthodox medical care, and it was through this mechanism that medicine would, ultimately, come to be routinely harnessed to the operations of the state. Medical care played an important role within the workhouse system, especially towards the end of the century, and many paupers were also able to access relief outside of its walls, including both food and medical treatment.

THE CREATION OF A MODERN MEDICAL PROFESSION

If the efficacy of medicine in this period remained limited, things were beginning to shift. The dominant humoral model, which dated back to antiquity, was giving way to an increasingly anatomical and physiological view of the body and of disease. Despite their historic inferiority, it was surgeons with their training in anatomical dissection, rather than the classically educated physicians, who would take the lead in this. The preeminent figure in Britain was the London-based Scottish surgeon John Hunter, whose research would see him celebrated as the father of "scientific" surgery. But it fell to his former pupil, the surgeon-turned-physician Edward Jenner, to make the most profound social impact, through the development of the smallpox vaccination in the 1790s. By the 18th century, the disease accounted for up to 15 per cent of deaths in some European countries, the majority of them children. In its more acute form, it could have a mortality rate of up to 30 per cent. Jenner's procedure, involving the

ABOVE
An engraving of physician John Hunter (1728–93), by William Sharp, 1788, after an original painting by Sir Joshua Reynolds

LEFT
An etching by Isaac Cruikshank from 1808 that depicts physician Edward Jenner (right) holding an open penknife for "vaccination" with the cowpox virus, as he castigates those who are inoculating using the human smallpox virus

ADDENBROOKE'S HOSPITAL, CAMBRIDGE

John Addenbrooke died in 1719, leaving his money to build and maintain a hospital for the poor. Addenbrooke was a fellow of Catharine Hall (later St Catharine's College), Cambridge, until around 1711 when he left to practise medicine in London. Beset by legal difficulties over Addenbrooke's will and a scandal that led to the complete replacement of the trustees, it was not until 1759 that work started on the new hospital.

Established as a corporation by Act of Parliament in the year it opened, in 1766, it was funded by subscription (including from many local parishes and societies), with the more substantial subscribers acting as its governors. Patients had to bring with them a recommendation from a subscriber, with subscribers limited to the number of patients they could recommend depending on the size of their contribution. Though emergency patients could be admitted without a recommendation, the cost of treating them was a frequent problem.

By the early 19th century, subscriptions and donations were sufficient to enable the hospital to expand, with new wings added in the 1820s. The university was closely involved in the life of the hospital from its inception. Under Sir George Paget (1809–92), Regius Professor of Physic and physician at Addenbrooke's for 45 years, and George Murray Humphry (1820–96), Professor of Anatomy and then of Surgery at Cambridge and surgeon at Addenbrooke's for 52 years, both would become identified as centres of excellence in medical teaching and practice. During their time, the hospital underwent a major reconstruction in 1864–65. As at other institutions, funding was a constant preoccupation, with appeals, events and local collections (including "Hospital Sundays") making up for deficiencies in subscriptions, which would increasingly include friendly societies and other organised groups.

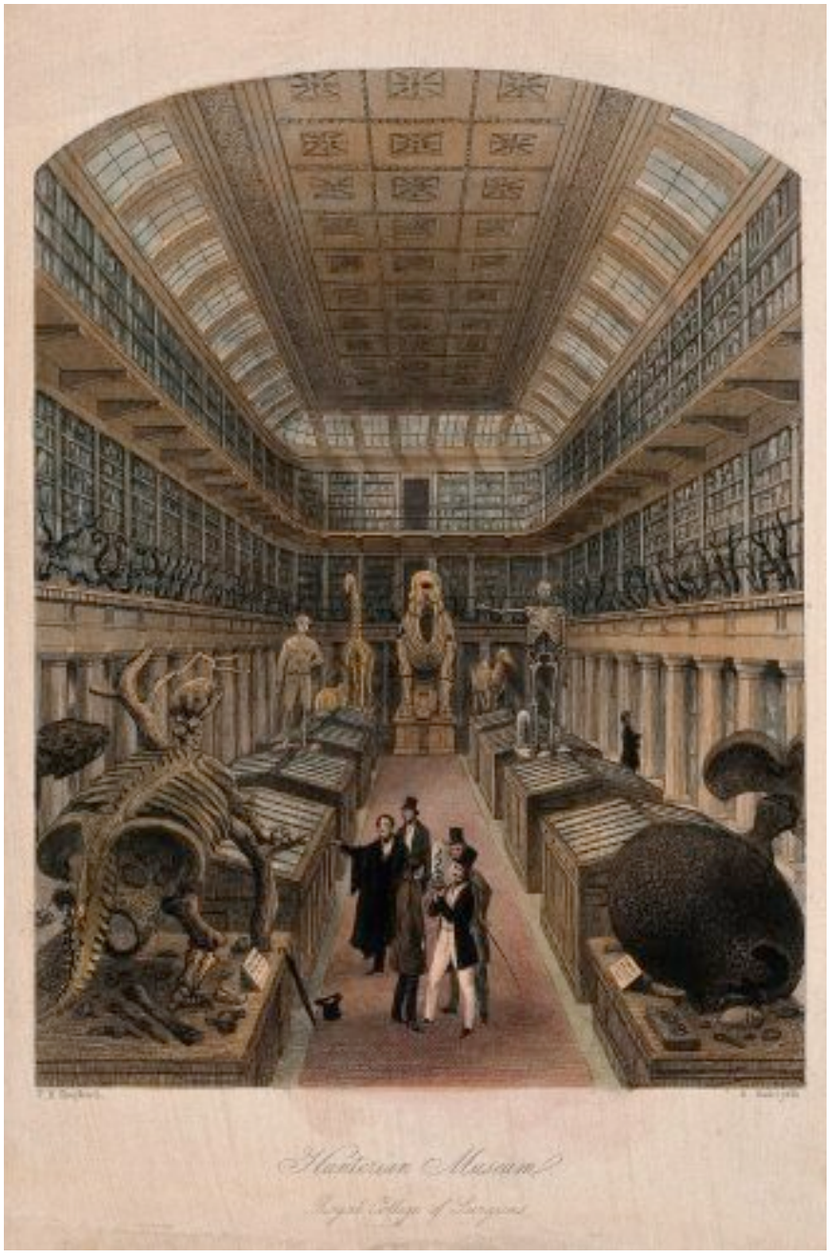
From 1948, designated under the National Health Service Act as a teaching hospital for medical students, Addenbrooke's Board of Governors would be directly accountable to the Ministry of Health. Under the new regime, the hospital would move to a new site and begin its expansion into a major centre for teaching and research.

"Medical reformers sought to assert themselves both against the medical corporate elites and against the forces of quackery and commercialisation"

injection of fluid from a cowpox pustule into a healthy patient, rapidly gained acceptance among governing elites and the medical profession. Not only did it save innumerable lives, but it also helped to transform medicine's relationship with the public and the state.

The foundation of the Royal College of Surgeons of London (later England) in 1800 came at the beginning of what was, in many ways, the century of surgery. Not only was it the "surgical point of view" that initiated the contemporary "clinical revolution", in which disease was understood to be located in bodily tissues rather than in the movement of arcane humoral fluids, but it was also surgery that would eventually bring about some of the most profound changes in therapy and cure. Likewise, while the Royal College of Physicians sought to protect its position at the head of the medical hierarchy, it was from the subordinate but swelling ranks of the surgically trained general practitioners that the impetus would come to transform the medical profession into something resembling its present form.

Medical reform was very much the cousin of its parliamentary equivalent. Just as in the political world, where an increasingly self-conscious commercial and professional middle class sought to challenge the monopolistic authority of the landed elites by extending the franchise, many in the medical world felt unrepresented by contemporary corporate structures: by a Royal College of Physicians that would not admit fellows from any university other than Oxford or Cambridge, by a Royal College of Surgeons dominated by a narrow clique of elite hospital practitioners, or by a Society of Apothecaries that continued to taint the trade. The principal mouthpiece for this disenfranchised class was *The Lancet*, a scurrilous weekly medical journal founded in 1823 by the surgeon-turned-journalist, and subsequently MP for Finsbury, Thomas Wakley. Moreover, without influence in the formal structures of the profession, many of these men, especially those outside London, created their own organisations, ranging from national bodies such as the Provincial Medical and Surgical Association (1832) – later the British Medical



OPPOSITE
The Hunterian anatomy museum in the Royal College of Surgeons, Lincoln's Inn Fields, as seen in an engraving from 1843

ABOVE
The Battle Between the Fellows & Licenciates, an etching of 1768 that satirises the dispute in the Royal College of Physicians between licentiates (depicted as Scotsmen wearing tartan) and fellows, concerning the limitation of fellowship to graduates of Oxford and Cambridge

RIGHT
The Sick Goose and the Council of Health, a satire by George Cruikshank on quack doctors and their patent medicines, published in 1847

Association (1856) – to the various local medical societies established across the country in the 1830s and 1840s.

In this way, a new medical professional identity was forged. As with the contemporary middle class, which placed itself in opposition to both working-class fecklessness and aristocratic incompetence, medical reformers sought to assert themselves both against the medical corporate elites and against the forces of quackery and commercialisation. Anti-quackery was a major focus of early medical reformists' energies as they sought legislative intervention to protect both the public (so they claimed) and their own purses against the depredations of men like James Morison and his "vegetable universal medicine". In this endeavour, they were largely unsuccessful, at least before the latter part of the century; but the fight was nonetheless hugely significant in shaping ideas about medical reform.

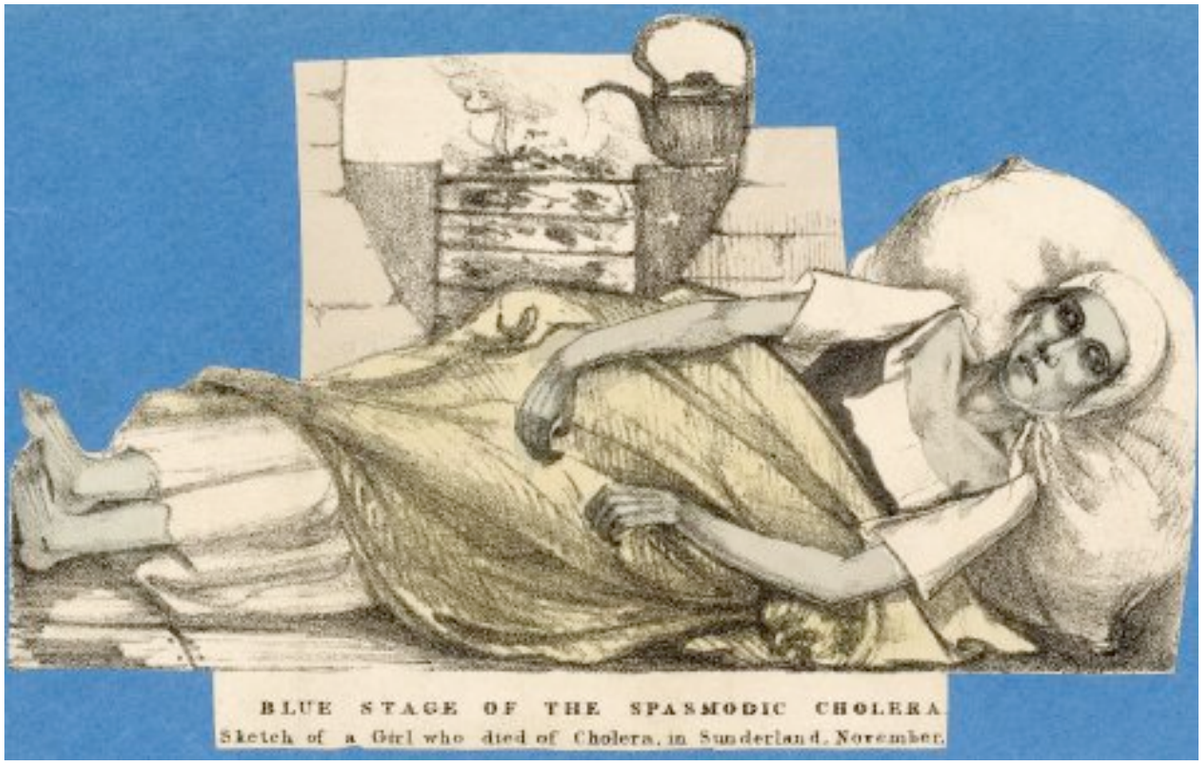
DISEASE, MEDICINE AND THE ROLE OF THE STATE

The epidemic disease that ravaged Britain in the middle decades of the century was important, too, in the emergence of this medical professional ideology. Urban growth and industrialisation had created new and toxic environments in which infectious diseases spread easily and the sicknesses of poverty and malnutrition thrived. Rapid population expansion had overwhelmed the pre-industrial administrative systems that had organised town life. Working conditions had deteriorated, with little regard for the health of labourers. Poor sanitation and contaminated water supply, poverty, malnutrition and domestic overcrowding, as well as coal smog and other environmental pollutants, all exacerbated ill health and the spread of disease. While life expectancy had been slowly increasing since the late 18th century, an "urban penalty" stalled this progress until around 1875.

Cholera first arrived in Britain late in 1831, ravaging the northern industrial town of Sunderland, and would return with renewed vigour in 1848. Typhus was virtually endemic during the mid to late 1840s. Physicians had felt little responsibility to the public during the plague outbreaks of the 17th century and before. In the cholera epidemic of 1832, however, the government, working through a new central Board of Health, had set up a corresponding emergency network of local boards charged with providing information to the centre and organising the isolation of those affected. Many medical practitioners sat on local boards and played an active role in treating the sick and mitigating the spread of disease. This served to initiate an increasingly close relationship between medicine and the state, which was further enhanced by the passage of the Poor Law Amendment Act (1834). Galvanised by economic and utilitarian objections to pauper "dependency" on the old Poor Law of 1601, particularly its provision of "out-relief" for the able-bodied poor, reformers such as Edwin Chadwick "rationalised" the system, harshening its conditions and establishing the workhouse as the sole locus of what meagre "relief" was available. Medical provision was a relative afterthought in the initial legislation, but by allowing each union to appoint salaried District Medical Officers to attend to the sick poor, it nonetheless established an important precedent for the development of state medicine.

Elsewhere, too, medical expertise was receiving legislative support. In the very same year as the cholera epidemic, the Anatomy Act (1832) gave surgeons access to the "unclaimed" bodies of the poor who died in hospitals and workhouses, so that they might improve their anatomical knowledge and operative skills. Such legislation, coming as it did around the same time as the new Poor Law, fuelled working-class distrust of medical practitioners in general, and surgeons in particular. But the latter were nonetheless growing in confidence in this period, the advent of anaesthesia in 1846 constituting a practical innovation so transformative that it was only equalled by the development, from the 1860s onwards, of germ theory and antisepsis. Meanwhile, in 1845, Parliament passed two pieces of legislation obliging each county to establish an asylum for their mentally ill paupers and establishing a Lunacy Commission modelled on that of the Poor Law itself.

ABOVE
Extraordinary Effects of Morrison's Vegetable Pills!, a lithograph satire from 1834, by Charles Jameson Grant, in which the man on the left claims that his legs have grown back after taking the pills



ABOVE
A lithograph from *McLean's Monthly Sheet of Caricatures*, January 1831, illustrating concern about the failure to stop the mail coaches from Sunderland after the outbreak of cholera, while ships leaving its port were barred from other British ports

LEFT
Blue Stage of the Spasmodic Cholera, a sketch of a cholera victim in Sunderland, 1831, published in *The Lancet*

EDWIN CHADWICK (1800–90)

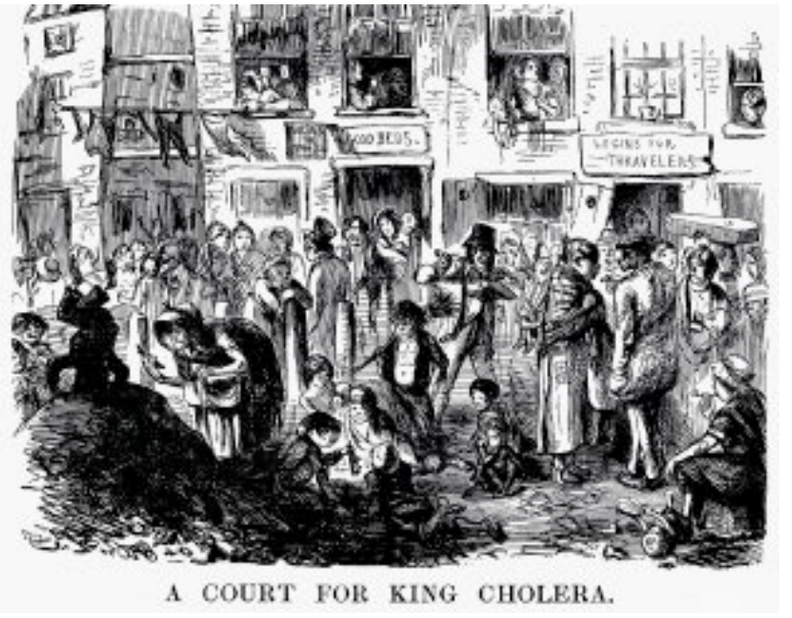
It is ironic that the man who did the most to introduce medicine into the lives of the British poor was not a doctor and that he had little sympathy for medicine, even less for the poor. Chadwick, born in Manchester to a radical journalist, was a former associate of political philosopher Thomas Paine. Moving to London, he was called to the bar in 1823 but never practised law, becoming instead the prototype for a distinctly modern civil servant and the embodiment of Victorian social reform, in all its moral complexity.

He soon came into the orbit of the utilitarian philosopher Jeremy Bentham, imbibing Bentham's instrumentalist approach to social policy, but without his political radicalism or social conscience. A quick-fix approach to intractable social problems marked his career from the start. The most glaring of these problems was poverty, or rather "pauperism" (a state of dependence on poor relief). His reform of the old Poor Laws in 1834 is notorious for its parsimony and inhumanity, thanks, in part, to the criticisms in the novels of Charles Dickens, who would become a supporter of Chadwick's later work on sanitation. The new Poor Law did, in fact, create the post of District Medical Officer, which would be critical to that effort.

By the late 1830s, Chadwick was turning his attention to the role of epidemic disease in promoting poverty. His report on the "Sanitary Condition of the Labouring Population" (1842) provided ample, if specious, evidence for the causal association between disease and pauperism, and led, eventually, to the Public Health Act (1848), which sought to do through sewerage what he had failed to do through the unforgiving political economic logic of the workhouse. Ultimately, Chadwick's overbearing personality would lead to his fall from grace in 1854, and the work of public health would continue without him.

THE REFORM OF PUBLIC HEALTH

However, it was in the field of public health that the association between medicine and the state was perhaps most evident. During the late 1830s and early 1840s, Chadwick's attention had been directed to the role of disease in exacerbating pauperism. Inspired by the understanding of epidemic fever, propounded by men such as the sanitary reformer Thomas Southwood Smith, in which the connections between illness and poverty were drawn, Chadwick and his allies lobbied for government intervention. Chadwick's famous report on the "Sanitary Condition of the Labouring Population" in 1842 made the case for government action on public health. Their eventual success came in the form of the Public Health Act (1848), which set up a General Board of Health in London to oversee policy. It permitted local authorities to establish tax-funded boards of health to build sanitary systems – designed to clean up filthy urban areas – and to appoint local Medical Officers of Health. The success was relatively short-lived, as the General Board attracted controversy and powerful enemies. Chadwick resigned in 1854 and the Board's functions were redistributed to a political body, the Privy Council, in 1858. Nonetheless, its successors would oversee a major programme of sanitary reform and sewer building. Moreover, across the same period, the government moved from making vaccination for smallpox freely



A COURT FOR KING CHOLERA.

ABOVE
A cartoon from *Punch* magazine, September 1852, that suggests the overcrowded, insanitary conditions of the poor were the cause of cholera

BELOW
An engraving from *The Illustrated London News*, 1849, of a meeting in Whitehall of the General Board of Health, including Edwin Chadwick

"The public health efforts of the mid-19th century culminated, at least in terms of policy, in the 1875 Public Health Act, a mechanism for consolidating all previous Acts of Parliament pertaining to public health"

available to the public (1840) to making it compulsory for children (1853). It was against this background that the like of sanitarian Henry Wyldbore Rumsey could, in his *Essays on State Medicine* (1856), imagine a system of national healthcare inconceivable only 20 years before, and not fully realised for almost a century afterwards.

In an era of liberal individualism and laissez-faire economics, such governmental intervention in the health of the public is notable, even remarkable. Legislative protection for the medical profession was, by contrast, somewhat harder to come by. Even so, with the Medical Act of 1858, reformers got at least a portion of what they had sought. While it did not grant them a legal monopoly to practise medicine, it did provide a public register of all qualified practitioners from whose ranks alone state medical posts could be filled. It also established the General Medical Council as the legally sanctioned manifestation of professional self-regulation.

The public health efforts of the mid-19th century culminated, at least in terms of policy, in the Public Health Act (1875), a mechanism for consolidating all previous Acts of Parliament pertaining to public health. Under the act, all legislative provisions for sanitation, nuisance and the curtailment of epidemic disease were brought together. The act established named local authorities as rural and urban sanitary authorities, replacing local boards of health. These authorities were given jurisdiction over the newly created urban and rural sanitary districts, and were now obliged to provide clean water, dispose of sewage and refuse, and regulate the quality and safety of food. The act forbade the building of new homes that were not connected to the main sewerage system. The Local Government Board was also given the power to regulate against the spread of epidemic disease, such as cholera.

PUBLIC HEALTH AND THE PEOPLE

As the century wore on, the association between medicine and the state would only strengthen. Such associations were conceived not merely in relation to the wellbeing of the population, but also to the strategic imperatives of national and imperial defence. Perhaps the most profound,

ABOVE
Josephine Butler (1828–1906), who campaigned against the Contagious Diseases Act; portrait by George Richmond, 1851

OPPOSITE, TOP
An engraving titled *The District Vaccinator – A Sketch at the East End*, by E Buckman, for *The Graphic*, 1871

OPPOSITE, BOTTOM
An illustration from *Punch*, March 1877, depicting an inspector's attempts to establish whether a child has been vaccinated

and notorious, example of this was the series of Contagious Diseases Acts passed between 1864 and 1869. These were intended to reduce the incidence of venereal disease among members of the armed forces, and to improve military efficiency, by allowing suspected sex workers to be forcibly detained, subjected to medical examination and potentially confined to a hospital. Though they received widespread support from the medical profession, the acts provoked outrage among sections of the public and stimulated the beginnings of the feminist movement, thereby proving that whatever legislative acknowledgement the medical professional might receive from the government of the day, the support of the wider public was far more conditional.

That could also be seen in the case of vaccination. As a result of the 1853 smallpox vaccination act, by the 1860s two-thirds of British babies were vaccinated. This landmark piece of legislation was, however, met with strident opposition. It galvanised an emerging anti-vaccination movement that challenged the practice and compulsion of vaccination along various lines, including


March 24, 1877.] PUNCH, OR THE LONDON CHARIVARI. 125

"DIRECT FROM THE COW!"

Local Inspector. "Oh, he has been Vaccinated, you say! Then show me the Marks of his Arm! He has the Marks, I suppose!"

Mother. "Oh, that he has, Sir! Just now——*(drops into a curtsey)*——It was this way, you see, Sir! Farmer Allen's Cow she kissed after the Children, an' bitches my little Boy, and turned him right over the Hedge! But the Marks——"

[*Local Inspector loses his temper.*

GREAT ORMOND STREET HOSPITAL, LONDON

The Hospital for Sick Children was founded on Valentine's Day in 1852, after a long campaign by the British physician Charles West. It was the first hospital in England to provide in-patient care specifically for children and started life as a converted town house on Great Ormond Street, London, with just two doctors and ten beds. Following concerted fundraising efforts and patronage by Queen Victoria and Charles Dickens, by the end of the hospital's first year the number of beds had already trebled.

Like many hospitals in the 19th century, Great Ormond Street was reliant on charitable donations. In 1929, it approached the Scottish writer JM Barrie to sit on a committee to help buy land for its expansion. Barrie declined, but said that he "hoped to find another way to help". Just two months later, he gifted the copyright of his most famous novel and play, *Peter Pan*, to the hospital. Thenceforth, it received royalties from productions of the play and the sale of *Peter Pan* books.

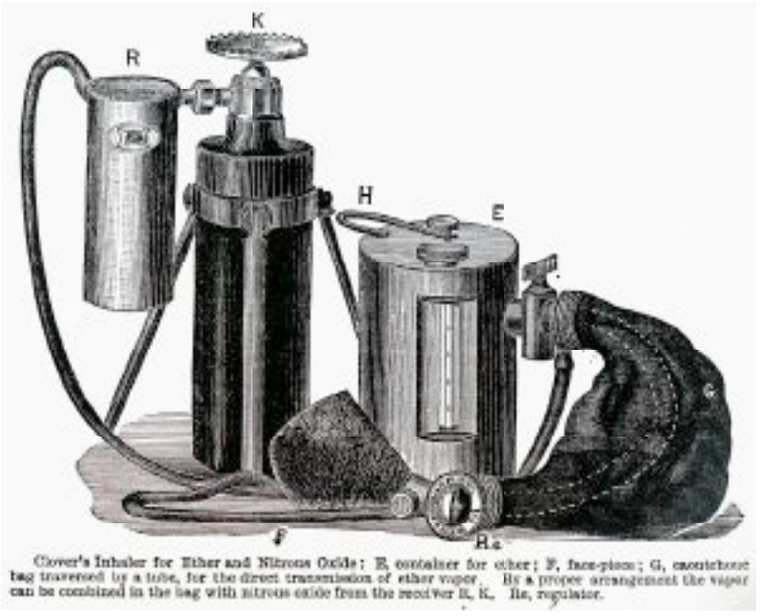
Great Ormond Street Hospital (GOSH) was nationalised in 1948, becoming part of the NHS. Fundraising for NHS hospitals was heavily restricted, but GOSH could continue to receive pre-existing legacies. In 1980, restrictions were lifted, and the hospital embarked on an ambitious fundraising campaign. In 1988, those efforts were aided by the House of Lords vote for a special clause in the Copyright, Designs and Patents Act, giving GOSH the right to *Peter Pan* royalties in perpetuity. Today, the hospital has a global reputation, receiving more than 250,000 patients a year.

religious objections, hostility to the bureaucratic or imperial state, and scepticism about medical science. The movement gathered pace: in 1903, the annual conference of the National Anti-Vaccination League met in Glasgow and passed a motion that condemned employers compelling workers to provide evidence of vaccination as, "unwarranted, tyrannous, and calculated to undermine the independence of the working classes".

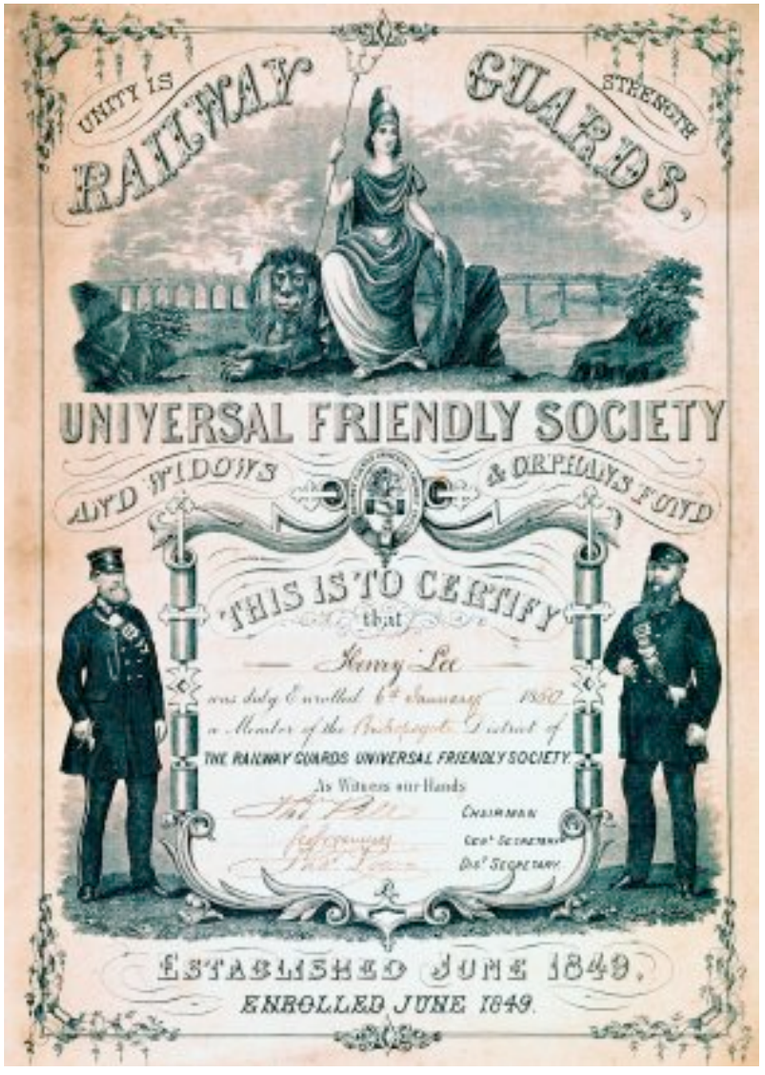
FUNDING HEALTHCARE

Public health was not the only arena in which profound change took place. In the early 19th century, anyone who could afford private healthcare stayed as far away from hospitals as possible because they were associated in the popular psyche with danger, disease and death. Wealthy patients were largely treated in their own homes, by their own private physicians. But for the poor who required medical intervention, these institutions were often their only option. Hospitals were diversely funded and administered. The three endowed hospitals – St Bartholomew's, St Thomas' and Guy's – could subsist on the income from their large investments and landholding, without appealing to the community. The rest were either private institutions or relied on public charity and the generosity of the local gentry.

With more professional practices in medicine and surgery, such hospitals became more numerous, staffed by specialists. Surgery became safer and therefore more common, aided by the slow and contested adoption of antiseptic practices during operations from the 1860s and anaesthesia from the 1840s. Hospitals were becoming frequented by a larger cross-section of society. The healthcare available to the poor in the 19th century had remained partial at best; but organised sickness and life insurance for the working classes was well entrenched by the century's second half. Workers (mostly male) paid monthly subscriptions to friendly societies, most famously the Odd Fellows, Foresters and Rechabites, in return for a sickness benefit while off work and access to the "club doctor" for diagnosis and primary care. Compared to the beginning of the 19th century, by 1900 the health of the British population had become considerably more regulated by the state. But most healthcare was still, one way or another, a matter of provision funded through charitable, voluntary or private contributions. The 20th century would see the state move beyond its basic interest in public health into directly funding medical care.



Clover's Inhaler for Ether and Nitrous Oxide: E, container for ether; F, face-piece; G, caoutchouc bag traversed by a tube, for the direct transmission of ether vapor. By a proper arrangement the vapor can be combined in the bag with nitrous oxide from the receiver K, K. Re, regulator.



TOP RIGHT
An illlustration of an early ether inhaler apparatus, as used in anaesthesia, published in *The Lancet* in 1847

BOTTOM RIGHT
A certificate showing membership of the Railway Guards Universal Friendly Society, dated 1850


G. R.
YOUR KING & COUNTRY
NEED YOU
A CALL TO ARMS
TERMS OF SERVICE
HOW TO JOIN
GOD SAVE THE KING

CHAPTER 2

NEW LIBERALISM AND WAR: HEALTHCARE 1900–40

FOR MUCH OF THE 19TH CENTURY, FURTHER MOVES TOWARDS A STATE THAT INTERVENED EXTENSIVELY IN INDIVIDUALS' LIVES HAD BEEN LIMITED BY THE DOMINANT SMALL-STATE, LAISSEZ-FAIRE APPROACH TO THE ECONOMY AND SOCIETY. THIS APPROACH HAD BEEN ADVANCED BY MANY VICTORIAN LIBERALS, SUCH AS WILLIAM GLADSTONE. BUT BY THE START OF THE 20TH CENTURY, THE POLITICS OF LIBERALISM HAD UNDERTAKEN A SIGNIFICANT SHIFT IN EMPHASIS, WHICH CARRIED A NUMBER OF PROFOUND CONSEQUENCES FOR HEALTH AND WELFARE POLICY.

CONTRIBUTORS

Andrew Seaton

Paul Seaward

Although Liberals continued to champion the rights of the individual, the "New Liberalism" of the Edwardian era abandoned the belief that a small state and a free market alone would be sufficient to safeguard the nation's interests against new challenges both at home and abroad. A new generation of thinkers and politicians, including the political theorist Leonard Hobhouse and future Prime Ministers Henry Campbell-Bannerman (1905–08), Herbert Asquith (1908–16) and David Lloyd George (1916–22) believed that the state should be far more involved in the economy and society.

THE NEW LIBERALISM AND HEALTH POLICY

The change responded to a series of political and intellectual developments. First, the formation of the Labour Party in 1900 and the swelling ranks of the labour movement as a whole required the Liberal Party to adjust to compete with new electoral opponents who advanced plans to uplift the working class through state support.

Second, social reformers in the Edwardian period furnished compelling evidence that revealed the blight of poverty among the population, particularly among the poorest. In 1901, the sociological researcher Benjamin Seebohm Rowntree published a wide-ranging investigation of poverty in York. Through novel techniques in the burgeoning social sciences, such as offering statistics about nutrition levels or food prices, Rowntree showed how inequality blemished people's health and welfare. New Liberals believed that the state provided a means of tackling such problems.

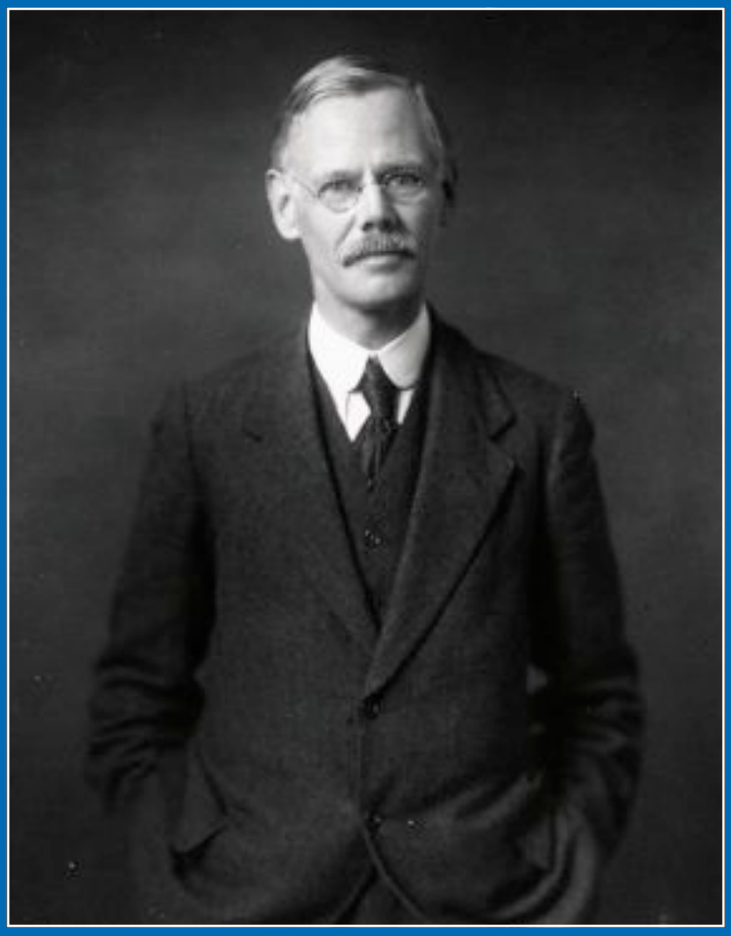
Third, the influence of a "national efficiency" debate during the Edwardian era justified higher government involvement. On the back of the difficulties that Britain faced during the Second Boer War (1899–1902), including high numbers of army recruits turned away due to poor health, commentators argued that the nation was poorly equipped to defend its domestic borders and imperial holdings. The rise of new international competitors – including Germany, the US and Japan – compounded a belief among economists, sociologists, doctors, scientists, journalists and politicians that the health of the nation needed to be improved. Their arguments often became shaped by eugenics, an influential scientific creed supported across the political spectrum, drawing on Darwinism to argue that the human race could be improved by shaping heredity. In his book *Social Evolution* (1894), the New Liberal sociologist Benjamin Kidd, for example, used eugenics to argue for a number of welfare measures to improve the future health and "fitness" of the working class, which would, in turn, keep Britain competitive on the world stage.

REFORM, 1906–11

After the Liberal Party secured a landslide victory in the 1906 general election, it quickly set to work implementing several significant welfare policies that aligned with the changed view of the state's appropriate role. In 1906, the government empowered local councils to provide meals to hungry children through the Education (Provision of Meals) Act (1906). The following year, the medical

PREVIOUS PAGES
Army recruits undergo a medical examination at the recruiting depot in St Marylebone Grammar School, London, in 1914

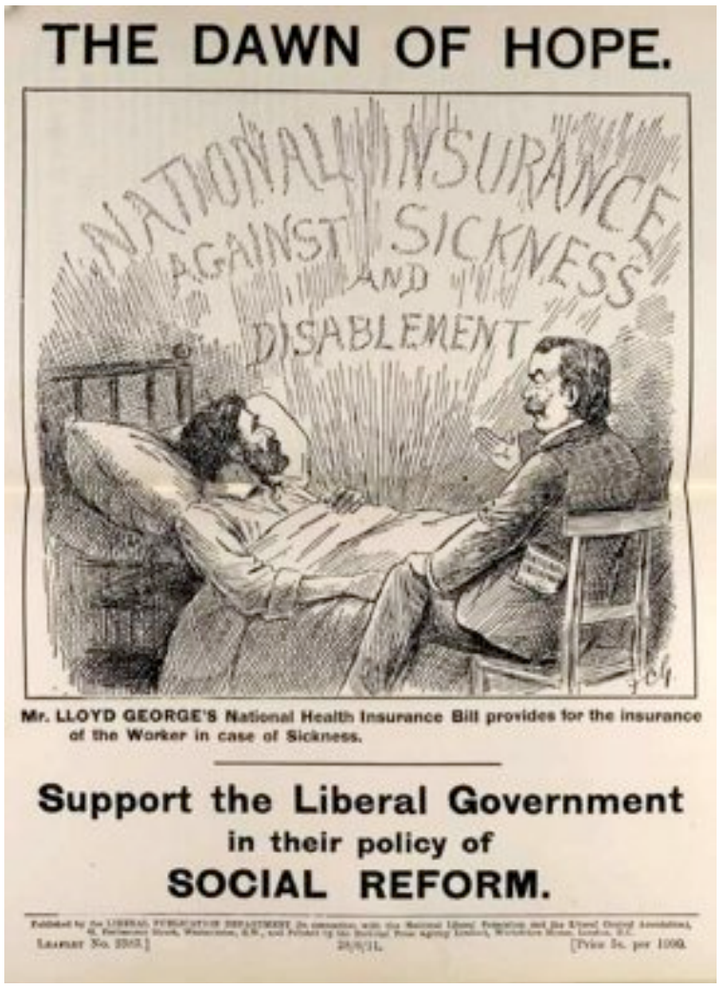
BELOW
David Lloyd George, Chancellor of the Exchequer, in Whitehall with his wife Margaret; Winston Churchill, President of the Board of Trade; and civil servant William Clark, during the debates on the Liberal government's welfare reforms, passed in 1910



BENJAMIN SEEBOHM ROWNTREE (1871–1954)

Rowntree was born into a Quaker family famous both for its cocoa and confectionery business based in York, as well as its commitment to philanthropy and enlightened employment practices. A large proportion of the wealth the company generated was directed into trusts dedicated to charitable and social work. Working at the family firm with his father, as a director and, ultimately, its chairman, Rowntree also devoted his time to a systematic investigation into poverty, publishing a closely researched and highly influential investigation into the poor of York in 1901, titled *Poverty: A Study of Town Life*, which stressed the structural reasons why some people became poor.

Rowntree became a collaborator of David Lloyd George on social policy and, during the war, turned his experience of management and company welfare to the use of the state, serving in the welfare department of the Ministry of Munitions and acting as a negotiator in the post-war industrial disputes. In the 1920s and 1930s, however, as the Liberal Party declined, he and Lloyd George drifted apart, and Rowntree's direct involvement in political discussion and advocacy faded. But his interest in policy and social welfare remained: he was an important source of advice for social economist William Beveridge in constructing the Beveridge Report in 1941–42 and continued to comment on poverty, old age and the life and leisure of the British in a series of books and reports.



inspection of children in schools was introduced. In 1908, the Liberals delivered on long-standing proposals to help the aged through the Old Age Pensions Act (1908). This legislation provided the first state pension at a maximum of five shillings per week (means tested) for people over 70 years old. In order to pay for these extensive welfare policies, in 1909 the Liberals introduced what became known as the "People's Budget", which implemented a higher degree of taxation on the wealthy (including land and death duties, as well as a graduated income tax). The Liberals eventually won a protracted stand-off with the House of Lords, which, dominated by Conservative peers, opposed the 1909 budget. These welfare measures had their limitations and, for their critics, did not go far enough. For instance, the relatively high age requirement of 70 years for pensions meant that many people would not receive it, or if they did, not for a protracted period. All the same, this package of legislation marked the emergence of a welfare state in Britain, even if it was not described in such terms by contemporaries (the phrase "welfare state" only came into popular use in the late 1940s).

National Insurance formed a crucial element of the Liberals' welfare reforms. The National Insurance Act (1911) established a system of nationwide health insurance for all workers aged between 16 and 70 earning less than £160 per year. This insurance would be paid for by weekly contributions from employers and employees, as well as a subsidy from the state. In return, those insured gained a range of benefits including sick pay for up to 26 weeks and access to a list of government-approved general practitioners. Patients receiving treatment through national insurance were colloquially known as "on the panel", and the doctors who treated them received a set amount from the government called a "capitation fee". Men could also claim a small maternity allowance for their wives to cover the cost of an attendant during childbirth. In a commitment to charity and mutualism, national insurance funds were managed at the local level by hundreds of government-approved friendly societies and other bodies. The 1911 act represented the first systematic attempt by the state to subsidise and facilitate access to medical services on a mass scale. After its inception, 14 million workers were able to see a panel doctor. Until the establishment of the

TOP LEFT
A cartoon by Edward Linley Sambourne from *Punch*, August 1908, with Lloyd George as *The Philanthropic Highwayman* raising money for pensions

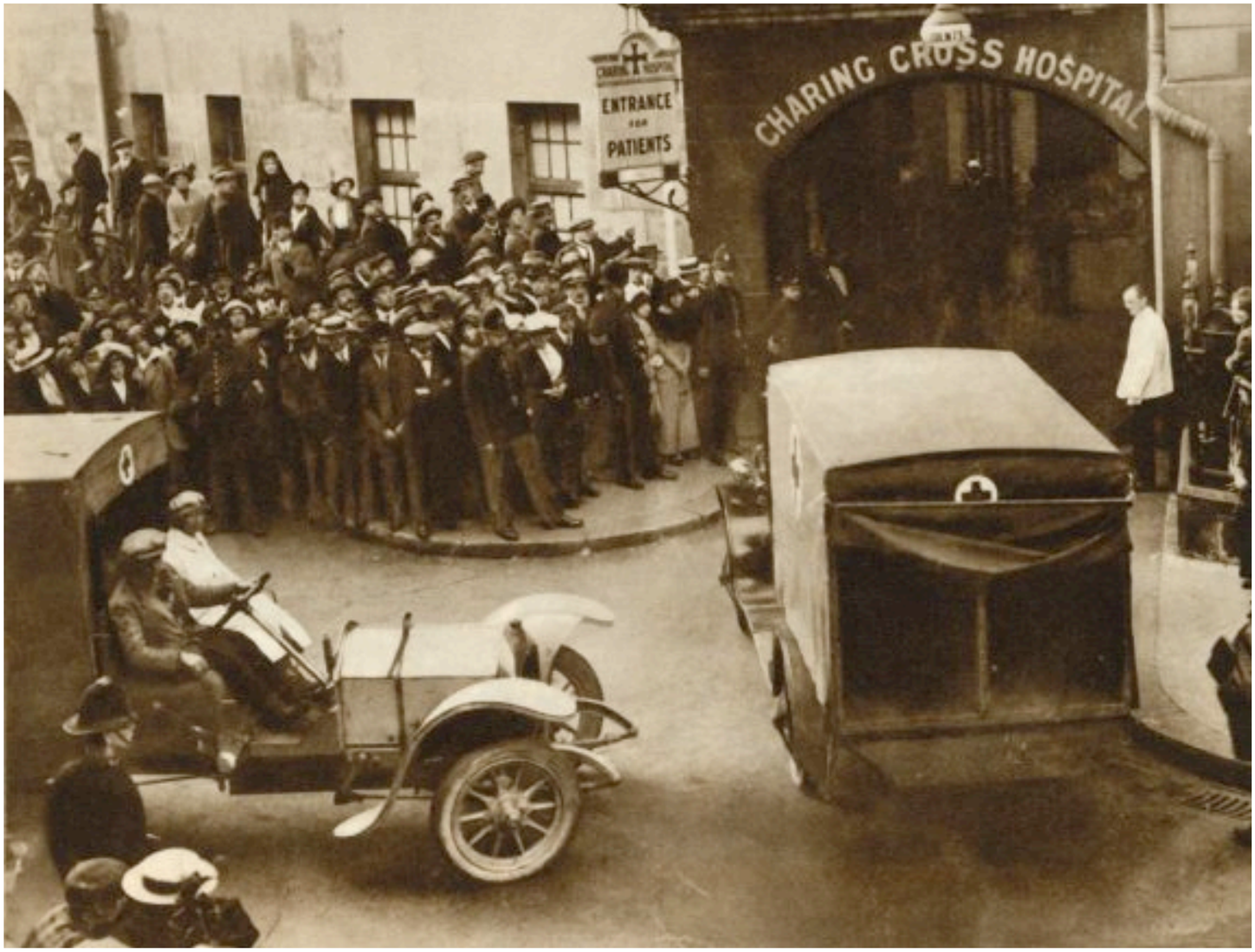
TOP RIGHT
A handbill published by the Liberal Party in June 1911, as the National Insurance bill was under debate in the House of Commons

NHS, National Insurance shaped the way large numbers of Britons gained medical care.

THE FIRST WORLD WAR

The outbreak of war in 1914 opened up further debate about both the role of the state and the general health of the British people. Waging a "total war" required the government to extend its reach into parts of society where its influence had traditionally been curtailed. From regulating the opening hours of shops, to placing restrictions on housing rents, to directing millions of workers, the state flexed its muscles like never before. Such extensive government involvement not only justified the pre-existing trend towards more generous welfare legislation under the Liberals, but also encouraged further demands for even greater intervention as the years passed. Winston Churchill later remarked, with some trepidation, that Britain's eventual victory represented "the greatest argument for state socialism ever produced".

The First World War also carried implications for discussing the condition of the nation's health. As in the Boer War, many army recruits failed medical examinations due to the longer-term impacts of malnutrition or a lack of access to health services. One survey revealed that only one in three wartime recruits would have been fit enough to join the armed forces under normal peacetime conditions. The state responded with new steps to raise standards of nutrition and health. In 1917, the government introduced food subsidies and, in the following year, the rationing of meat, sugar and butter. This support proved a lifeline to many civilians, some of whom enjoyed a higher standard of living as a result. Nonetheless, the earlier concerns about poverty – and particularly the harms that it caused to the health of women and children – lasted throughout the war. In addition, the



BELOW
Ambulances arrive at Charing Cross Hospital, London, with the war wounded in 1914

"The First World War carried implications for discussing the condition of the nation's health … many army recruits failed medical examinations due to the longer-term impacts of malnutrition or a lack of access to health services"

capacities of the nation's hospitals were regularly stressed through caring for the war-wounded. Local doctors, or general practitioners, witnessed the impacts of the conflict on both returning soldiers and civilians at a local level.

At the end of the conflict, Lloyd George declared in soaring terms that his government would guarantee "homes fit for heroes". This gesture to the wellbeing of the working class who had helped deliver Britain's military victory collapsed in the face of economic instability and a subsequent retrenchment in government spending on social programmes. Nonetheless, the Liberals managed to pass some important reforms in this post-war moment before the party fell from office in 1922, supplanted by Labour as the Official Opposition. The Maternity and Child Welfare Act (1918) required local authorities to provide welfare and antenatal clinics, an important stimulus to the development of public health in many communities in the years to come.

ABOVE
The Minister of Health Christopher Addison cuts the ground for the new Ruislip Common housing scheme in London in 1919

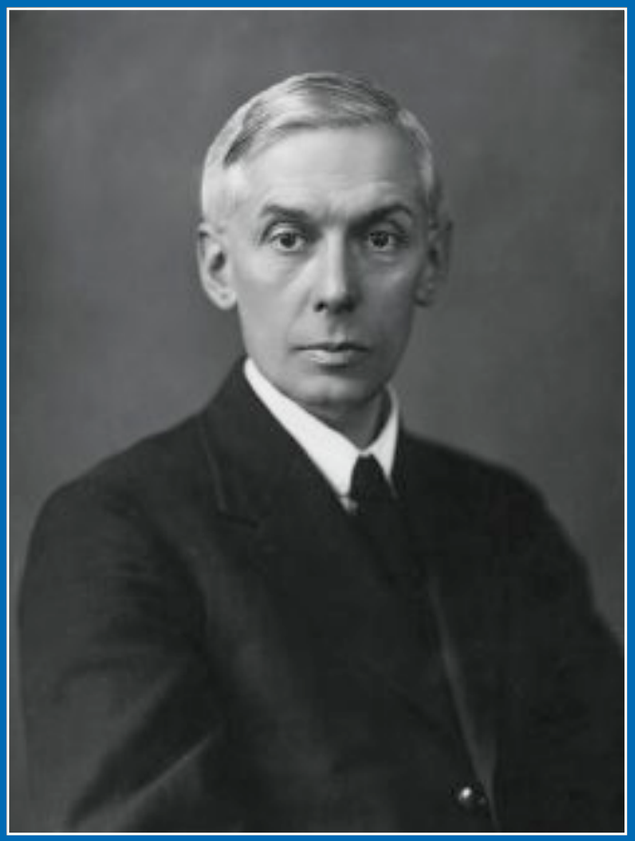
LEFT
Nurses and recuperating soldiers in 1916 outside a house in Norfolk that is serving as a Voluntary Aid Detachment auxiliary hospital during the war

More consequential was the establishment of the Ministry of Health in 1919. Led by the Liberal Christopher Addison, the ministry began with a wide range of responsibilities, spanning the collection and dissemination of medical statistics to house building. Indeed, council house construction took on an important place in understanding public health, with the Ministry of Health overseeing the Housing, Town Planning, &c Act (1919). This legislation empowered the ministry to provide subsidies to councils and private contractors to meet local housing needs. Around 176,000 homes were built under the act, including new towns such as Wythenshawe, outside Manchester. Although the housing programme slowed due to economic challenges, again the state seemed to show what was possible in the fields of health and social welfare, further encouraging reformers who believed it should go even further.

The establishment of the Ministry of Health in 1919 did not lead to a co-ordinated medical system. Britain's general practitioner's surgeries, hospitals and public health clinics

ABOVE
Lloyd George, pictured on the steps of the Reform Club, home to Manchester's Liberal Party, in 1922

LEFT
The Prince of Wales, later King Edward VIII, visits Windsor House, part of a new housing estate in Shoreditch, London, in 1927

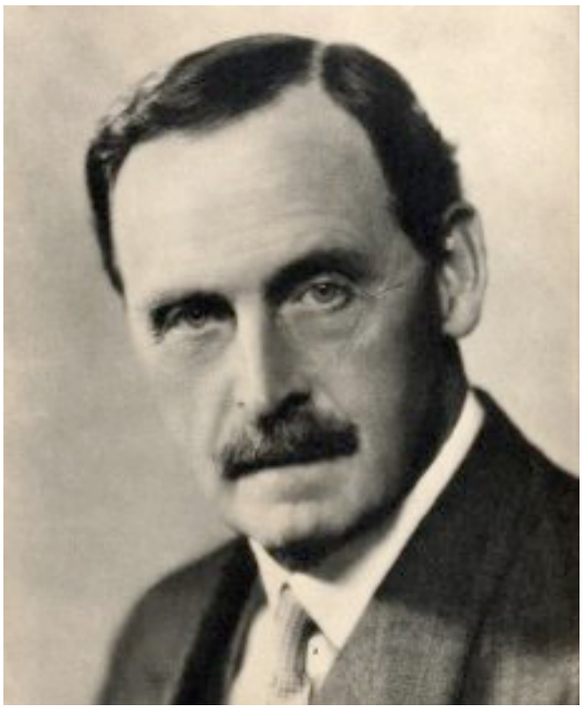


CHRISTOPHER ADDISON (1869–1951)

Addison was the son of a Lincolnshire farmer. A talented medical student, initially at Sheffield, he became a prominent anatomist and physiologist at the Charing Cross Hospital in London. But his concern about the conditions of the poor in London also compelled him into politics as a "New Liberal", and his marriage to the wealthy Christian socialist Isobel Mackinnon Gray made it possible for him to have a political career. Elected for Hoxton in 1910 as a Liberal and supporter of the "People's Budget" of David Lloyd George, he acted as a go-between for the government with the medical profession, helping to secure the latter's acceptance of the 1911 National Insurance scheme.

Closely associated with Lloyd George during the war, Addison was heavily involved in the production of munitions and, ultimately, in the planning for post-war reconstruction. Instrumental in the initiation of the Ministry of Health, he also oversaw, as President of the Local Government Board, the ministry's eventual establishment in 1919 and became its first minister that year. As such, he was responsible for the pledge to build new houses for working people. Despite its success in delivery, the growing costs of the programme dented his reputation, and Addison eventually fell victim to the complex politics of the 1918 coalition. Demoted in 1921, he furiously resigned months later following the abandonment of his housing policy.

Having fallen out with Lloyd George, Addison lost his seat in Parliament. In 1923, he joined the Labour Party, and it was as a Labour candidate that he was returned to the House of Commons in 1929; though when the financial crisis of 1931 forced Prime Minister Ramsay MacDonald to demand drastic cuts in spending and benefits, Addison opposed him and lost his seat again in the Conservative rout that followed in the 1931 election. Still active in Labour policy, he was in 1937 made a peer. A close ally of Clement Attlee he would return to government in 1945 as Secretary of State for Dominion Affairs and as the elder statesman of the Left. Addison died shortly after the general election of 1951, at which Labour lost office.



largely operated independently of one another. This separation caused reformers during the interwar years to call for greater integration between medical services, to bring efficiency and to solve longstanding inconsistencies in the quality and quantity of healthcare across the UK.

The Dawson Report of 1920 proved an important document in this regard, delivering on the research of the Consultative Council on Medical and Allied Services led by the royal physician Bertrand Edward Dawson. It proposed an ambitious reorganisation of Britain's health services so that hospitals became linked in a single system. Another important suggestion lay in its calls for a nationwide network of "primary health centres". These facilities would link up curative and preventative health services by bringing together general practitioners, nurses, dentists and public health officials under one roof. Such a scheme would, Dawson and his colleagues insisted, not only extend a wider range of health services to ordinary people, but also stimulate group practice and multidisciplinary working among medical professionals. For all its grand ambitions, the economic downturn that followed the end of the First World War and criticism in some sections of the press – who saw such aspirations as too expensive – put paid to the Dawson plan. Nevertheless, the establishment of model health centres in locations such as Peckham and Finsbury in London later in the interwar years kept alive the report's ideals among medical reformers.

THE SLUMP AND THE NATION'S HEALTH

Economic turbulence in the 1920s and 1930s posed profound challenges to the nation's health. After 1929, and throughout much of the next decade, the Great Depression – bitterly remembered by many Britons as "the Slump" – caused high levels of unemployment, particularly in heavily industrialised parts of the north of England, Scotland and Wales. At its peak in 1932, 17 per cent of the workforce were out of a job. The closure of dockyards, factories and steel mills carried severe consequences for health in industrialised areas, as poorer families cut back on essentials such as food or heating. As a result of this pressure on family budgets, key health metrics worsened in some important respects. For example, in 1936 industrial Sunderland in the northeast of England had an infant mortality rate of 92 per 1,000 children under one year old, whereas

TOP LEFT
Bertrand Dawson, Lord Dawson of Penn, author of the 1920 Dawson Report

TOP RIGHT
Women exercise in 1935 in the new Pioneer Health Centre, part of the Peckham Experiment social medicine initiative in southeast London

LEFT
Marchers return from London to Bradford in May 1930 after protesting against unemployment and poverty

LEFT
Hospital staff exercise in the Lord Nuffield gymnasium at the newly opened Albert Dock Seamen's Hospital, London, in 1938

BELOW
The cast of the popular musical *Cairo* help to raise money for London hospitals on Empire Day, in May 1922

Bournemouth on the south coast of England had a rate of just 40 per 1,000 children.

The Ministry of Health's insistence that overall standards of health had improved since 1918 carried some merit, particularly in life expectancy, which rose from 57 years in 1919 to 69 by 1949. These improvements followed from rising standards of living, better housing and improved medical interventions that large swathes of the population benefited from. Yet they belied the regional inequalities that existed in areas such as infant mortality and nutrition. The Scottish doctor and nutritionist John Boyd Orr proved a thorn in the government's side, publishing statistics that revealed the harm that inadequate diet caused across the nation. Near the end of the 1930s, he found that undernourishment still afflicted nearly half the population, and fell hardest on women and children.

It would be wrong, though, to suggest that the interwar period marked an unceasingly bleak and stagnant time for healthcare. The later founders of the NHS and the supporters of the nationalised system in the decades that followed propagated such an image in order to justify the high degree of state intervention in the 1940s, but this depiction sometimes obscured more than it revealed about the medical past. Hospitals provided a case in point. During the interwar years, these institutions existed

"The higher numbers of patients partly followed from a changed attitude to hospitals in which they were now seen as places where the latest scientific technologies in medicine could be accessed"

in two forms: voluntary hospitals (funded by charitable fundraising, legacies and patients' payments) and municipal hospitals (municipally funded and often old Poor Law institutions, which, after 1929, local councils were empowered to take over and improve).

These facilities differed widely in quality across the UK. A voluntary hospital, for instance, might be a prestigious teaching hospital in a major city or a cash-strapped cottage hospital in a rural area. The means-testing that patients had to undergo to gain treatment at voluntary hospitals also fostered resentment among the working classes. Similarly, while the London County Council (LCC) may have staked a claim to lead the nation with its improvements to municipal hospitals, other local authorities struggled to free these Victorian institutions from the stigma of the Poor Law. But for all this unevenness, millions of people gained access to hospitals during the interwar years, as never before.

The higher numbers of patients partly followed from a changed attitude to hospitals – especially among the middle classes – in which they were now seen as places where the latest scientific technologies in medicine, such as X-rays, could be accessed, rather than just places where the poor went to die. In addition, novel mutualist insurance mechanisms allowed many people to pay for hospital care during childbirth or treatment after an accident. Hospital contributory schemes – where workers paid 2d or 3d from their weekly wages – facilitated access for the working classes. These forms of mutualism met a significant degree of success in allowing patients to use hospitals when needed; given their extent, the nationalisation of the health service in the 1940s was far from inevitable.

However, one of the most glaring problems with the interwar health system was its lack of support for women, children and the unemployed in accessing family doctoring services. The national insurance system of the interwar years did not provide coverage for "dependants" (as most workers were men, this category usually meant wives and children). The challenges with maternal and child health caused by economic dislocation were

ABOVE
Radiography equipment, including a patient couch, pictured at the London Hospital in 1930

LEFT
Female medical students watch an operation being carried out at London's Royal Free Hospital School of Medicine for Women in 1938

exacerbated by these gaps in provision. Moreover, in the not unlikely event that a worker fell into unemployment, their access to national insurance was limited. Millions of people therefore simply could not rely on the protection offered by the existing welfare state. Their plight fuelled the arguments of reformers striving towards a comprehensive and integrated medical system in the interwar years, who advanced such goals through organisations such as the Socialist Medical Association (SMA) and the Nuffield Provincial Hospitals Trust.

THE IMPACT OF WAR

As fears grew in the late 1930s of a new war with Germany, one of the main concerns voiced by British commentators and politicians centred on the civilian casualties that might be caused by German bombing campaigns. Many agreed with former Prime Minister Stanley Baldwin's remark that "the bomber will always get through". As soon as conflict broke out in September 1939, the government enacted pre-existing preparations for this grim outcome by establishing the Emergency Medical Service (EMS). Through the EMS, the government assumed the right of control over the nation's municipal and voluntary hospitals. The state could now direct medical labour and resources in the hospital field in a way not possible in the past.

Establishing the EMS created a number of problems. In expectation of an estimated 430,000 air raid casualties by the fourth week of the war, hospital administrators cleared their wards of patients. In the event, the number

BELOW
A Child Welfare Centre and Day Nursery taken over by Westminster Council to provide care for children of the poor or sick, shown in 1937

FLORENCE HORSBRUGH (1889–1969)

Florence Horsbrugh, the daughter of an Edinburgh accountant and his wife, was born in 1889. Working in Scotland for the Conservative and Unionist Party as a speaker and organiser, she finally succeeded in obtaining a seat in the House of Commons in 1931, for Dundee. An active backbencher throughout the 1930s, Horsbrugh campaigned on economic issues and housing, but not until shortly before the war did she obtain government office. In 1939, she became Parliamentary Secretary at the Ministry of Health, a junior ministerial post that she held until 1945. As such she was not only concerned with the organisation of the evacuation of children from major cities and closely overseeing medical provision during the war (Horsbrugh said in 1944 that since she had become minister she had been in "the large majority of hospitals"), but was also closely involved in shaping the government's response to the Beveridge Report, speaking at length and in detail in the debates on the White Paper in 1944.

Courting unpopularity with other women MPs for her failure to back their campaign for equal pay and pension age for women, Horsbrugh did not regard herself as a representative of women, but as that of her constituents and of the government. She lost her seat at Dundee in the Labour landslide of 1945 and did not re-enter the house until 1950. In Winston Churchill's 1951 government, she was the first woman to sit in the cabinet (though not until her position, as Minister of Education, was made up to cabinet rank in 1953). She left the government in 1954 and became a life peer in 1959. Horsbrugh died in 1969.

"The shared experience of bombing, rationing and military service stimulated a public appetite for such communitarian forms of welfare"

LEFT
Sandbags are stacked against Westminster Hospital following the declaration of war with Germany in September 1939

BELOW
Nurses photographed in 1940 at the Central Hospital Supply Service, a function within the war organisation of the British Red Cross and Order of St John

of casualties was much lower: around 70,000 civilians died from bombing during the war. In this sense, the redirection of staff and the emptying of patients' beds had proved unnecessary. Nevertheless, the EMS showcased the advantages of what reformers had long been arguing for: an integrated hospital system, with the government assuming overall responsibility for its functions. The wasted resources caused by competing institutions and overlapping hospital catchment areas were minimised through its co-ordinated structure, suggesting what might be possible through state rationalisation in peacetime.

As in the First World War, the higher degree of government involvement in the economy and society between 1939 and 1945 buoyed the arguments made by the proponents of state "planning". With Britain under

ABOVE
A woman registers her family with a grocer for rations of bacon, ham, butter and sugar

RIGHT
How to Keep Well in Wartime, a booklet issued for the Ministry of Health by the Ministry of Information

FAR RIGHT
A classic wartime Ministry of Health poster from 1940

the threat of invasion early in the conflict, food, munitions and industrial production all fell under the government's purview. In air-raid shelters and in the "fields", Britons felt the reach of the state. The Labour Party's decision to join the government in coalition after 1940 provided further impetus for such a hands-on approach to statecraft, with figures such as Ernest Bevin at the Ministry of Labour directing millions of workers in key industries.

The waging of total war raised questions about health and welfare, as in the prior conflict. Food shortages necessitated rationing, and inflation required government subsidies to ensure the consumption of everyday essentials, measures that sometimes proved a boon to those families who had struggled to make ends meet during the economic difficulties of the interwar era. The Ministry of Health, for example, launched a national milk scheme for every child under five and for expectant or nursing mothers. This policy operated universally and without a means test. The shared experience of bombing, rationing and military service stimulated a public appetite for such communitarian forms of welfare, even if the support for such an approach never proved unanimous across all social classes.

After 1942, with victory in the Battle of Britain, the entry of the US to the war and Germany's difficulties on the Russian front, thoughts turned to peace and reconstruction. On the airwaves and in the newspapers, a "reconstruction" debate raged. One question lay at the centre of all this discussion: what should Britain look like once the war ended? A key element of that was its approach to healthcare; and central to it would be the Beveridge Report.

CHAPTER 3

DESIGNING THE NHS

THE SECOND WORLD WAR WAS A CATALYST FOR THE RAPID DEVELOPMENT OF A RADICAL NEW POLICY ON THE PROVISION AND FUNDING OF UNIVERSAL HEALTHCARE FOR THE POPULATION OF BRITAIN. WHILE THIS BUILT ON IDEAS DEVELOPED OVER THE PREVIOUS 40 YEARS, POLICYMAKERS BEGAN TO MAP OUT A SCHEME THAT WOULD TRANSFORM THE EXISTING PATCHWORK OF SERVICES INTO A UNIVERSAL, “CRADLE TO GRAVE”, STATE-FUNDED, UNIFIED SYSTEM. BUT THERE WERE PLENTY OF DEVILS IN THE DETAIL.

CONTRIBUTORS

Edward Devane

Paul Seaward

In May 1940, on the resignation of Conservative Prime Minister Neville Chamberlain, Winston Churchill took his place, leading a coalition government with Conservative, Labour and Liberal ministers. Several ministers with a background in health and local government welfare provision returned to government, including the Conservatives Howard Kingsley Wood and John Anderson. Labour figures joining Churchill included the leader Clement Attlee, the former Health Minister and Deputy Leader Arthur Greenwood, and ex-head of the London County Council Herbert Morrison.

THE IMPACT OF WAR AND THE BEVERIDGE REPORT

As early as July 1941, the coalition government had asked officials within the Ministry of Health to begin preparing for a state medical service after surveying public opinion. In December 1942, it published a report entitled "Social Insurance and Allied Services". Soon known as the "Beveridge Report", it had been commissioned by the Ministry of Reconstruction over a year earlier to survey existing insurance and workplace compensation schemes. The report recommended a compulsory system of national insurance, underpinned by the establishment of a comprehensive health and rehabilitation service. It famously called for a new "cradle to grave" system of welfare capable of defeating the "five giants" of idleness, ignorance, disease, squalor and want. To tackle disease, a health service was proposed to be available to all income groups, without an examination of prior contributions and with no charges at any point.

Its author, William Beveridge, a former London School of Economics Director and specialist in unemployment policy, was interested in the use of a broad range of welfare measures to increase the birth rate and create a more productive workforce and globally competitive economy. He was both conscious of the limits to charitable welfare and sensitive to overbearing state intervention. He argued that health promotion should be a combined effort, with minimum state provision supplemented by individual initiative and voluntary action.

PREVIOUS PAGES
Minister of Health Aneurin “Nye” Bevan reviews posters announcing the launch of the National Health Service, July 1948

LEFT
The Churchill wartime coalition cabinet of 1940-45, in the garden of 10 Downing Street

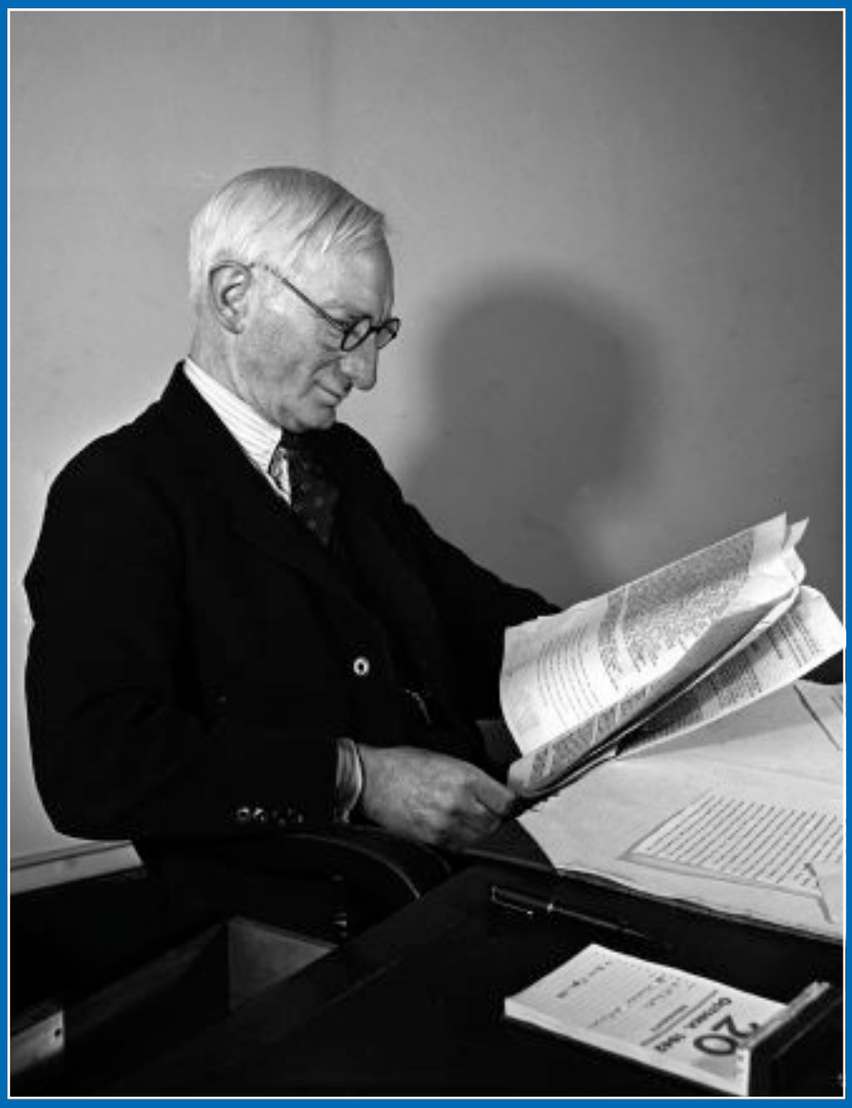
"The radicalism of the Beveridge Report lay in the idea of overall co-ordination and its ambition to tackle deep-seated problems through universal government support"

The purpose of the proposed reforms was summarised accordingly: "The place for direct expenditure and organisation by the state is in maintaining employment of the labour and other productive resources of the country."

As detailed recommendations were outside the scope of the report, health services were presented as a feature rather than the focal point of social security reform. The proposals also included universal family allowances and benefits such as unemployment pay sufficient to meet minimum living standards. These would be paid for, Beveridge insisted, by flat rate contributions. The radicalism of the Beveridge Report lay in the idea of overall co-ordination and its ambition to tackle deep-seated problems through universal government support rather than, as hitherto, support limited by means-testing or exclusions. Gaps in health coverage for women and children under national insurance, for example, would not be possible under the Beveridge proposals.

However, the radicalism of the report fell short in other respects. To some extent, it rationalised existing systems of welfare policy dating back to the Liberals' Edwardian reforms. Beveridge was not a revolutionary, but rather sought to build on measures that were already in place. Moreover, his report reflected patriarchal assumptions about gender roles, with men serving as the main breadwinners and women expected to stay in the home once they had children. Fundamental questions on boundaries between the role of the state and of private provision remained open.

ABOVE
William Beveridge addresses an audience in Central Hall, Westminster, in 1943, at the start of his publicity campaign after publication of his report



WILLIAM HENRY BEVERIDGE (1879–1963)

Beveridge was brought up in an unusual household of pioneering and scholarly reformers: his father, who served in the Indian civil service, was a supporter of Indian home rule; his mother was an advocate of education for Hindu women. A brilliant student, he nevertheless abandoned plans to go into law, opting instead for a life dedicated to social reform, initially in the Oxford settlement in the East End of London, Toynbee Hall, and later through an association with the dominant figures in the Liberal reform movement, Sidney and Beatrice Webb.

Through them, he began to work as an assistant to Winston Churchill, the then Liberal President of the Board of Trade. It launched him into a stratospheric career in the wartime civil service. By 1919, at the age of only 39, he was Permanent Secretary to the Ministry of Food, but shortly afterwards he left to become Director of the London School of Economics, and over the next 18 years converted it – in line with the vision of its founder, Sidney Webb – into an academic and educational powerhouse for the social sciences.

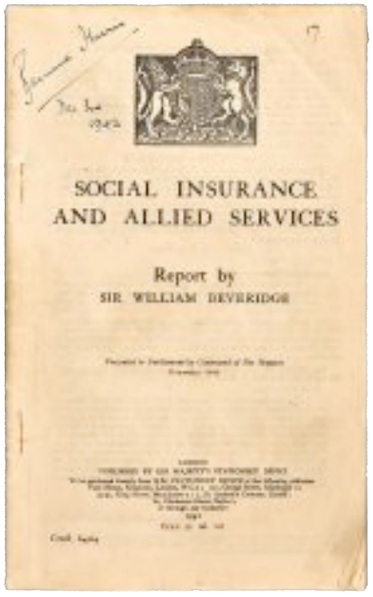
Itching to rejoin government on the outbreak of the Second World War, he was keen to resume the work he had done during the First World War, on manpower and recruitment; but he soon found himself sidelined into what was initially an unimportant committee on social services. In the end, he drew on a huge range of witnesses and experts to prepare two reports – "Social Insurance and Allied Services" in 1942 and "Full Employment in a Free Society" in 1944. The first was an immediate success with the public and made him a nationally famous and identifiable figure. Resigning his current academic appointment at Oxford, in 1944 he secured a seat in Parliament as a Liberal – though he lost it in 1945, and shortly afterwards went to the House of Lords as a Liberal peer, where he remained politically active, while also devoting his time to academic work. He died in Oxford in 1963.

Many were quick to point out that the report's recommendation of a comprehensive health service was not altogether new. In the 1930s, the British Medical Association had called for the creation of a general medical service that would extend National Health Insurance benefits to dependants, with a national structure to oversee prevention and primary care. In 1934, the Labour Party had pledged to establish a comprehensive health service "free for all", which would be based on regional networks of public health centres.

But when the House of Lords debated the report, Lord Dawson, physician to King George V, who decades earlier had himself recommended a national system of healthcare provision to the Ministry of Health, pointed out the major shift in attitudes that had taken place: "The organisation of a comprehensive medical service is no new subject to the medical profession. It has been under consideration for years – since the year 1920 onwards. The demand for it has always been received by governments with deaf ears ... and it was not until the Beveridge Report came out that any idea of a comprehensive medical service was put on the political map."

Appealing to a growing interest in post-war reconstruction, the Beveridge Report had put political impetus behind long-mooted proposals for a comprehensive system of healthcare. The report electrified the reconstruction debates and attracted widespread public attention. It broke government records in selling more than 100,000 copies in its first month, and, after its publication, opinion polls showed that over 90 per cent of Britons were aware of its proposals. As the war neared its end, both the Conservative and Labour parties responded to the report and to a public demand for more generous welfare programmes. The mistakes at the end of the First World War – when promises of "homes for heroes" had quickly proved empty – loomed in many people's minds. Coalition ministers publicly accepted Beveridge's basic recommendations, including the provision of a comprehensive health service. The government used the report's popularity for propaganda purposes, broadcasting details overseas and publishing versions in 22 different languages. German propaganda agencies responded that the report was impracticable for "1,000 reasons" and not least due to "the structure of the British Empire based on a feudal-capitalistic order, which would have to be changed".

Not all in Britain were sympathetic to the coalition government's propaganda. The Member of Parliament for Cambridge University, Kenneth Pickthorn, queried whether the broadcast of Beveridge's findings to armed forces personnel would prove a distraction from combat. Others considered the report already obsolete. At a speech to the Nottingham City Business Club, one director of the Prudential Assurance Company argued welfare reform was unnecessary due to increased take-up of assurance policies during the war. But criticism was outweighed by supportive voices. Seemingly inspired by the report, trade


SOCIAL INSURANCE
AND ALLIED SERVICES

Report by
SIR WILLIAM BEVERIDGE

ABOVE TOP
The Beveridge Report on "Social Insurance and Allied Services", published in 1942

ABOVE BOTTOM
A summary of the Beveridge proposals, published by the Social Security League in 1944

ABOVE RIGHT
A meeting of workers outside a factory in 1943 to discuss the new report

unions, religious groups and political parties held public discussions on the future of social welfare. In Birmingham, the Birmingham Council of Labour passed a resolution calling for the report's proposals to become law before the end of the war, with the union agreeing to circulate 30,000 postcards "for people to bombard their MPs on the matter".

The publication of the report was a highly significant moment in the long-running campaign for comprehensive healthcare in Britain. It, and the ensuing discussion, renewed public pressure for Britain's social reconstruction and, in turn, drove the coalition government to more seriously consider practical steps for reform. Officials in the Ministry of Health would spend the remainder of the war in negotiations with the medical profession over how to bring the idea of comprehensive healthcare into reality.

THE COALITION GOVERNMENT AND THE NATIONAL HEALTH SERVICE

The coalition approached the conclusions of the report warily and with the varying attitudes of its respective parties. Labour identified itself as the party of the Beveridge Report, even if Beveridge was a Liberal, and some Labour members harboured reservations about whether his plan offered a truly socialist programme. However, given the report's popularity, Beveridge's proposals seemed a solid basis for Labour to build on. Reactions were more mixed within Conservative ranks. While the party signalled its agreement to some of the report's proposals, the Prime Minister, Winston Churchill, believed that the government's focus should remain on winning the war, rather than on what might follow. Others

HENRY WILLINK (1894–1973)

Willink, the son of an architect, fought in the First World War in the Royal Field Artillery, winning the Military Cross. A successful career at the bar followed and, in June 1940, he joined the House of Commons, obtaining his seat at a by-election in Croydon North. Appointed Minister of Health in November 1943, he was immediately pushed into the heart of the discussions over the response to the Beveridge Report, producing the White Paper in 1944.

A reticent man, never happy in opposition after the Labour victory in 1945, he left the Commons in 1948, taking the mastership of Magdalene College, Cambridge. He held the position for 20 years, while settling into the role of public servant with involvement in a wide range of committees and commissions. They included the chairmanship of a committee that was instrumental in setting up the Royal College of General Practitioners in 1952 and of a committee on medical manpower in 1957. Most prominent were his chairmanships of commissions on betting and gaming, the position of minorities in Nigeria and on the Royal Commission on the Police. Willink died in 1973.

in the party fretted over the financial costs of implementing the report, or the impact that such a high degree of state intervention entailed.

Responding to the report in Parliament on behalf of the government, Sir John Anderson as Chair of the Reconstruction Problems Committee agreed with the idea of a comprehensive health service that combined voluntary and state provision: "The object is to secure, through a public, organised and regulated service, that every man, woman and child who wants it can obtain, easily and readily, the whole range of medical advice and attention, through the general practitioner, the consultant, the hospital and every related branch of professional up-to-date methods. The fullest possible use must be made of existing resources, including existing public services, such as the tuberculosis, cancer and other services of the local authorities. The idea of the new service must be one of the co-operation of public authorities, voluntary hospitals and other voluntary agencies, and the profession, towards one common end."

Alert to the political risks of shared government, those on the left of the Labour Party were critical of the coalition's failure to give further detail on the proposed structure of the new health service or assign a commencement date. Members of Churchill's war cabinet were sympathetic towards some form of local authority-led scheme, but conscious of the powerful lobby groups likely to resist extensive state co-ordination or restrictions on private practice. By 1943, officials in the Ministry of Health had begun to draft a National Health Service Bill and White Paper to support a detailed debate in Parliament.

Civil servants had closely monitored the attitudes of the medical profession and the voluntary hospitals towards a comprehensive health service. In 1941, the British Medical Association had established a Medical Planning Commission to study the wartime development of the health services. Mostly concerned with the poor distribution of medical professionals, it accepted the need for a degree of central government oversight and ministerial responsibility, but, unlike Beveridge, thought that access to the free service should be limited to those on lower incomes eligible for National Health Insurance and their dependants. The British Hospitals Association represented voluntary interests already experiencing a form of nationalisation under the Emergency Medical Service. Its representatives, from famous teaching hospitals, resisted all forms of local authority control. These competing viewpoints delayed the drafting of the White Paper as the government's Reconstruction Problems Committee argued about the concessions that might be given to each group.

All the same, through its White Paper, as well as other measures such as the establishment of a Ministry of National Insurance in November 1944 and introduction of legislation for family allowances in February 1945, the wartime coalition had fostered interest in what would soon be known as a "welfare state". The National Health Service White Paper was eventually presented to Parliament in March 1944 by Conservative Health Minister Henry Willink.

The government's first detailed statement of its plans, the "Willink Plan" proposed a free and comprehensive National Health Service that was centrally directed and financed, but which retained the division between public and private medicine that had emerged under the mixed economy of healthcare. It did not call for the nationalisation of the nation's hospitals or demand that local authorities submit plans for health centres. Willink summarised several principles for how the new service

LEFT
Minister of Health Henry Willink talks to nurses on a visit to a London hospital in 1944

was to work. They included free choice of doctor; the freedom of members of the medical profession either to participate in the new scheme or to opt out; the planned provision of hospital services by area; and local government involvement through a system of joint boards. As well as making the independence of general practitioners a principle of the service, Willink emphasised that the White Paper guaranteed the future existence of voluntary hospitals: "It is certainly not the wish of the government to destroy or to diminish a system which is so well rooted in the good will of its supporters".

While it was cautiously welcomed as an outline plan, the compromises made in the White Paper truly satisfied none of the interested parties. Labour Members of Parliament felt that its optional health centres and tripartite structure of hospitals, general practitioners and local authority clinics failed to guarantee a unified service. The leaders of the British Medical Association opposed state-owned health centres as a potential gateway to doctors becoming salaried local authority employees. Representative municipal bodies resented the preservation of voluntary hospitals and the proposal to offer them exchequer-funded grants. The Ministry of Health entered negotiations with the medical profession on the basis of the White Paper. But further discussion was soon overtaken by events. With the defeat of Germany in May 1945, Churchill resigned and the coalition government disbanded. A Conservative caretaker administration was appointed until a general election could be held in July 1945.

ABOVE
Clement Attlee celebrates Labour's 1945 election victory, along with his wife Violet, the MP Walter James "Stoker" Edwards and party workers, in Stepney, London

"Attlee appointed a cabinet most of whom had served in the coalition … an exception was Attlee's choice as Health Minister, a relatively young, vocal backbencher – Aneurin Bevan"

THE ELECTION OF 1945

The landslide victory of the Labour Party headed by Clement Attlee came as a shock to political commentators. With 48 per cent of the vote, it gained a 146-seat majority in the House of Commons. Labour's manifesto committed the party to a bold expansion of the British state, including the implementation of large parts of the Beveridge Report. Debates regarding health reform during the election had, however, been muted, probably because senior figures in both the Labour and Conservative parties were well aware of the challenges already encountered by the wartime coalition. Labour's manifesto, "Let Us Face the Future", had presented a consolidated vision of what Professor Richard Titmuss of the London School of Economics later termed the "welfare state", with "health centres where the people may get the best that modern science can offer, more and better hospitals, and proper conditions for our doctors and nurses".

As well as national programmes of hospitals and health centres, Labour promised better maternity and child welfare services, improved access to food and more housing. In the context of austerity, the party guaranteed widely improved social benefits on the condition of full employment and high industrial efficiency. The Conservative manifesto had contained an even longer section on a comprehensive health service, though given the medical profession's reception of the 1944 White Paper, it was notably more prudent in committing to: "preferences and the enterprise of individuals … free choice of doctor" as well as "friendly partnership" between voluntary and local authority hospitals.

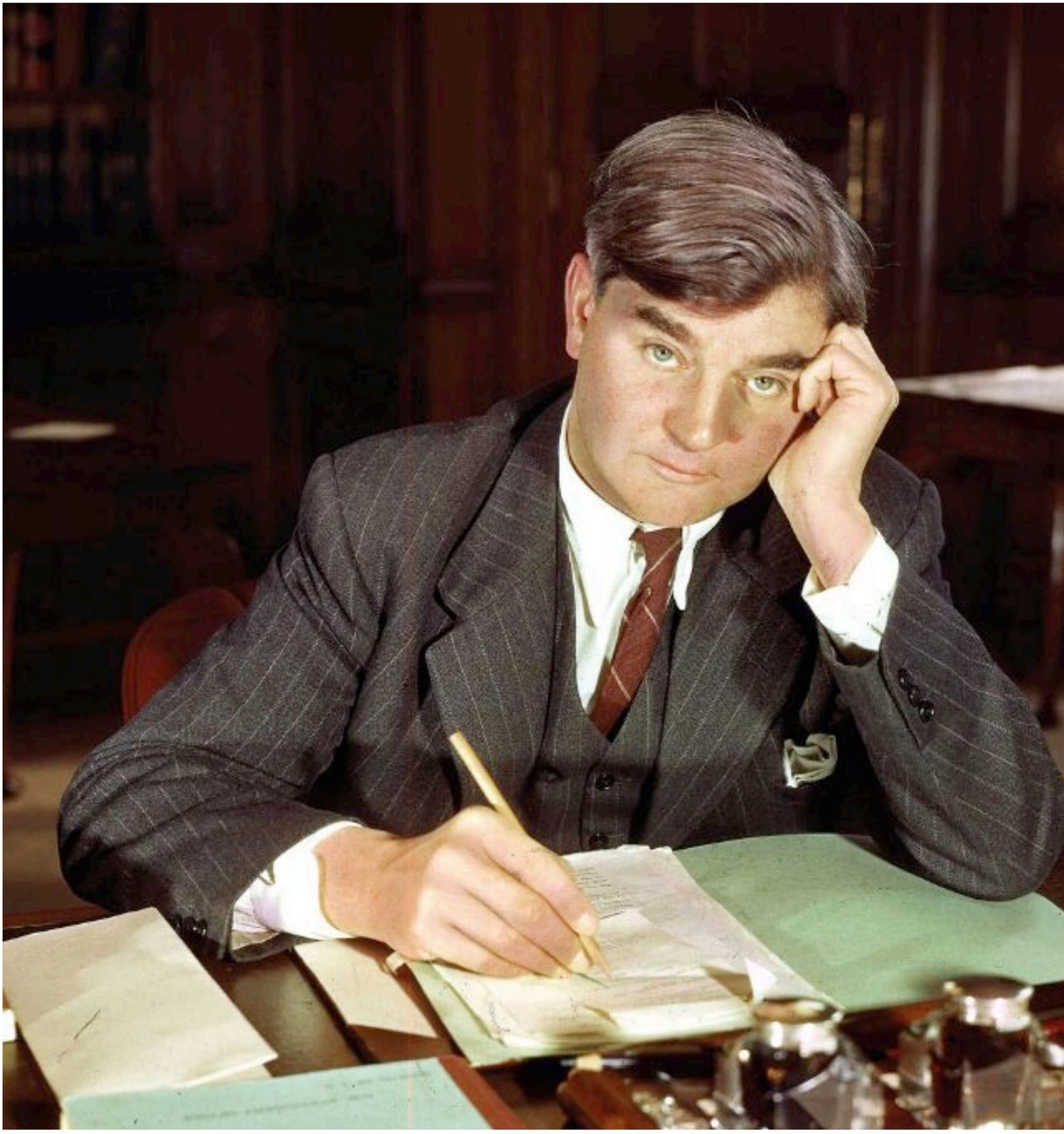
Attlee appointed a cabinet most of whom had served in the coalition, including Herbert Morrison as Lord President of the Council and Hugh Dalton as Chancellor of the Exchequer. An exception was Attlee's choice as Health Minister, a relatively young, vocal backbencher, a former miner from the South Wales Valleys – Aneurin Bevan. He approached his first months with caution. One of his early speeches in September 1945 to the medical profession demonstrates his strategic ambiguity: "They need have no fear – no fear at all … I look upon the general practitioner as the most important man in the medical profession, but I hope – and I trust this will not be regarded as tendentious – that we shall be able to organise a service which will take general practitioners away from the isolation in which at present many of them live and work, and that more group associations will be organised amongst them."

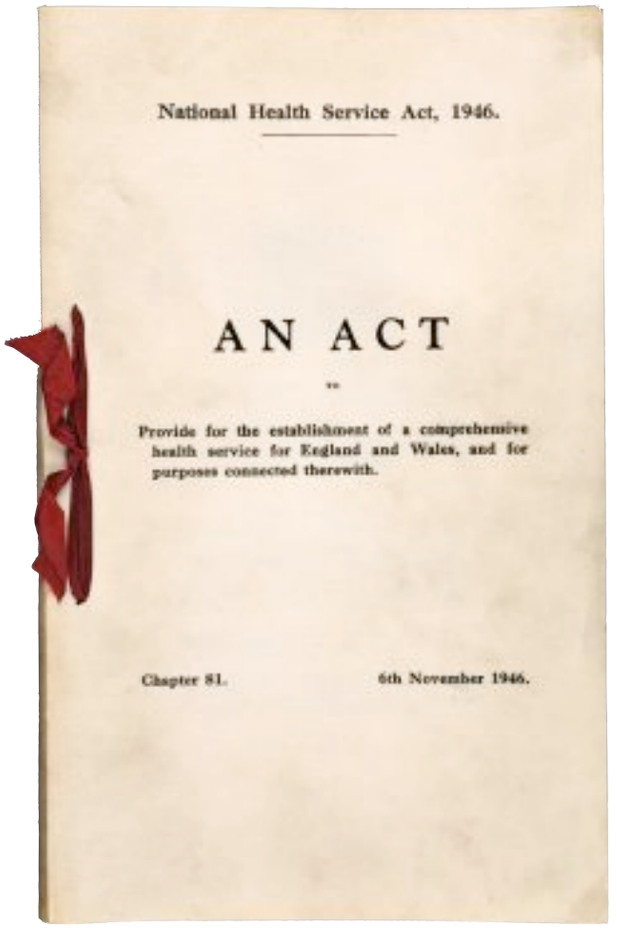
Labour's National Health Service Bill preserved many of the concessions made by the coalition's Health Minister, Henry Willink. Bevan accepted the White Paper's basic structure of hospitals, general practitioners and local authorities, albeit with a renewed commitment to health centres for the latter. To placate specialists, the plans included limited allowances for private practice and generous schemes of part-time remuneration, causing Bevan to famously remark: "I stuffed their mouths with gold." Nevertheless, Labour did make radical changes to the scheme between taking office in May 1945 and the bill's presentation to Parliament in March 1946.

Accepting the segregation of local government and hospital services made it possible for Bevan to nationalise all voluntary and public hospitals, much to the dismay of the British Hospitals Association and cabinet advocates of municipal control, such as Herbert Morrison. Under Labour, further formal consultation with general practitioners was limited. Despite his earlier conciliatory tone, Bevan now chose to associate the bill's reading in the House of Commons with a stand against the sectional concerns of the medical profession and the vested interests of the voluntary hospitals. To the leaders of the British Medical Association, a conflict now seemed inevitable.

THE REACTION TO BEVAN'S BILL

The final version of the bill attempted to strike a balance between ministerial supremacy and local control. It created an administrative hierarchy, allowing the Ministry of Health to delegate authority to centres of medical expertise. Teaching and university hospitals were placed at the top of the pyramid with their own separate tier of administration, known as Boards of Governors. The power of universities and medical schools was further





National Health Service Act, 1946.

AN ACT

Provide for the establishment of a comprehensive health service for England and Wales, and for purposes connected therewith.

Chapter 81. 6th November 1946.

LEFT
Bevan, pictured shortly after his appointment as Labour Minister for Health in 1945

ABOVE
The record copy of the National Health Service Act 1946, preserved in the Parliamentary Archives

demonstrated by their placement as the focal point for Regional Hospital Boards, which controlled the planning and co-ordination for all other hospitals.

Typically spanning several counties, National Health Service Regional Hospital Boards were much larger than local authorities and were to be organised around major cities, such as Birmingham, Leeds and Sheffield. Below the regions, Hospital Management Committees were to be responsible for the daily running of groups of hospitals based around a locality or specialism. Councils, through Local Health Authorities, would retain a responsibility for public health services like maternity and child welfare, with the option to amalgamate provision under health centres. Local Executive Councils would oversee the remainder of services held by independent contractors, including general practitioners, pharmacists and ophthalmologists. While appointments to each tier were theoretically subject to ministerial control, it was explained that, in reality, each authority would be largely self-governing.

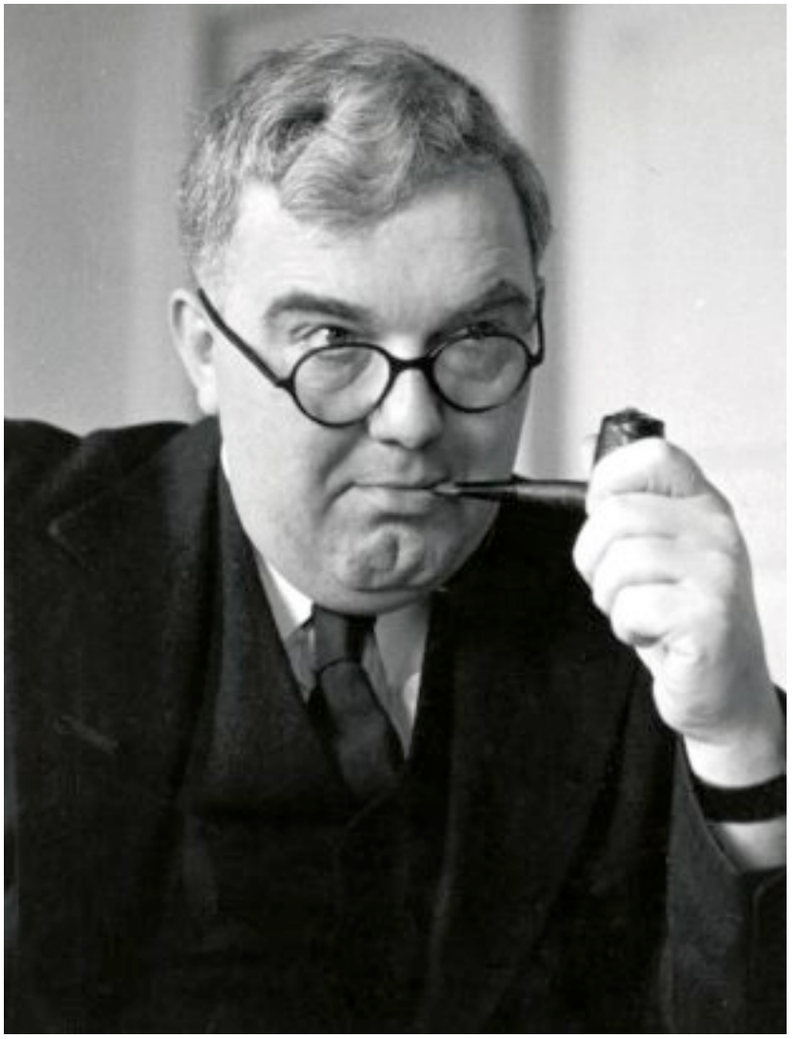
The details of the structure of the National Health Service were noted with limited comment by the national press. With Labour's amendments increasing the role and responsibilities of the state, local papers were attentive

"As soon as the bill was published, the British Medical Association began a vigorous campaign against key sections"

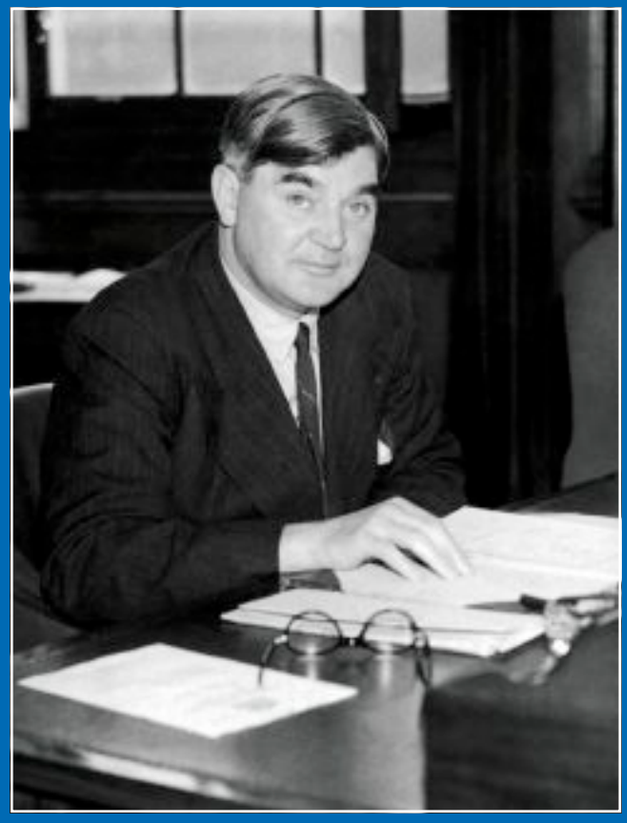
to the "national" element of the service and the need for sustained economic prosperity to support delivery. The *Lancaster Guardian* pointed out that "the health of the nation is to become a national charge. Therefore, the financing of the scheme and its ultimate success demand the work and prosperity of the nation." Voluntary hospitals that had struggled financially before the war welcomed becoming part of a larger regional body. At a public meeting shortly after the publication of the bill, Nuneaton Hospital's Board of Management recognised a trade-off: "It was likely that Nuneaton Hospital would lose some of its freedom by becoming one of a group of hospitals, but it was hoped that the new scheme would provide better services than were possible in smaller isolated units."

Nevertheless, as soon as the bill was published, the British Medical Association began a vigorous campaign against key sections. At a large meeting convened shortly after its terms became public, the association's chairman warned doctors that while "the minister has said that he had no intention of making doctors into civil servants but actually in the bill he has proposed to employ them through an Executive Council which would be responsible to him, and if he could do that and pay them by salary the difference between them and civil servants will be very minute indeed".

Radio personality and Secretary of the British Medical Association, Charles Hill, was quoted in *The Times* and *The Daily Telegraph* demanding a reduction of the minister's powers over general practitioners. Other doctors published articles and took out advertisements making their case against the bill. General practitioners complained that their status would be lowered to that of a state-directed labour-exchange worker or salaried civil servant. In the local press, one Bedford doctor argued such conditions were welcomed only by "the mediocre who find competition unwelcome". Another doctor wrote in a Penrith paper along similar lines that the National Health Service Bill would stifle the prestige of the medical profession, condemning politicians who thought "medicine can be provided by the municipality like the drains". One of the most sensational attacks on Bevan



ABOVE
Dr Charles Hill, Secretary of the BMA, photographed in 1948 for an interview with the *Picture Post*

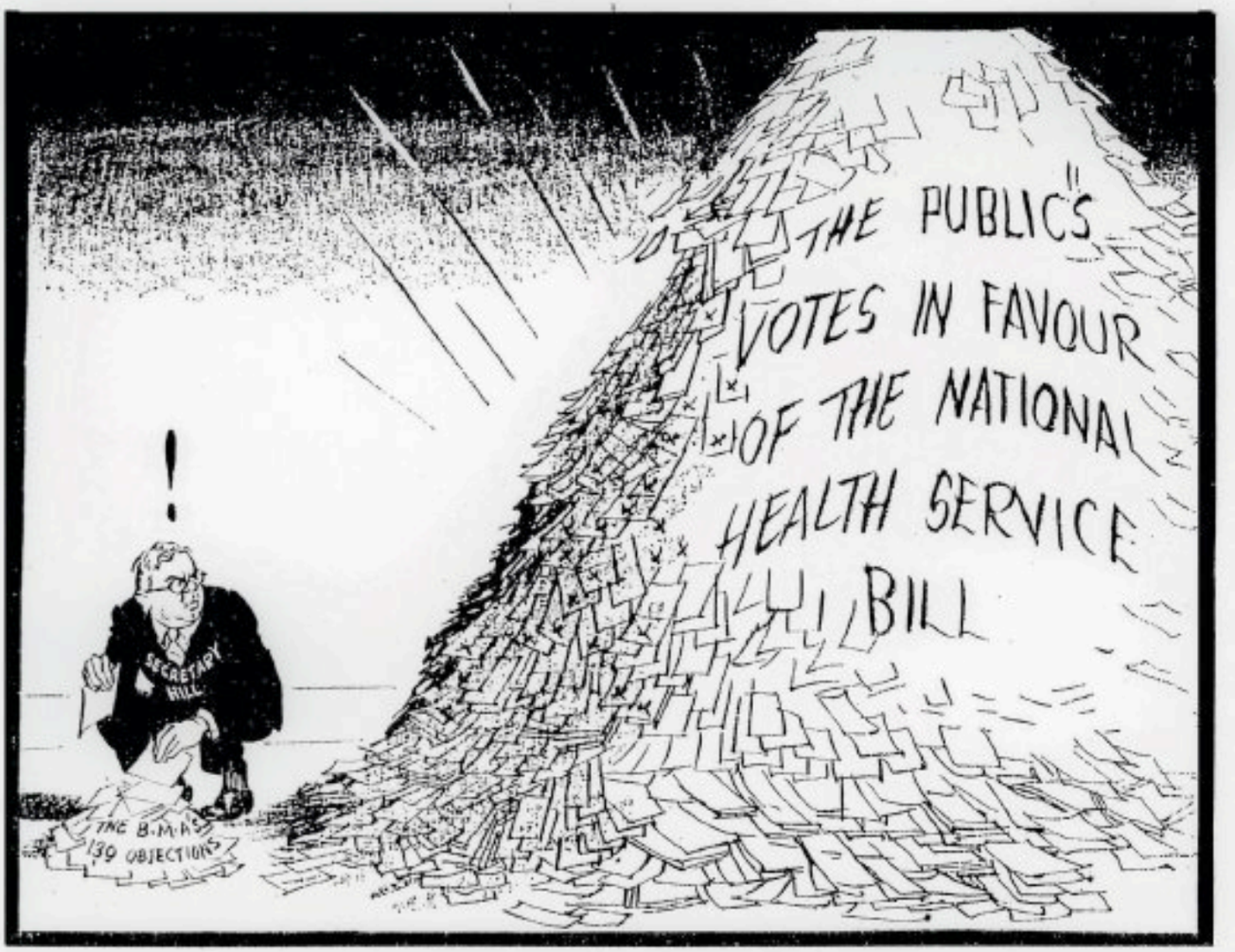


ANEURIN BEVAN (1897–1960)

"Nye" Bevan was brought up in the harsh working and living conditions of the South Wales coalfield, the son of a miner who he initially followed into the local pit. He became politically active in campaigns against the First World War and in the South Wales Miners' Federation. His reputation grew as a union organiser and fiery speaker.

A local councillor for the Labour Party from 1922, in 1929 he won the parliamentary seat of Ebbw Vale for the Labour Party. He soon attracted notice for his swaggeringly confident, passionate, but closely argued, debating style, as well as his enjoyment of the society attention that his celebrity won; for the Labour leader and Prime Minister Ramsay MacDonald, his impatience with the constraints of parliamentary politics made him inconvenient and troublesome. During the 1930s, as the Labour Party tumbled into irrelevance, Bevan formed one of the left's most famous partnerships, with the MP and journalist Jennie Lee, who he married in 1934. He became one of the leaders of the party's unruly left and was briefly expelled from the party. During the Second World War he remained outside the coalition government, a tribune of the people, vigorously nipping at the heels of the coalition for its violations of civil liberties and not sparing criticism of Labour ministers for their participation in its various iniquities.

It was a surprise, then, that on Clement Attlee's landslide success in the 1945 election the new Prime Minister should invite the – often vilified – firebrand to join the government as its Minister of Health. He would become one of its most charismatic and successful figures, both in terms of his work on the NHS and in an unparalleled housebuilding programme, though also, because of his no-holds-barred attacks on the Tory party, one of its most hated on the other side of the house. His dramatic resignation in 1951 (by then as Minister of Labour) was motivated by his hostility to the Labour Party's foreign and defence policies, as well as its attempts to save money on the NHS. On the backbenches, he resumed his campaign to keep the party on the left, until his death, of cancer, in 1960.



Hill meets mountain!

ABOVE
A cartoon titled *Hill Meets Mountain!* depicts the BMA's Dr Hill confronting massive public support for the NHS bill, published in the *Daily Mirror* in 1946

"Outright opponents of state healthcare such as Lord Horder were isolated from the majority of doctors who signed up to join the service on its first intended day of operation"

was quoted in *The Scotsman*: "Denied the right of appeal to a court of law against dismissal from service and salaried from Whitehall – such is to be the lot of the physician of the Socialist future. In brigand-like fashion this would-be Führer points an economic pistol at the doctor's head and blandly exclaims 'Yours is a free choice – to enter the service or not to enter it'."

Whether such arguments resonated with the general public was open to question. Papers sympathetic to the Labour government, such as *Tribune* and the *Daily Mirror*, satirised doctors' complaints, with one cartoon titled "Hill Meets Mountain!" depicting the British Medical Association Secretary with a handful of objections looking up at a pile of public votes in favour of the bill. While the association claimed a majority of its members opposed the immediate introduction of the service, some disaffected doctors took the opportunity to express their frustration with it. One general practitioner wrote in *News Chronicle* of many ex-service doctors questioning the freedoms protected by an association that, it was claimed, censored dissenting members and forced those returning from the war to relocate their previously established practices.

THE BILL IN PARLIAMENT

When the National Health Service Bill was presented to Parliament for its second reading in April 1946, Bevan emphasised that his tripartite structure would rationalise services: "Our hospital organisation has grown up with no plan, with no system; it is unevenly distributed over the country and indeed it is one of the tragedies of the situation, that very often the best hospital facilities are available where they are least needed. In the older industrial districts of Great Britain hospital facilities are inadequate. Many of the hospitals are too small – very much too small ... Although I am not myself a devotee of bigness for bigness' sake, I would rather be kept alive in the efficient if cold altruism of a large hospital than expire in a gush of warm sympathy in a small one."

Conservative and Labour critics attacked the erosion of local government responsibility, querying how Bevan had managed to persuade stalwarts of municipal government such as Herbert Morrison to accept Regional Hospital Boards. The previous Conservative Health Minister, Henry Willink, took issue with the unelected nature of the new administrative bodies and opposed the bill. Willink argued the bill "removes the patient's right to an independent family doctor", "gravely menaces all charitable foundations" and "weakens the responsibility of local authorities". The general practitioner and Liberal MP Henry Morris-Jones complained that consultation with the medical profession had been inadequate; in response, Bevan produced a list of conferences attended as Health Minister and reasserted the supremacy of the House of Commons against vested medical interests. Further debate on the bill concentrated on funding for hospitals and the minister's intentions for moving general practitioners to a state salaried service. But concessions were limited by Labour's large majority, and Conservative attempts to reject the bill were easily defeated.

When it reached the House of Lords in late 1946, responses were more sanguine than they had been in the Commons. Medical peers representing the interests of the voluntary hospitals and the Royal Colleges broadly accepted the state-led restructuring of the hospitals. There was opposition to some aspects of the bill: the royal physician Lord Horder was particularly scathing of Bevan's treatment of general practitioners as dogmatic and dictatorial. Yet under the bill, and with a right to private practice preserved, consultants stood to profit substantially from Bevan's terms. Specialists gained part-time payments for treatments previously given for free under the voluntary system. Although coming under state control, teaching hospitals would retain access to large endowment funds that could be used for research or planning purposes.

The government's compromises within the bill ultimately swayed figures including Lord Moran, President of the Royal College of Physicians, and famous governors like Lord Inman of Charing Cross Hospital. Moran, in particular, acknowledged the new scheme would isolate general practitioners from hospitals, but he felt that co-ordination of the latter presented a more immediate issue that needed to be resolved through legislation. The first

Minister of Health, Lord Addison (previously a Liberal, now a Labour peer), and Beveridge himself, added their political weight behind the bill and helped Bevan to claim he was working in the spirit of earlier Liberal welfare reforms, like the 1911 introduction of National Health Insurance. Many amendments put forward were minor in scope, clarifying matters such as the division of responsibilities between local authorities. The bill was finally passed in Parliament, gaining royal assent in November 1946.

THE NATIONAL HEALTH SERVICE ACT 1946

The British Medical Association's campaign against Bevan only intensified now that the bill had become the National Health Service Act. The case of general practitioners was, however, seriously undermined by bodies representing specialists and consultants. In January 1947, the Royal College of Physicians, the Royal College of Surgeons and the Royal College of Obstetricians and Gynaecologists wrote in support of further discussions on pay and conditions with the government. The association held negotiations with the Ministry of Health throughout 1947, before balloting its members at the beginning of 1948 on whether to support the National Health Service. With months to go before the legislation was due to come into force, Bevan was calling the association's leadership "politically poisoned" and claimed that his willingness to negotiate on remuneration had been deliberately misrepresented. As a final concession to general practitioners, a guarantee was offered that no attempt would be made to create a full-time salaried service. Doctors were to be paid largely on the basis of a per patient capitation fee.

In the interim, support for the British Medical Association's leadership had ebbed away until only a minority of those willing to resist the act remained. Outright opponents of state healthcare such as Lord Horder were isolated from the majority of doctors who signed up to join the service on its first intended day of operation. Doctors like Horder would go on to form splinter groups, including the Fellowship for Freedom in Medicine, which continued to lobby against public healthcare into the 1970s.

The National Health Service Act had struck a deal with the medical profession by playing off competing institutions and interests. Consultants, voluntary hospitals and the Royal Colleges who represented them had been effectively co-opted by the service's proposed regional administrative machinery, which placed specialist concerns at its centre. Dividing the medical profession in this manner allowed the Health Minister to take a firmer stance against general practitioners and limited the number of concessions that needed to be given in Parliament. While proving a politically shrewd manoeuvre in the short term, Bevan's privileging of hospital-based interests was not without a cost – a point that would not become clear until after the inception of the National Health Service on 5 July 1948.

RIGHT
Ballot papers are sorted at the BMA's headquarters in April 1948, for the vote on joining the National Health Service scheme


DISAPPROVE

CHAPTER 4

ESTABLISHING THE NHS, 1948–64

THE NHS WAS WELCOMED ENTHUSIASTICALLY WHEN IT WAS LAUNCHED IN 1948. BUT MINISTERS AND CIVIL SERVANTS VERY QUICKLY BECAME CONCERNED ABOUT THE APPARENTLY INSATIABLE DEMAND AND BALLOONING COST OF THE SERVICE, ESPECIALLY AT A TIME WHEN WARTIME BORROWING AND HEAVY INTERNATIONAL COMMITMENTS LEFT GOVERNMENTS STRUGGLING TO FIND THE MONEY. THEY TURNED FOR SOLUTIONS TO PATIENT CONTRIBUTIONS, THE RATIONALISATION OF HOSPITALS AND WHOLESALE REORGANISATION FOR EFFICIENCY SAVINGS.

CONTRIBUTORS

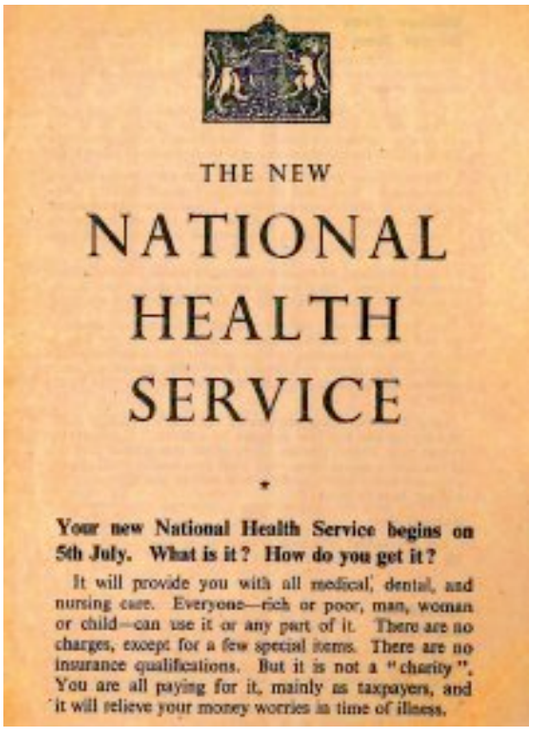
Jennifer Crane
Edward Devane
Peter Mitchell
Stephanie Snow
Angela Whitecross

The National Health Service formally began operation on Monday 5 July 1948, the "Appointed Day" in the 1946 National Health Service Act, or "Foundation Day" as it became known. The principle of a comprehensive healthcare service had been spelt out by Aneurin Bevan in the House of Commons: "It is available to the whole population, and not only is it available to the whole population freely, but it is intended, through the health service, to generalise the best health advice and treatment. It is intended that there shall be no limitation on the kind of assistance given – the general practitioner service, the specialist, the hospitals, eye treatment, spectacles, dental treatment, hearing facilities, all these are to be made available free."

The emphasis on universality and comprehensive healthcare was in radical contrast to what came before. The pre-war mixed economy of healthcare had offered "free" treatment of varied quality, with conditions and exclusions. Visits to a doctor or voluntary hospital were often associated with an indirect charge. The new service promised care without limitation to all sections of the population, regardless of background or occupation or contribution, free at the point of use. While there were some powers to make limited charges, the act actively sought to dissolve many of the historic distinctions that had arisen between public and private medical care. Bevan claimed to "generalise the best" of what had only been available to a privileged few. With a state-operated tripartite system of hospitals, general practitioners and health centres putting an end to fragmentation, and resources funded though general taxation, the new health service was planned to deliver the same standards of service across the nation.

FOUNDATION DAY

Bevan officially launched the new health service at Park Hospital in Davyhulme, near Manchester, on Foundation Day, 5 July 1948. The choice of Park Hospital, later Trafford General, was a careful one. It had been built as a Poor Law hospital in 1929, meaning that it was open to everyone regardless of ability to pay, and a surviving remnant of the workhouse system. This was one part of the inadequate patchwork of healthcare provision that was being welded into the single whole of the National Health Service.


THE NEW

NATIONAL HEALTH SERVICE

Your new National Health Service begins on 5th July. What is it? How do you get it?

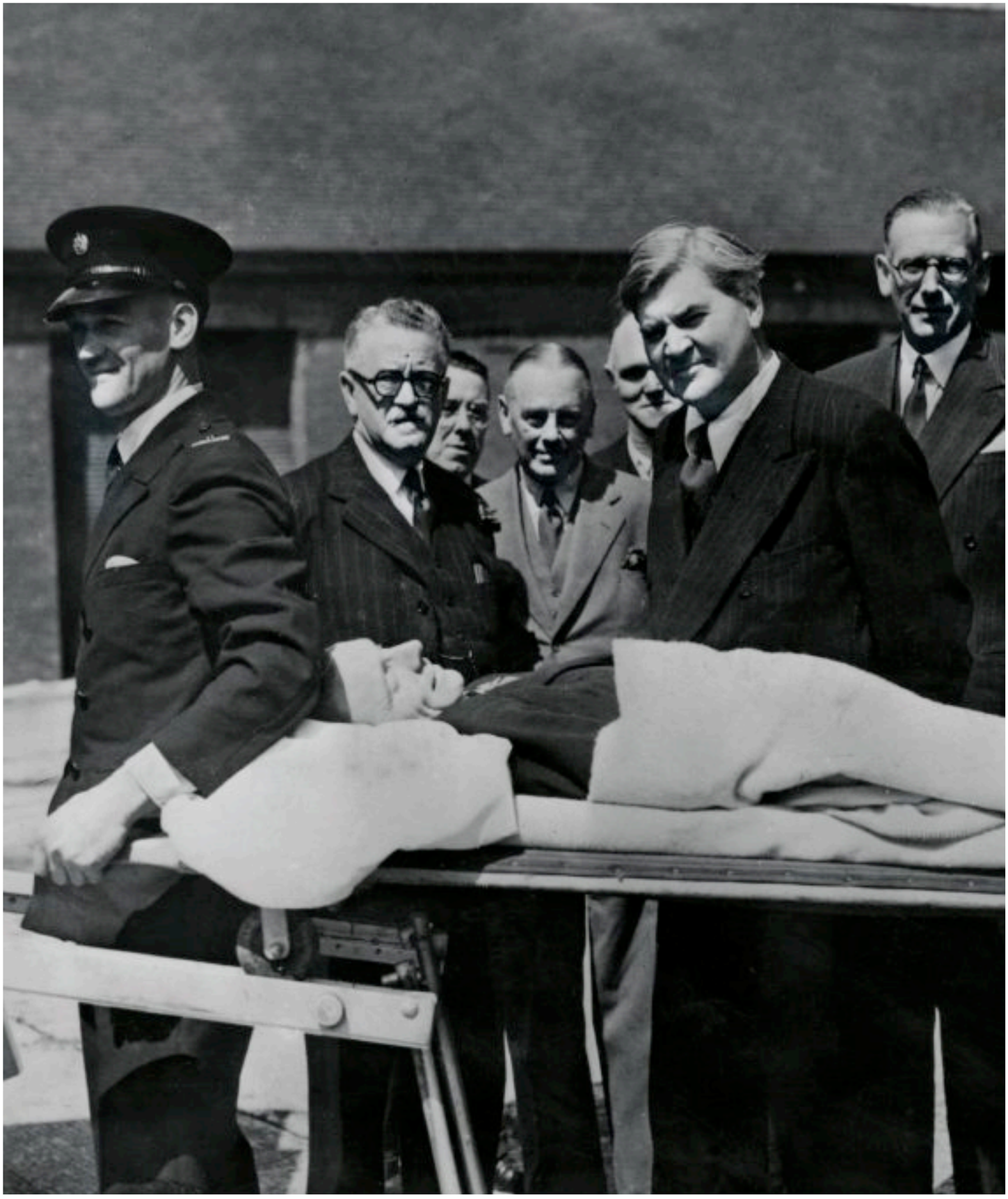
It will provide you with all medical, dental, and nursing care. Everyone—rich or poor, man, woman or child—can use it or any part of it. There are no charges, except for a few special items. There are no insurance qualifications. But it is not a "charity". You are all paying for it, mainly as taxpayers, and it will relieve your money worries in time of illness.

Edmund Hoare, a consultant who worked there from 1976 to 2002, suggested in an interview for the NHS at 70 project – the first oral history of the NHS, consisting of interviews with patients, staff and communities across the UK – that it had been chosen because it "was always a public institution, it was never a voluntary hospital. When the health service came, it was probably the most modern hospital in the Manchester area"; but also "Manchester was obviously industrial, it was Labour, socialist. Rochdale was the foundation of the co-operative movement … The last thing you wanted to do was to open it in London because after all, London was where all the posh people were and where all the posh teaching hospitals were. This

PREVIOUS PAGES
Nurses form a guard of honour for Aneurin Bevan on his visit to Park Hospital (later renamed Trafford General Hospital) in Manchester, on 5 July 1948

ABOVE
A leaflet sent to all homes in Britain in 1948 outlining the new National Health Service

OPPOSITE
Bevan later the same day at a demonstration by ambulance personnel in Preston, where he gave a speech at the county council offices



was a national health service, not a London health service, so it had to be out of London. Park Hospital, because it was all relatively new and shiny, seemed to be just the ticket. It was, if you like, the new broom: this lovely, new hospital which was going to be a National Health Service hospital."

June Rosen, a young girl at the time and the daughter of a Manchester Labour councillor, had the unusual privilege of bringing Bevan breakfast in bed that morning. "My father," she told the NHS at 70, "was a Manchester City councillor and he was very involved with the Labour Party. And we very often had cabinet ministers to stay, because it was wartime or just after the war, and we had a spare bedroom, which was very handy. I don't think they ever brought their ration books, and how my mother managed to feed them, I'm not quite sure. But it meant that we had people coming in and out who were very interesting people. When I was eight, Aneurin Bevan came to stay the night with us because he was going to launch the NHS … I remember my parents talking about it, and how it would be a very momentous occasion. I was told we had somebody important coming to stay. My mother said, 'We're going to take our guest breakfast in bed and you can come with me'. So we took a tray upstairs. I do remember exactly what he looked like, sitting up in bed with his pyjamas and this shock of grey hair."

By the time Bevan was getting up, the National Health Service had already been in operation for several hours. The night before, in a cottage hospital in West Wales, Edna Rees was in labour as midnight approached. Her daughter, Aneira Thomas, told the story to NHS at 70: "It was coming

ABOVE
Aneira Thomas, the first NHS baby, with a bust of Bevan at a service to celebrate the NHS's 70th anniversary, at Llandaff Cathedral, Cardiff, in 2018

up to midnight on Sunday 4 July 1948 and my mother, who had been in labour for 18 hours, was just about ready to give birth to me. She wanted to start pushing. But the doctors and midwives looked up at the clock on the wall and said, 'Stop. Hold on Edna, hold on'. They knew they were moments away from the start of the National Health Service and they wanted me to be the first baby born into the new service. That's how I was born at one minute past midnight. It was the staff there who told my mother, 'You must call her Aneira', the female form of Aneurin, after Aneurin Bevan, the architect of the NHS." Aneira was later to spend 18 years working as an NHS psychiatric nurse.

After breakfast, Bevan went to Park Hospital, where a guard of honour of nurses lined the driveway to welcome him. During the visit, Bevan was ceremonially handed the keys to the hospital, symbolising its handover to the new service. He was given a tour of the building by the matron and taken to "Ward 6" to speak to some of the patients. One of them was the National Health Service's first official patient, Sylvia Diggory, who was in the hospital with acute nephritis, a kidney condition. She later recalled, "Mr Bevan asked me if I understood the significance of the occasion and told me that it was a milestone in history – the most civilised step any country had ever taken. I had earwigged at adults' conversations and I knew this was a great change that was coming about and that most people could hardly believe was happening."

The managed publicity for the visit was cheerful and festive, emphasising the National Health Service's socially transformative ambition of truly universal healthcare. After

ABOVE
Bevan talks to Sylvia Beckingham (later Diggory) at Park Hospital on the first day of the National Health Service

ABOVE
Some of the first babies born under the National Health Service – a popular newspaper feature in July 1948

RIGHT
Surgeons operate in Guy's Hospital, London, in 1949

"It will take time to develop. We shall have to start with what we have, and then work up to a full service when our present shortages have been overtaken"
Clement Attlee

Park Hospital, Bevan was to embark on a nationwide tour of hospitals, meeting patients and healthcare workers, signing autographs and promoting the new system. But for some, the day of its foundation was one of doubt, worry and scepticism. The government did not know what to expect as the new system opened, and the sheer size, complexity and novelty of the service in a nation still reeling from the war, presented problems of its own. General practitioners were still resisting the changes, and would continue to do so for a while, and the service was struggling to cope with the shortages – in buildings, equipment, training, personnel and cash – that pervaded post-war Britain.

An official at the Ministry of Health warned the public that they "must remember that … this is a new adventure in the hands largely of new organisations and bodies. Everything cannot start without a hitch at a given hour. People can help enormously by not rushing the new service." Clement Attlee, the Prime Minister, also sought to manage expectations: "It will take time to develop. We shall have to start with what we have, and then work up

VOICES FROM THE NHS

RUTH EDWARDS

Ruth Edwards was born in 1928 and grew up in a mining family in South East Wales. She secured her first job with Monmouthshire County Council as a trainee laboratory technician in the public health laboratories. There she contracted TB as a result of examining the specimens. Treatment in a sanatorium drew her to the role of hospital almoner, for which she qualified in 1956, working until her early retirement in the mid-1980s. Ruth met Aneurin Bevan during his tour to the region in late 1948, the year the NHS was launched. She told the NHS at 70 project what happened:

"After about two years in the laboratory, the National Health Service was starting, and Aneurin Bevan started a tour of hospitals and other institutions to inaugurate the National Health Service. And one of the hospitals he came to was Llafrecha Grange Hospital, which was then a hospital for the mentally handicapped. He came there – I've forgotten the dates – in late 1948. And my friend and I went there, because the other members of the laboratory didn't want to go and they couldn't all go, of course.

"I don't remember the details of who greeted him, but there weren't many doctors there. There were nurses and other people, clerical administrative staff; and Aneurin Bevan, at one point, was standing on his own. At that time, it was the fashion to collect people's autographs. So I went up to Aneurin Bevan and asked him if we could have his autograph, and he said, 'Certainly'. And at the same time, the official photographer was coming round – sorry, not the official photographer, a photographer from Newport called Happy Snaps. While he was photographing, Aneurin Bevan signed the little ticket from the photographer. And in those days, you took the photograph to the photographers and you could get a print from them, from the negative.

"So that's how we met Aneurin Bevan, and he asked us where we came from – which department. And we told him. Then he went on to speak about the beginning of the National Health Service. So that was my encounter with Aneurin Bevan and how we had our photographs taken with him."

"I went up to Aneurin Bevan and asked him if we could have his autograph, and he said, 'Certainly'"

to a full service when our present shortages have been overtaken ... We shall have to be a bit lenient with the service at first."

Apart from the many doctors – especially general practitioners – who had resisted the creation of the service, some of its most passionate supporters also had doubts as to whether it would work. June Rosen remembers that, even as she joined her family in bringing Bevan his breakfast on the day, some of the challenges and inherent contradictions the service would face were beginning to make themselves felt: "My mother, a doctor's daughter, told him it wouldn't work, much to my father's amazement. He said, 'How can you say that'? She said, 'Well, people are people, and the more they have, the more they will want'. Nobody at that time could possibly have envisaged the sort of developments that we now have. New hearts, new lungs, new hips, new knees, cancer treatments. But of course, she was right, wasn't she? When she was a very old lady, in her nineties, she said, 'You know when I meet your father in the next world, the first thing I'm going to say is, 'I told you so'."

For most, though, the day was one of hope, however qualified – and the fact that it is still commemorated proves that that hope was not entirely misplaced. On 5 July 2018, the NHS's 70th anniversary, the Mayor of Greater Manchester, Andy Burnham, recreated Bevan's tour of Trafford General Hospital. Accompanied by a similar guard of honour of nurses, Burnham visited Ward 6, and unveiled a blue plaque commemorating the place where the NHS officially began.

Rosen recalled, "I think my parents felt the NHS was all part of making the world a better place. I remember my mother saying that after the war was a wonderful time to be in politics. We really felt we were going to build the 'New Jerusalem'. It was a very heady time to be involved to put everything on its feet again... Aneurin Bevan, of course, had seen deprivation in the Welsh Valleys that I don't think people can imagine today. He was so intent on getting the health service set up. And he felt that in time, it would cost less to run, rather than more, because people would have such a different baseline of health."

Aneira Thomas, the NHS's first baby, can tie her entire life to the NHS. Speaking before the 70th anniversary, she said, "I know the NHS well because it's saved my life eight times now... It's amazing to think how hugely things have changed since Bevan's day. But the moral values that were there at the start should stand today as they did in 1948.

VOICES FROM THE NHS

JUNE HEWETT

June Hewett, born in 1931, began training as a nurse at the Royal United Hospital (RUH) in Bath in 1949. She remembered the living conditions for nurses in training, in a new service in a country still experiencing food rationing and a housing shortage. "We were resident in what we called the 'horseboxes' in the main hospital," she told the NHS at 70 project. "These were long corridors with rooms, but the division between the rooms only went up so far, like horseboxes. If you stood on a chair you could look over in the next room. And all the bathrooms and washbasins were at the end of the corridor, you know, very primitive really. But we were only there about three months, and then we moved to the Spa Nurses Home, which was a derequisitioned big hotel.

"The food in the RUH wasn't bad, except on night duty when it was appalling. They used to cook the midnight meal and stick it on the hotplate. And by the time the junior nurses got there, the meat was all curled up and horrible and the veg was... well, horrible. So our main midnight meal used to be a bowl of soup, which we called 'washing-up water'. And we put salt, pepper, vinegar and mustard in it and a couple of slices of bread and that was our evening meal. And then we went back to the ward in the hope that the ward sister had left out – for the patients' use – hot chocolate, Horlicks, a thing called Milo. So we used to fill half a cup with a mixture of all that, just the powder and then add milk to it – and that kept us going."

"The food in the RUH wasn't bad, except on night duty when it was appalling"

I feel passionately about the preservation of this fantastic service, which provides support from the cradle to the grave, for every person in the UK. It means equality for all."

GROWTH IN DEMAND

The new National Health Service's earliest years were dominated by concerns over how it would be paid for. The principle that all could access a range of treatments without limitation was introduced in the post-war context of sustained rationing and austerity. It was not just Treasury ministers who suspected that the nationalisation of healthcare had released a backlog of demand: even the service's most ardent supporters came to suspect that widespread abuse was driving up expenditure. Newspaper cartoons satirised the numbers of people coming forward to claim free prescription glasses and false teeth, with pictures of long queues and overcrowded waiting rooms. After just a year of operation, Bevan was reported as saying, "I shudder to think of the ceaseless cascade of medicine which is pouring down British throats."

Clement Attlee's government agreed that there was a problem; but they would spend their remaining years in office disagreeing about what to do about it. Proposed

ABOVE
The plaque unveiled at Trafford General Hospital in July 2018 on the 70th anniversary of the NHS

LEFT
Patients queue at the outpatients department of St Bartholomew's Hospital, London, in 1954

"Bevan was open to charges for drugs to prevent abuse of the system, but he became increasingly opposed to the prospect of further fees"

solutions included propaganda campaigns urging public restraint, reprioritising budgets and the extension of charges. The debate among cabinet members culminated with the resignation of Bevan in April 1951 and the defeat of the Labour government in the election six months later.

Given the effort that had gone into defining the National Health Service's universal principles ahead of the Appointed Day, the widespread anxieties about public demand and unchecked spending may seem surprising. But they should be seen in the context of the sheer scale of social and economic reform that was being attempted at the same time: bringing healthcare services into public ownership was but one of many nationalisations undertaken during these years. They encompassed one-fifth of Britain's economy, including rail, coal, electricity, road haulage, and later, iron and steel production. In terms of government priorities, health competed not only with industry, but also with other programmes of radical welfare state expansion to which Attlee had committed in the 1945 election manifesto: social security reform, free comprehensive education, childcare regulation, the creation of national parks, the rebuilding of blitzed cities and the construction of whole new towns.

All of this took place against a background of faltering confidence in the economy, with rising prices and a crisis in the convertibility of pound sterling to dollars in late 1947. Debates about how to return Britain to prosperity and establish a new role in the post-war world had a bearing on attitudes towards National Health Service expenditure, too. Britain remained an imperial power with large armed forces, with both Labour and Conservative governments devoting almost twice as much spending as a share of GDP to defence as to health into the 1960s. As well as the creation of a "New Jerusalem" – a prosperous yet egalitarian society – the state pressed ahead with other competing priorities, including rearmament and the pursuit of an independent nuclear deterrent.

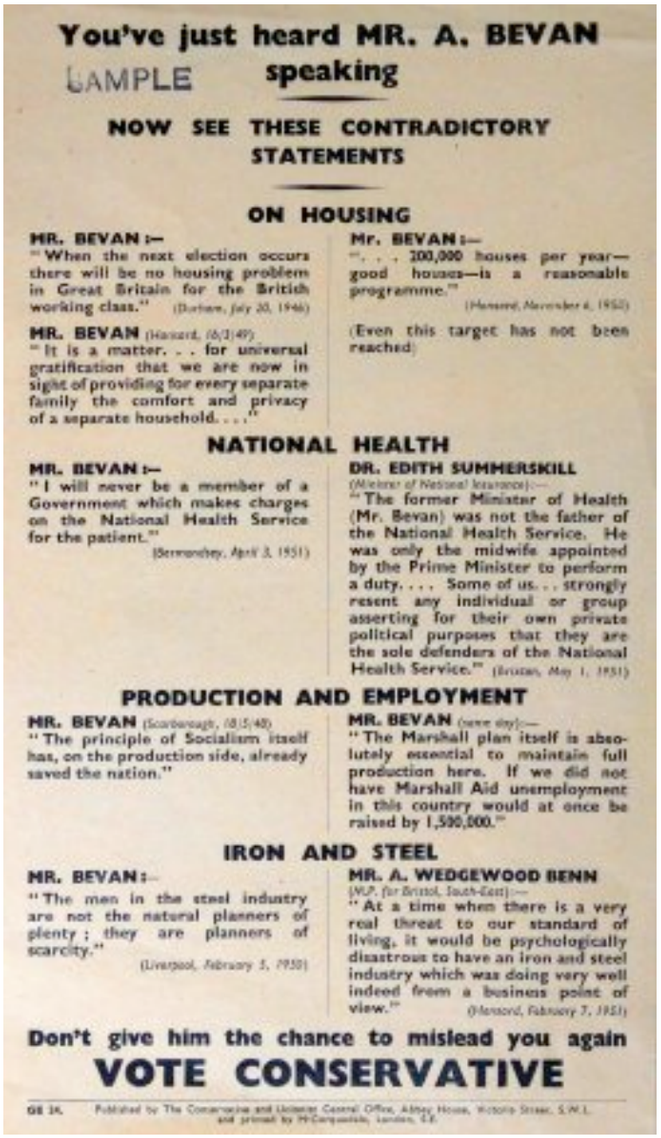
To add to the problem of conflicting investment priorities, it was unclear how much the National Health Service would cost to run. Estimates in the Beveridge Report, the 1944 National Health Service White Paper and the

discussions over the 1946 National Health Service Bill had ranged between £108 million and £134 million a year. The final 1948–49 figure amounted to £272 million. Demand from those unable to afford glasses, false teeth and prescriptions under the pre-war system was thought to be one of the main drivers of over-expenditure. During the first nine months of the service, over a million sets of dentures were distributed. Contrary to Bevan's assumption that costs would naturally plateau as the population's health improved, the demand showed no sign of abating. In the following year, current expenditure exceeded the estimate by more than £150 million. The Treasury began to put pressure on Bevan to implement new controls.

The pressures were particularly acute in the hospitals, already the dominant element in spending. Decisions about National Health Service priorities in the 1940s and 1950s have made many historians talk about a "National Hospital Service". Many hospitals were still far from able to deliver a truly universal and comprehensive service. Regional Hospital Boards responsible for specialist services requested more medical staff to cope with increasing admissions. Between 1948 and 1951, the number of doctors, nurses and ancillary staff working in hospitals increased by 10 per cent to 314,000 in England and Wales. With recruitment increasing and wages making up the bulk of expenditure at a local level, the first set of hospital accounts exceeded estimates by almost a quarter. Regional Hospital Boards also lodged urgent claims with their local MPs and the Ministry of Health for increased capital investment to replace and

OPPOSITE
Bevan on 9 July 1948, with clerks issuing NHS cards at Insurance House, the offices of the London Executive Council of the new National Health Service

ABOVE
Princess Margaret in 1952 at the opening of a new department of the Queen Alexandra Hospital, Portsmouth, with the hospital matron and the Lord Mayor of Portsmouth



repair the neglected and bomb-damaged building stock inherited by the service.

Demands for new buildings were the easiest to resist, and the Ministry of Health made large cuts to capital expenditure at the behest of Chancellor Stafford Cripps before the end of the service's first year of operation. For the next decade, the money available for hospital rebuilding would remain negligible. Ruling out further economies to hospital expenditure for fear of service disruption, Bevan had to consider more drastic cuts to primary and community care.

One notable casualty was the proposed programme of local authority health centres. Eager to preserve their autonomy and right to private practice, the majority of general practitioners had opposed the idea of working from state-controlled premises and, as a result, just a handful of centres had begun construction after the Appointed Day. Labour also amended the National Health Service Act in 1949 to provide for limited fees for medicine, false teeth and glasses. A year later, a new Chancellor, Hugh Gaitskell, picked up a campaign by his predecessor to introduce a fee. Bevan was open to charges for drugs to prevent abuse of the system, but he became increasingly opposed to the prospect of further fees. On 23 April 1951, he resigned. Outlining his reasons in the House of Commons, he linked the charges to the arguments within the Attlee government over defence spending and its inflationary consequences: "It has never been in my mind that my quarrel with my colleagues was based only upon what they have done to the National Health Service. As they know, over and over again I have said that these figures of arms production are fantastically wrong, and that if we try to spend them we shall get less arms for more money."

ABOVE LEFT
A Labour Party poster that dates from the 1950 general election

ABOVE RIGHT
A Conservative party leaflet from the 1951 general election

The perceived imbalance between warfare and welfare moved two other ministers, including the future Prime Minister Harold Wilson, to join Bevan in resigning.

Newspaper reports and social surveys found that members of the public were generally more relaxed about the introduction of fees, influenced by the spiralling costs and a belief in widespread abuse. In the general election of October 1951, held before any National Health Service charges were actually implemented, the divisions within Labour assisted Winston Churchill's Conservatives to return to power. A one shilling prescription charge was finally introduced in 1952. It was met with mixed reactions. One anonymous general practitioner in West Lothian, Scotland, was quoted by a local paper as considering "the shilling charge will make those who use the service on every trifling occasion think twice", while another, Dr WN Leak, attempted to pass a motion against prescription fees at the British Medical Association's annual conference, calling it "a retrograde step that the profession should oppose with all the means in its power".

For a time, opponents of charges had been able to resist their implementation by arguing that the administrative machinery required would be too unwieldy and politically divisive to be worthwhile. The Attlee government had estimated that prescription charges would generate savings equivalent to less than one per cent of total expenditure on the National Health Service. These claims seem to have been borne out. The Churchill government planned to introduce a range of fees, including a "hotel" charge for hospital stays; but, due in part to resistance from Conservative backbenchers and professional lobby groups, Churchill went no further than the measures already laid out by Labour.

Charges and prescription fees have remained a feature of the service in England ever since, only being temporarily abolished for a period of three years between 1965 and 1968. From one shilling, the prescription fee has risen above inflation to £9.65 in 2023 and contributes roughly the same amount of money now (around 0.4 per cent) to National Health Service funds, as it did in 1952. The devolved governments in Northern Ireland, Wales and Scotland, however, gradually abolished these same charges between 2007 and 2011. Charges for visits to general practitioners and hotel fees for hospital stays continue to be suggested by former health ministers and

VOICES FROM THE NHS

MARY MARTIN

Mary Martin, born in Northern Ireland in 1927, began her career in nursing when the NHS was only two years old. "I came to work for the health service in 1950 … I took up fever nursing in the Northern Ireland Fever Hospital, in the middle of the polio epidemic," she told the NHS at 70 project.

"Polio was rampant in Northern Ireland. Vaccination didn't come in until the late '50s, and we had no protection against the disease.

"I arrived in the polio ward, my first ward, at 19. And there were iron lungs going on at the top of the ward and I was frightened to death. I wouldn't even walk up the side of the ward where they were on, in case I would get polio. By a month later, you forgot about it … We were still climbing out of the war years. Not a lot of changes had taken place."

As the new service developed, however, medical technology was improving. After training, Mary took up a post in the cardiology ward at the Royal [Victoria] Hospital in Belfast. "I had six exciting years when we were furthering cardiology. I saw the first patient defibrillated, and I saw the first bypass operation done.

"I had to go to London to see how to nurse the patients who had had their heart stopped and been on the bypass machine for major heart surgery, and I was there for the first patient there. The '60s were the most exciting time to be nursing."

"I had six exciting years when we were furthering cardiology. I saw the first patient defibrillated"

still divide opinion as a possible means to check demand and bring healthcare expenditure under control.

MEETING THE DEMAND

The Conservatives would be in office for 13 years after the 1951 election. The party had accepted the principle of comprehensive healthcare as members of the wartime coalition government. In one 1944 speech to the Royal College of Physicians, Churchill argued for intervention to improve the population's health: "The discoveries of healing science must be the inheritance of all. That is clear. Disease must be attacked, whether it occurs in the poorest or the richest man or woman, simply on the ground that it is the enemy; and it must be attacked just in the same way as the fire brigade will give its full assistance to the humblest cottage as readily as to the most important mansion."

But there were distinctions between Labour and Conservative governments in their approaches to managing the service. The new administration took up its Labour predecessor's search for control and economy with even greater vigour.

Between 1951 and 1955, annual expenditure on the National Health Service levelled off at around £450 million to £500 million, and yearly hospital capital expenditure remained frozen at around £9 million. Health was a declining political priority: it was a minor feature in the 1951 Conservative manifesto and its minister was no longer in the cabinet after a 1952 reshuffle when Iain Macleod replaced Harry Crookshank. Major decisions on funding and further charges were postponed from 1953 when the Treasury appointed the first major committee of inquiry into the National Health Service under economist Claude Guillebaud. The committee was tasked with investigating how further increases in health expenditure might be avoided. Outside government, however, with the stabilisation of expenditure, the sustained pursuit of economy appeared to become increasingly unpopular.

While the service had been introduced to "generalise the best", it had introduced no mechanism to redistribute resources. In setting budgets for Regional Hospital Boards, the Ministry of Health had based its estimates merely on previously existing services. Not all had an equal say in how money was used, and some voices were louder than others. Within the tripartite structure of hospitals, general practitioners and local authorities (the latter without Bevan's promised health centres), a separate tier of administration for teaching hospitals perpetuated inherited geographical health inequalities in the early years of the service. They were to some extent exacerbated by post-war austerity. The freezing of National Health Service capital budgets meant many war-

VOICES FROM THE NHS

SYLVIA NEWMAN

Sylvia Newman, born in North Shields in the North East in 1933, began her nursing career in the early 1950s at Preston Hospital. The hospital "had been a Poor Law institution and it was next to a workhouse, which was still functioning until about 1951 or 1952," she told the NHS at 70 project. "We used to see some of the old ladies wandering around the grounds and coming past the premature baby unit where we worked. We had to take them back because obviously they had dementia.

"Everything was very basic. There were no prepacked instruments or dressings, everything was hands-on. Things were autoclaved, that was a steriliser. You had to pack big drums with gauze swabs, cotton wool swabs, green sheets for theatre and rubber gloves – they all had to be autoclaved. Surgeon's gowns as well, all that sort of thing. And even infusion packaging, that didn't come in until later, until the early '60s. And there were no intensive care units in those days. The ill patients were in the first two beds on the ward, and if they were terminally ill, they were in a side ward. There was nothing like chemotherapy then. Cancer patients were treated just with tender love and care – nursing care, really – or transferred to Newcastle hospitals; they were teaching hospitals."

"Everything was very basic. There were no prepacked instruments or dressings"

damaged hospitals in blitzed cities went unrepaired. By the seventh year of the new service, not a single entirely new hospital had been completed. From the early 1950s, the British public responded with grassroots campaigns for rebuilding local hospitals, sending deputations to the Ministry of Health and initiating debates in Parliament over provision in some of the most neglected constituencies, such as the West Midlands and North Wales.

The continuation of austerity in the service seemed increasingly incongruous as rationing was wound down and Britain experienced sustained economic growth. Demands for reconstruction could only be resisted for so long: eventually Health Minister Macleod felt compelled to make concessions. In 1955, he made a statement to the House of Commons encouraging Regional Hospital Boards to begin planning for rebuilding, although he did not provide for an immediate increase in capital expenditure. Perhaps more importantly, the Guillebaud Committee, appointed by the Treasury to identify further healthcare economies, had drawn quite the opposite conclusion. In Guillebaud's final report, published in January 1956, the committee found that "any charge that there is widespread extravagance in the National Health Service, whether in respect of the spending of money or use of manpower, is not borne out by our evidence". The committee explicitly ruled out any further charges or cuts, presenting evidence that spending

ABOVE
Iain Macleod, Minister for Health, is given a massage demonstration at a physical therapy exhibition held in 1953

LEFT
A mobile dental clinic at work in Kent in 1949

on health as a share of the national economy had in fact declined between 1949 and 1954.

The prioritisation of defence over welfare spending was also affected by the overseas "emergencies" of the post-war period, including the Suez Canal invasion by British forces, which triggered the resignation of Churchill's successor, Prime Minister Anthony Eden, in January 1957. Forced withdrawal from former colonies and violent responses to anti-colonial insurgencies damaged the nation's international standing, though they prompted no immediate break in policy. At the end of the National Health Service's first decade, Conservative Treasury ministers such as Enoch Powell and Peter Thorneycroft continued to press for spending freezes and additional hospital charges. Nevertheless, there was a gradual shift in attitudes towards health expenditure. Advocates of cuts were, ultimately, defeated as the government of Harold Macmillan planned for economic expansion.

Under Conservative stewardship, the existence of a universal and comprehensive National Health Service was never really in doubt. Health ministers after 1951, fearing healthcare demand could be potentially infinite, tailored capital programmes to save money and deliver enhanced central control. Nevertheless, the effect was in the end expansionary. The reconstruction of the National Health Service proposed by Macleod in 1955, and then executed under the 1962 Hospital Plan, guaranteed £500 million in capital funding for the service over a period of ten years – three times more than had been spent in the period since the Appointed Day.

OPPOSITE
Outpatients wait for appointments at the London Hospital, Whitechapel, in 1949

ABOVE
Health Minister Enoch Powell meets the matron of St Giles' Hospital, London, in 1962

The architect of the plan, ex-Treasury minister and Minister for Health Enoch Powell, thought hospital rationalisation, coupled with the large-scale closures of Victorian mental hospitals, would result in economies by ridding the system of its inherited defects. His ten-year vision foresaw the creation of 14 Regional Health Boards, which would oversee the planning and building of one new District General Hospital per 125,000 members of the population. Those needing specialised care – for example, from cardiology or neurosurgery – would travel further, to Regional Hospitals.

Powell also intended to move away from the use of Victorian asylums in mental-health care, and towards community care and provision in general hospitals: in 1961, he described such asylums as "brooded over by the gigantic water-tower and chimney combined, rising unmistakable and daunting out of the countryside".

Overall, the ambitious Hospital Plan would entail the building of 90 new hospitals and the rebuilding of 134 more, and the closure of over a thousand small, local community hospitals and health centres – much to the chagrin of passionate local campaigners, who took to the streets to defend their beloved local settings. Nevertheless, the decade-long increase in capital spending launched by Powell at the start of the 1960s marked the coming of a period of affluence and expansion for the service.

ABOVE
Built in the Victorian era for patients in North Wales, the Denbigh Asylum closed in 1995

LEFT
A hospital ward at night, pictured in 1949

ENOCH POWELL (1912–98)

One of the most charismatic and divisive figures in post-war British politics, Powell was from Birmingham, the son of teachers – his mother taught him Greek. A brilliant and precocious classics student, his academic career was interrupted by the war, in which he was frustrated from an ambition to fight by being selected (given his facility with languages) to work in military intelligence. After the war, he abandoned academia for politics, becoming a powerful advocate for a free-market vision of conservatism, and an even more powerful opponent of integration with Europe. He also started to specialise in policy on health and social service.

Though his independence and intense manner meant it took a long time for him to achieve ministerial office, once he did, in 1955, his ascent was rapid. By 1957, he was in the cabinet, as Financial Secretary to the Treasury, where with his Chancellor, Peter Thorneycroft, he mounted a campaign against inflation and public spending. It ended with the resignation of both when Prime Minister Harold Macmillan refused to back them against the spending demands of individual departmental ministers.

In 1960, however, he returned to ministerial office, now as Minister of Health. The position was then not in the cabinet, though it, and Powell, were restored to cabinet rank in 1962. It was the highest point in Powell's ministerial career. He pursued with his usual vigour the reform of a service that he felt was run more for the benefit of its staff than of its patients, and which was a bottomless pit for spending. Now himself a spending minister, he obtained ten-year funding for his hospital rebuilding and renovation plan, but was faced with possible strikes as he tried to hold down the National Health Service pay bill.

His resignation, in 1963, was a result of the Conservative leadership battle following the departure of Macmillan. He would never hold ministerial office again, his notorious 1968 speech against immigration at the Midland Hotel, Birmingham, and his virulent opposition to Edward Heath's policy of joining the then European Communities ruling him out. They led to a series of clashes with the party leadership that ended with his choosing to sit in Parliament not as a Conservative, but as an Ulster Unionist MP, until 1987.

CHAPTER 5

THE NHS FROM THE 1960s TO THE PRESENT

SO BIG AND EXPENSIVE A STATE COMMITMENT AS THE NHS COULD HARDLY HELP ATTRACTING INTENSE POLITICAL ATTENTION. AT THE NATIONAL LEVEL, THE EXTENT OF THE GOVERNMENT'S SUPPORT FOR THE SERVICE WOULD EMERGE IN THE 1980S AS A MAJOR DIVIDING LINE BETWEEN THE TWO MAIN PARTIES. AND IN EVERY INDIVIDUAL CONSTITUENCY, THE DEMAND FOR LOCAL HEALTHCARE WOULD OFTEN COMPETE WITH IDEAS ABOUT THE BEST WAY TO PROVIDE INCREASINGLY SOPHISTICATED MEDICAL INTERVENTIONS.

CONTRIBUTORS

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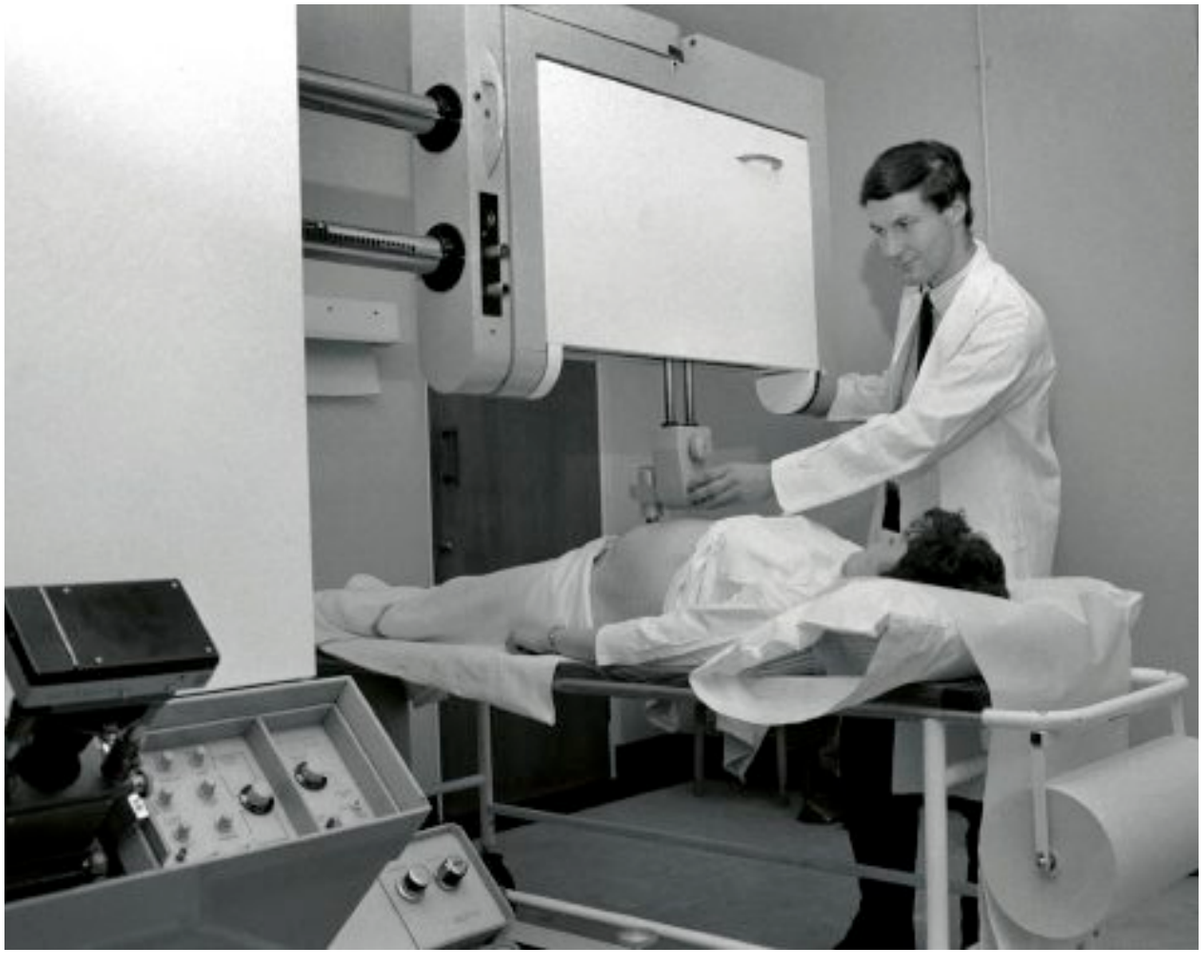
MORE



PREVIOUS PAGES
Nurses from Orpington Hospital, Kent, deliver a petition to their local MP, Eric Lubbock, in 1969, calling for increased staffing at the hospital

RIGHT
An ultra-sound scanner in use at Queen Charlotte's Hospital, London, in 1969

BELOW
A press conference on 4 May 1968 after Britain's first heart transplant was carried out at the National Heart Hospital in Marylebone, London, on Frederick West, by a team led by surgeon Donald Ross (seated at the centre of the table, wearing glasses)

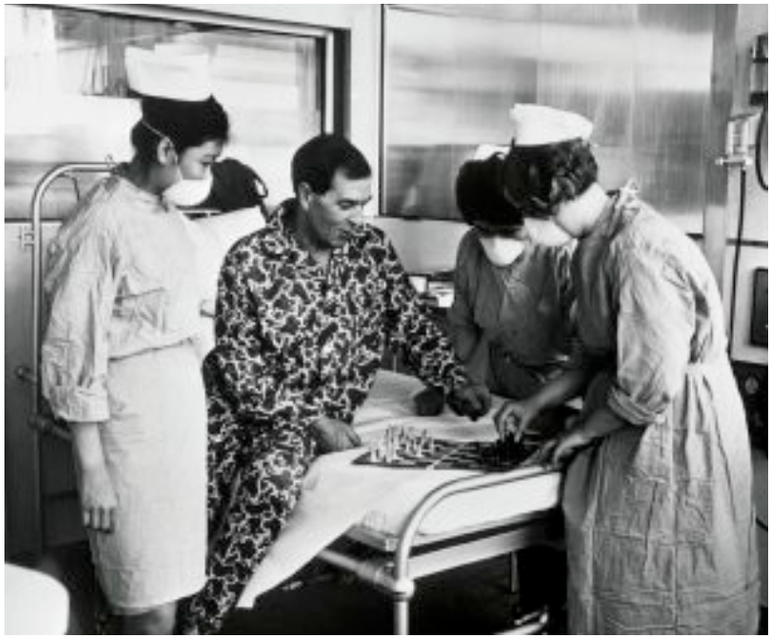
From the 1950s, remarkable medical and technological innovations began to expand the services that the National Health Service could provide. These meant it could reach further than ever before into people's lives, from cradle to grave. But with the advent of new drugs, technologies and specialities came new costs, and subsequent decisions about equity and access would haunt the following decades. The service was always the subject of intense political interest over these choices about medical treatment. It would also be drawn increasingly into difficult political debates over ethical, religious and social questions, such as contraception and abortion, and also the provision of social care for the elderly and long-term sick.

HEALTHCARE INNOVATION

Medical innovation was one of the principal drivers of increasing pressure on the service. New vaccinations were distributed from the 1960s to protect Britons in their earliest years – against polio from 1962, when a vaccine using the live virus in weakened form replaced the original 1956 one that had used an inactivated virus, and against measles in 1968. Ultimately, the polio vaccine led to the eradication of polio in Britain – with the last case acquired domestically in 1984. New drugs were developed in the 1960s, providing new treatments for all kinds of diseases: asthma, arthritis, rheumatism, gout and a range of mental-health conditions. New technologies, such as in nuclear medicine and medical imaging, were developed, though machines were still much slower than today (in the mid-1960s, a liver scan could take up to an hour). New medical specialities were created to provide all these extra services. The number of consultants working in the NHS had already increased from 4,500 in 1948 to 7,000 in 1960.

One symbolic development of the 1960s, which was reliant on new drugs, technological innovation and specialities, was organ transplantation. NHS staff performed their first kidney transplant in 1960, and both their first liver and heart transplants in 1968. The latter was subject to much media fascination. Conducted just six months after the first ever heart transplant, which took place in South Africa, Frederick West, aged 45, received his new heart in a seven-hour operation conducted by a team of 18 NHS doctors and nurses. There was wild public and press speculation that the donor, who had died in a workplace accident, had been killed for his organ. Many medical staff themselves were also still processing the realities of this new technology. *The Guardian* quoted a consultant cardiologist who described heart transplants as "almost amounting to cannibalism". Another doctor, present at this first transplant, later recalled "the absolute horror of seeing a live patient without a heart in their chest ... almost a revulsion". Sadly, West died 46 days after his transplant: the new technologies were still far from perfect.

The 1960s also saw the NHS provide new reproductive technologies and treatments. These were hugely controversial with some religious leaders, though celebrated as at the forefront of women's liberation by campaigners. Enoch Powell as the Conservative



ABOVE
Frederick West pictured recovering from his heart transplant operation in late May 1968. West died 46 days after the operation, after contracting an infection

DEVOLUTION AND THE NHS: ABORTION IN NORTHERN IRELAND

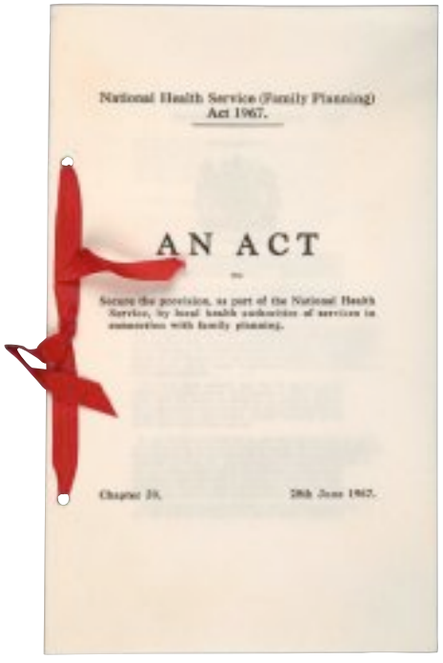
One of the starkest and most consistent differences between the constituent services is reproductive health. The Abortion Act (1967), which made abortion up to 24 weeks legal in most cases, was never extended to Northern Ireland: abortion remained severely restricted within the province, and women from the north were not officially permitted to access abortions within the NHS elsewhere in the UK until 2017. Over decades, many people have worked hard to address this issue – campaigning for a change in the law within Northern Ireland and helping women there access abortions and reproductive health services elsewhere, sometimes at variance with the law.

Linda Pepper, born in 1948 in Doncaster, is a former psychiatric nurse, a long-time activist for womens' reproductive rights and a medical journal editor. In the 1980s and 1990s, she became involved in advocacy and support structures for women from Northern Ireland coming to Liverpool to have abortions. Among her other campaigning activities, she helped set up Liverpool Abortion Support Services (LASS), to help Northern Irish women access abortions in Britain. "Nobody back home knew where they were going," she said in an interview for the NHS at 70/Voices of Our NHS oral history collection. "They'd go to some horrible grotty B&B the night before. We set up stuff with groups in Northern Ireland. We had a rota and we'd meet the women off the boat. We'd take them to our home for the night and give them a really nice night and we'd take them the next morning for the termination."

The effective ban on abortion within Northern Ireland was ended in 2019 – not by the devolved Northern Ireland Assembly at Stormont, but by Westminster due to Stormont's ongoing breakdown in power sharing between Sinn Féin and the Democratic Unionist Party. Campaigning on the issue had been cross-border and many of those involved worked alongside, and were spurred to action by, the successful campaign for the repeal of the Eighth Amendment of the Constitution of Ireland, in 2018. Meanwhile, despite these developments, practical access to abortion within Northern Ireland remains limited.

Demonstrators in favour of abortion rights in front of the Northern Ireland Assembly Building at Stormont, Belfast on 21 October 2019, shortly before legislation came into effect repealing the anti-abortion laws in Northern Ireland

Minister of Health, confirmed in December 1961 to the House of Commons that "birth control pills" could now be prescribed on the service. These were at first only available to married women; from 1967, access was extended to all women by means of a Private Members' bill supported by the new Labour government. This was the National Health Service (Family Planning) Act, introduced by Labour MP Edwin Brooks, an academic who had been elected to Parliament for the Bebington constituency in the Wirral only the year before. In the same year, another government-supported Private Members' bill, this one introduced by the young Liberal MP David Steel, made abortion legal up to 28 weeks, if a woman's mental or physical health was at risk. The NHS was a central organising institution in both of these areas, as NHS doctors were the gatekeepers to determining if women were permitted to have the pill or an abortion, or not. A huge number of women approached the NHS to discuss and use these services. By 1970, 700,000 married women, aged between 16 and 40, were taking a contraceptive pill obtained through their GP.



National Health Service (Family Planning) Act 1967.

AN ACT

Secure the provision, as part of the National Health Service, by local health authorities of services in connection with family planning.

Chapter 39. 28th June 1967.

ABOVE
A petition is presented at No 10 Downing Street on 31 May 1967, calling for a Royal Commission on Abortion, by (left to right) Conservative MP Norman St John-Stevas, Viscount Barrington (a member of the House of Lords), Conservative MP Jill Knight, and Labour MPs Gordon Oakes and James Dunn, accompanied by a police officer

LEFT
The National Health Service (Family Planning) Act 1967, which made contraception readily available through the NHS

"Parliamentary debates raged around whether to charge for beds, and about who should be exempted from prescription payments"

These new procedures and technologies cost more and more money – and the ability of the NHS to provide them, and to support growing numbers of specialist staff, was limited. The cost of the NHS was criticised by sections of the press. In 1968, a *Daily Mail* cartoonist pictured a doctor – wearing a dunce cap – feeding an overweight NHS with the nectar of "Defence Cuts". Conversely, Powell was sometimes depicted as a surgeon, chopping limbs off the NHS using faulty or inadequate equipment. When the Labour government returned to power in 1964, it abolished and then reintroduced prescription charges, looking to reclaim some of the expenses of pharmaceutical treatments. Parliamentary debates raged around, for instance, whether to charge for beds and about who should be exempt from prescription payments.

REORGANISATION AND RECONSTRUCTION

The ability of the NHS to provide new services and treatments was also limited by its run-down buildings: the GP surgeries, hospitals and community care settings nationalised in 1948, some barely updated from their construction in Victorian times. There were significant regional and national inequalities in provision and access to services, and in the local quality of healthcare buildings. Powell's 1962 Hospital Plan had aimed for a radical reconstruction of the infrastructure of the NHS, using capital expenditure to limit the running costs of these poorly maintained old buildings, and to centralise services in District General Hospitals. But while the centralisation of services was, ultimately, deemed a success, the construction programme quickly proved unworkable.

BELOW
Nurses from Orpington Hospital with their petition to Parliament, carried in white cases, in November 1969

ABOVE
The Nurses' Home and Training School at Walsgrave Hospital, Coventry, in 1969. The new hospital was first planned in 1963, and admitted its first patients in 1969. It was demolished in 2007

LEFT
The staff restaurant in the new Greenwich District Hospital, in 1969

It was way behind timetable and way over cost, and dogged by protests about the closure of hospitals. After just a few years, the programme was significantly scaled back.

Powell's plan had concerned hospitals only; but the NHS was not one service but three, divided between public health services provided by local authorities, primary care and hospital services. Integration became universally fashionable in solving the problem; successive ministers, though, remained unconvinced. Kenneth Robinson, Labour's Minister of Health (1964–68), finally caved in to pressure with a 1968 Green Paper tentatively outlining a unified service, directed by area boards replacing the various different authorities that ran the separate services. A start was made with the creation of the Department of Health and Social Security (DHSS) in 1968, but renegotiating Aneurin Bevan's compromise between local authorities and central services proved politically intractable. Robinson was replaced as Health Minister – now titled Secretary of State for Health and Social Services – by Richard Crossman (1968–70), who produced a further Green Paper, responding to some of the criticisms of the original proposal and outlining a system of Local Health Authorities based on local government areas, though local authorities would retain responsibility for public health. Between them and the DHSS were bodies called Regional Health Councils.

In 1970, Labour was ousted at a general election, replaced by the Conservative government of Ted Heath. It fell to the new Secretary of State, Keith Joseph (1970–74), to bring the reforms to a conclusion through a further White Paper and the National Health Service Reorganisation Act (1973). Hospitals, health centres and GPs were brought under the control of the local Area Health Authorities, which reported to Regional Health Authorities. Another change of government in 1974 meant that it was the new Labour Secretary of State, Barbara Castle (1974–76), who finally implemented the changes in April that year, despite reservations. She added her own contribution to the changes, reforming the Community Health Councils that had been introduced by Joseph to ensure representation for local authorities in the reorganised NHS. Altogether, the entire fabric of the service was unravelled, renegotiated and reassembled.

TOP LEFT
Kenneth Robinson, Minister of Health (right), at the International Hospital Equipment Exhibition in London, June 1967

TOP RIGHT
Richard Crossman, Secretary of State for Social Services, at the meeting of the Association of Hospital Matrons at Church House, Westminster, in 1969

LEFT
Keith Joseph, Secretary of State for Social Services, speaks at the Conservative Party Conference in Blackpool, in October 1970

OPPOSITE
Barbara Castle when Secretary of State for Health and Social Services, photographed in 1974

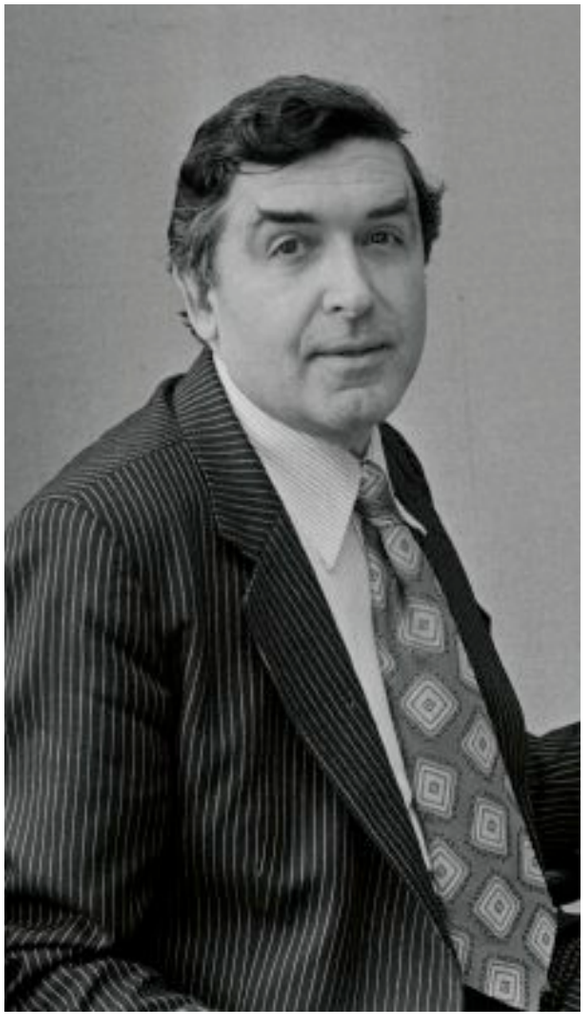
"Reforms were focused on public-private partnerships to build new hospitals, the recruitment and retention of staff, and regulating the new market structure"

HIV AND AIDS: CHRIS SMITH

The arrival of a frightening new disease in the 1980s challenged many people's basic attitudes towards healthcare. HIV was first identified in 1982. The fact that it was transmitted through sexual activity, and that at first at least it principally affected the gay community, meant that it was seen by many in moral terms; that it was highly virulent, with high mortality, meant that it was also deeply feared. After the government's initial uncertainty over how best to react, information campaigns in the mid-1980s sought to inculcate a more measured understanding of the disease, while public figures, including Diana, Princess of Wales, worked to reduce the stigma experienced by sufferers.

One of those closely affected was Labour's Chris Smith (MP for Islington South and Finsbury, 1983–2005). Smith was himself gay: in 1984, having been in Parliament for little over a year, and just as the crisis over HIV and AIDs was developing, he chose to announce the fact in a public speech. He received a standing ovation and much support from his colleagues. For a time in the 1992 Parliament, he served as shadow secretary of state for health. What Smith did not say publicly was that he had been diagnosed as HIV positive in 1988, and lived with the threat of the disease developing into AIDS throughout his long career in front and backbench politics. The politician did not speak openly about it until after he left the Commons in 2005. Now in the House of Lords, he became the Vice-President of the Campaign for Homosexual Equality in 2009 and a champion for the Terrence Higgins Trust in promoting understanding around HIV and AIDS and the revolutionary changes in treatment that allow many with the disease to live long and healthy lives.

Chris Smith at the Labour Party Conference in Blackpool in October 1996



The resulting 1974 reorganisation proved more fragile than the 1948 system. Prime Minister Harold Wilson deflected attention over its protracted gestation by announcing the Royal Commission on the NHS in 1976. It showed how integrating hospital and public health services had only been achieved by creating a complex three-tier system of health authorities that satisfied its architects but no one else. The system was bureaucratic and inflexible, with new "consensus management" structures creating an impasse over difficult decisions. The financial fallout from the 1973 oil crisis and new cash limits for health spending were the final nails in the coffin for the reorganised NHS. After the 1979 election – a landslide victory for Margaret Thatcher's Conservative party – another new Secretary of State, Patrick Jenkin (1979–81), moved swiftly to reduce an entire tier of bureaucracy, the Area Health Authorities, by 1982.

THE 1980s AND 1990s

The abolition of Area Health Authorities was not the conclusion of the reform process. Rationalisation, specialisation and modernisation costs, with limited resources, all had an impact on the operation of the NHS during the 1980s. In addition, improvements in treatments and technologies also meant that the quality of care that was medically feasible was never affordable in practice. A protracted pay dispute from 1982 to 1983 reflected the new government's determination to restrain public spending. The continued squeeze on hospital budgets reflected it, too. For the NHS to continue, sweeping change was essential, but the nature of that became highly politicised. Labour made it an issue of the 1983 election, claiming that the Conservatives were beginning to dismantle the NHS – a charge Thatcher vehemently denied. Following the Conservative election win, private sector management techniques were introduced through an influential report from Sainsbury's Director Roy Griffiths at Thatcher's invitation in 1983. They included a central NHS executive in Whitehall. But the pressures continued. In the late 1980s, the NHS became a high-profile political battleground to an extent it had never been before.

TOP LEFT
Patrick Jenkin, Secretary of State for Health and Social Services, in 1979

TOP RIGHT
Nurses from the Royal College of Nursing deliver a petition to No 10 Downing Street in 1979, calling for better pay

In the wake of a third Conservative election victory in 1987, the Thatcher government embarked on a radical new approach, based on the introduction of market principles into the NHS. It was initially a reaction to a financial crisis and criticism over the handling of the worst winter crisis in the NHS until then. The first that the then Secretary of State, John Moore (1987–88), and the Department of Health knew about the most radical reform in the history of the NHS was when Thatcher announced it live on the BBC *Panorama* programme in January 1988. A lengthy Prime Ministerial review ensued with few practical results. It was only with the arrival of Moore's replacement, Kenneth Clarke (1988–90), combining wilfulness with experience as a junior health minister, that reform gathered pace. An internal market was created in the interests of economy, efficiency and effectiveness that split the entire NHS in two between purchasers and providers. Entrepreneurial GPs became fundholders, spending money on behalf of their patients, while self-governing trusts managing hospitals and community services competed for custom. Although the new system did not (as some had feared) change the principle of a publicly funded NHS free at the point of use, it challenged existing hierarchies, signalling the end of the old command-and-control NHS and ushering in a new marketised one. The reforms aroused widespread opposition, particularly given the way they were rushed onto the statute book in the National Health Service and Community Care Act (1990). Clarke moved on, and the internal market was launched in April 1991 under his successor, William Waldegrave (1990–92).

ABOVE
Nurses take part in a demonstration by the National Union of Public Employees at Heathrow Airport in 1988, holding "Wanted!" posters of the Secretary of State for Health, Kenneth Clarke

Over the next six years of Conservative government, the new principles were consolidated, along with other reforms, including a GP contract that tied pay much more closely to performance and a White Paper, "The Health of the Nation", that shifted the focus of health policy beyond the management of services. There were further reorganisations under the Health Authorities Act (1995) and the NHS (Primary Care) Act (1997). Despite sounding against the reforms in opposition, New Labour, after its massive electoral victory of 1997, eventually decided to retain the main elements and build on them. Its reforms were focused on public-private partnerships to build new hospitals, the recruitment and retention of staff, and regulating the new market structure in the interests of patient safety and choice.

The new government also injected money. Prime Minister Tony Blair famously stole Chancellor Gordon Brown's prudent budget for this purpose in early 2000, committing to match health spending in line with other European Union nations. In exchange for the new money, though, further modernisation was required. An accompanying NHS Plan was widely welcomed: drafted by Labour's second Health Secretary, Alan Milburn (1999–2003), it reflected a new way of planning the reform of the NHS by centralising power and leaning upon special advisers rather than civil servants. Delivering the NHS Plan, which followed in 2002, bore all these hallmarks in refashioning both purchasers and providers. Purchasers were amalgamated into primary care trusts and rebranded as commissioners, while

ABOVE
The Labour ministerial team outside the Department of Health, Whitehall, in 2001: (left to right) Lord Hunt, Yvette Cooper, Jacqui Smith, Alan Milburn (Secretary of State for Health), Hazel Blears and John Denham

"Implemented against the backdrop of the Covid-19 pandemic, commissioners were replaced by new Integrated Care Boards"

providers could apply for greater independence from central control by becoming foundation trusts.

Those who could not pass the rigorous process faced being acquired by more successful neighbours in the new healthcare market. Like Clarke, Milburn was replaced before the plan was fully implemented, and after Brown replaced Blair as Prime Minister in 2007, there was a new round of reform. The private health sector had proliferated since the 1980s. Initially, it serviced individual patient demand, but later grew in symbiosis with the NHS to tackle waiting times and provide specialised services. This forward march of the private sector led by Milburn for New Labour was halted under Secretary of State Alan Johnson (2007–09). However, ambitions of further reform were hamstrung following the 2008 financial crash.

The election of 2010 saw the end of Labour's 13-year period in power. The reforms introduced in 2013 under the Conservative-Liberal Democrat coalition are forever associated with their instigator, Andrew Lansley, the Conservative Health Secretary. Written in just 60 days and enduring a difficult passage through Parliament given the uneasy electoral pact, liberating the NHS had several repercussions. First, it created NHS England, separating management of the NHS from direct political involvement. Second, commissioning of care was devolved to GP-led bodies. Third, it opened the internal market to external competition by allowing services to be contracted to any willing provider. The changes were widely opposed as overambitious and impractical, and the austerity policies of the coalition and a loss of managerial expertise exaggerated their impact. Lansley, like his reformist predecessors, did not remain in post for long enough to see the plan implemented.

The controversy over the Lansley plan led the way for integration again to become universally fashionable. The policy was pursued by the special adviser who had worked with Milburn, Simon Stevens, from 2014 the Chief Executive of NHS England. Momentum had developed during the 2010s, culminating in the 2021 White Paper "Integration and Innovation". Implemented against the backdrop of the Covid-19 pandemic, commissioners were replaced by new Integrated Care Boards. These gave primacy to place, fostering partnership between health and social care. Time will tell whether this heralds a new chapter in the history of the NHS, or the latest well-intentioned attempt to reform a flawed but loved public institution.

THE NHS AND DEVOLUTION

The NHS is not one national organisation, but four: NHS England, NHS Scotland, NHS Wales (GIG Cymru), and Health and Social Care (HSC) in Northern Ireland. Although all four are a result of the same series of acts in 1948, and were formed as part of a nationwide health service for the whole of the UK, their histories since 1948 have been different.

To some extent, their antecedents were also different. In Scotland, for example, the Highlands and Islands Medical Service (HIMS) had been providing state-administered healthcare (not free, but not dependent on ability to pay) since 1913, and large-scale provision of new hospitals during the Second World War was already being used to reduce backlogs when the NHS was set up in 1948. Afterwards, responsibility for the NHS in Scotland and Northern Ireland was vested in the territorial departments, the Scottish Office and the Northern Ireland Office. In Northern Ireland in 1973, the NHS was merged with social care and became known as the Health and Social Care system. In 1969, responsibility for the NHS in Wales was transferred to the then Welsh Office.

The series of acts setting up devolved governments in Scotland, Wales and Northern Ireland in 1999 confirmed this split, making healthcare a devolved matter. The devolved administrations have been free to determine their own priorities and policies, and in Scotland and Wales have tended to emphasise collaboration and integration more than in England, while setting less store by targets and accountability mechanisms. In Scotland in 2004 and in Wales in 2009, the purchaser-provider split introduced into the NHS in the 1990s was abolished. Both countries ended prescription charges, in 2011 and 2007 respectively, and Scotland introduced free personal care for the over-65s from 2002.

OPPOSITE TOP
Secretary of State for Health, Andrew Lansley, is heckled outside Downing Street in February 2012, as his Health and Social Care Bill reached its final stages in Parliament

OPPOSITE BOTTOM
Jeremy Hunt, Lansley's successor as Secretary of State (left), with NHS England Chief Executive Simon Stevens (centre) and Chancellor of the Exchequer George Osborne (right) on a visit to Homerton University Hospital NHS Foundation Trust, London, in 2014, led by nurse consultant Carron Weekes


NHS
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One of the areas in which the difference of administrations is most obvious is in public health, where clinicians work with policymakers in devolved governments to make decisions that can have dramatic effects, addressing specific issues of importance to the country concerned. For example, in an interview for the NHS at 70 project (a series of recordings on the service's history), Peter Rice, a consultant psychiatrist from southern Scotland, explained how he helped to develop the change in law that culminated in minimum alcohol price legislation in Scotland in 2018: "People see their countries or communities having a history with alcohol. They think that history is unchanging. 'Ach, well, that's just what Scotland's like'. There's a sense of inevitability. It's such powerful, cultural, historical, agricultural forces here that you'll never change it. That isn't true … We've now got to a place where Scotland's a world leader in alcohol policy. A mortality fall of 30 per cent in less than ten years."

The room for different approaches to public health was also palpable during the Covid-19 pandemic, especially after the first lockdown in 2020. Scotland, Wales and Northern Ireland were able to impose different lockdown rules and alert systems, reflecting local differences in the timing and geography of outbreaks in ways that were often more targeted and responsive than those within the much larger constituency served by NHS England; different political understandings of the complex trade-offs and social impacts of lockdowns and other mitigation measures also widened the policy gap.

ABOVE
MP Jim Prior with Ted Heath, leader of the Conservative Party and later Prime Minister, in Piccadilly, London, during the general election campaign in May 1970

POLITICIANS AND THE NHS

The NHS has become one of the biggest political issues in the UK, with coverage of its fortunes and future dominating election campaigns and the interactions of individual Members of Parliament with their constituents. The struggles to run it, influence it, or reform it, have preoccupied politicians. Political disagreements over the NHS have not always been straightforward and have cut across all political parties. Few British politicians have quarrelled with the basic idea behind it. But many have struggled with the debates how to improve its organisation and, most importantly, services to constituents. In his interviews with the History of Parliament's Oral History project – a sound archive of British politics since 1945 – former Conservative Minister Jim Prior (MP for Lowestoft, renamed Waveney, 1959–87), stressed his support for the NHS while wanting to "try to get a bit of competition into it" and "cut down on the bureaucracy". But his party colleague Thomas Stuttaford, who pursued his political career alongside his work as a GP, criticised Conservative Health Secretary Keith Joseph's reforms of the system as "all the nonsense of closing hospital beds … which has caused nothing but trouble ever since".

Many Labour MPs, particularly those who served in Tony Blair's government from 1997 to 2010, were proud of the investment in the NHS under their watch. But a significant and vocal minority of them disagreed profoundly with the continued use of competition within management and New Labour policies, such as the Private Finance Initiative. For some Labour politicians, these reforms fundamentally undermined the principles of the NHS and threatened its future. Labour's David Hinchliffe (MP for Wakefield, 1987–2005), who would go on to chair the House of Commons Health Select Committee, remembered how his father had been cared for by the NHS through serious illness. It made him passionately hostile to New Labour's reforms, which he described as "fundamentally unhealthy" for the system. He led a rebellion in the Commons against his own party's introduction of Foundation Trusts. Liberal Democrat Jenny Tonge (MP for Richmond Park, 1997–2005), herself a GP and manager in the NHS, told us she was "furious" with her party's decision to join a coalition government with the Conservative Party in 2010, and with its support for the Health and Social Care Act. But MPs of all parties could find the NHS an intractably difficult problem. Labour's Peter Bradley (MP for The Wrekin, 1997–2005) recalled that when his local health authority was provided with an apparently huge investment of funds, it "would always come back to us and say, 'Ah yeah, but we're in financial crisis'".

Individual MPs have used their voices within Parliament and outside it to campaign in different capacities – not always successfully – for change. Whether outspoken over

BELOW
Liberal Democrat Jenny Tonge (later Baroness Tonge) (centre, wearing yellow jacket) with party leader Charles Kennedy and campaigners and voters in Richmond upon Thames, London, during the 2001 general election campaign

Sue Threakall, whose husband Bob, a haemophilia sufferer, died in 1991 after contracting HIV from contaminated blood products, talks in the House of Lords in 2007 to the campaign for a public inquiry

THE CONTAMINATED BLOOD SCANDAL

One of the most serious and lengthy campaigns mounted by politicians over the NHS has concerned the use of contaminated blood products in the treatment of haemophiliacs, the worst medical scandal in the history of the NHS. During the 1970s and 1980s, large numbers of haemophiliacs were given factor products to induce clotting as part of their treatment for minor injuries. Lacking a domestic supply, the NHS relied heavily upon imports from the US, where a payment system for donations led to many of the more vulnerable people in society giving blood in return for money. Much of it was contaminated with hepatitis C or HIV. Thousands of haemophiliacs were infected and died before the problem was identified, and action was taken to prevent the transmission of either disease through blood products.

The resulting lack of accountability and responsibility for this tragedy within the NHS fuelled cross-party support for action. Conservative Dame Elaine Kellett-Bowman (MP for Lancaster, 1970–97) was one the earliest Members involved, acting as an advocate in the emerging All-Party Parliamentary Group when discussing recognition and compensation, and promoting the concerns of The Haemophilia Society among her colleagues. Some compensation was provided, but a resolution proved elusive, a frustrating story of litigation and documents destroyed, by accident or design.

It was a group of former MPs, now Members of the House of Lords, who became the most tenacious advocates of those who had been infected, among them a former Labour Minister of State for Health (and former doctor), David Owen. Gaining cross-party support, including from the former Conservative Secretary of State for Health and Social Security, Lord Jenkin, Owen pushed for a public inquiry, eventually securing one in 2018. Owen gave powerful evidence on the obstacles and barriers he had faced in promoting the cause. The inquiry has now completed taking evidence, and a report is awaited.

"Operating on a cross-party basis, the Health Select Committee can offer a more measured assessment of government policy than individual opposition politicians"

treatment scandals and injustices, recognising new and emergent health needs and patient groups, or holding the government to account over the quality of its services, MPs and Parliament have been at the centre of many of the big debates about the NHS at central and local level.

Those with most impact have, naturally, been the successive Ministers and Secretaries of State: major politicians such as Aneurin Bevan himself or Enoch Powell or Kenneth Clarke have had a significant role in negotiating and navigating management change and adaptation over the NHS's 75 years. Some of them have entered the position with huge plans; though often they have moved on to other roles before they could see them through to completion.

The Labour Minister of Health Kenneth Robinson, for example, brought with him a longstanding commitment to the improvement of mental-health services: he had been the first Chair of the National Association of Mental Health (now Mind) from 1946 and wrote for the Fabian Society on the need to modernise mental-health policy. Yet it was his successor, Richard Crossman, who became better known for championing the issue within the NHS. Crossman – who had not previously been significantly concerned with mental health – became involved only as a result of damaging events. In 1967, a major scandal broke over patient conditions at Ely Hospital in Cardiff, a long-stay institution for those with learning difficulties. A whistle-blowing nurse at the hospital leaked the story to the press, and the publication the same year of the book *Sans Everything*, a description of inhumane conditions in similar hospitals spearheaded by campaigner Barbara Robb, helped to convert the scandal into a demand for action. Where Robinson had deferred to advisers and civil servants in developing mental-health policies within the NHS, Crossman bypassed them. He created new regulatory machinery for these usually isolated institutions and raised policy spending priorities on the less glamorous, "Cinderella" services to address longstanding deficits in resourcing, quality and status. On Crossman's departure in 1970, however, many of his policies become diluted or waned without his leadership.

Most departments have a number of ministers. In the Ministry of Health, and its successors, it has often been the more junior ministers who have taken on the largest role in policy development and implementation. Many of them have become at least as well known as the formal head of the department. Labour's David Owen (MP for Plymouth, Sutton, and Plymouth, Devonport, 1966–92), the doctor who served as a junior health minister in the Labour government between 1974 and 1976, described himself as a "moderniser" of the health service, one of the "architects of the internal market". Interviewed much later for the History of Parliament's Oral History project, he said that he sometimes wondered whether it had been worth it. He recalled Enoch Powell's description of running the ministry: he had expected to grapple with great moral

ABOVE
George Thomas (far right), then Secretary of State for Wales, listens to Deputy Sister Margaret Davies in Ely Hospital, Cardiff, in April 1969, after the publication of the report of a Committee of Inquiry into ill-treatment of patients at the hospital

or ethical decisions; instead, he seemed to find himself only ever discussing money. Money, or the lack of it, has usually dominated ministers' lives. The Conservative junior Health and Social Security Minister from 1993 to 1996, John Bowis (MP for Battersea, 1987–97), recalled in his interview with the project that at the start of the financial year there might be funding available for mental-health initiatives, but by the end of the year this budget would have been raided for more popular concerns.

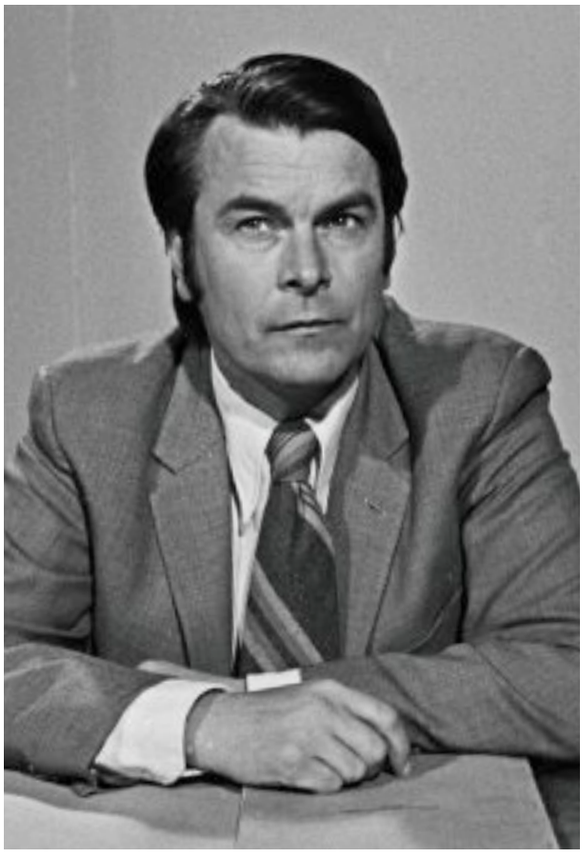
For all ministers, health is a high-profile, very exposed brief. Bowis remembered how ministerial colleagues attending the Royal College of Nursing conference during his time "all had experienced a pretty hostile reception", though his, he said, was more friendly. Conservative Edwina Currie (MP for South Derbyshire, 1983–97), junior Health Minister from 1986 to 1988, particularly loved speaking in the House of Commons and outside it: "I was absolutely in my element, that feeling of 'I am in the right place'." It got her into trouble, though, when a remark about the risk of salmonella poisoning from eating eggs ended with her forced to resign. In her interview for the History of Parliament project, Currie admitted she had confused some of the different figures, though she defended her decision to raise the issue, since the number of salmonella cases had been growing at the time.

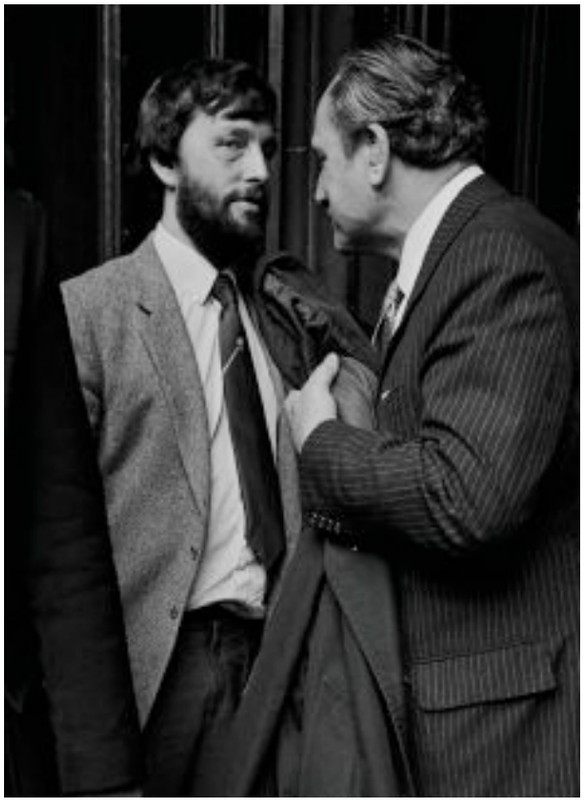
Despite the stressful and exposed nature of these ministerial jobs, many of those who have held them have regarded them as extremely satisfying. Owen described it as "the greatest job I did. I far more preferred it to being Foreign Secretary", while Bowis said, "I think health was my first love in government, it wasn't my first job … but it was the one I appreciated most." After losing his parliamentary seat, he continued to work on difficult and stigmatised health issues, such as mental health, epilepsy, diabetes and incontinence, through the European Parliament and various non-governmental organisations, including the World Health Organisation. Currie talked with pride of her work raising awareness of HIV and AIDs, introducing cancer screening and promoting good health initiatives, such as the "Look After Your Heart" campaign, working with the media and supermarkets to promote a healthier lifestyle.

It is not only ministers who make a difference. The major opposition politicians have valuable platforms from which they can act as the goads of government policy. One of the most persistent was Labour's David Blunkett (MP for Sheffield Brightside and Hillsborough, 1987–2015). Blunkett held the shadow health portfolio from 1992 to 1994, just after the introduction of sweeping reforms, which had allowed the government to appoint new non-executive members into new self-governing

BOTTOM LEFT
Dr David Owen as Minister of State for Health and Social Security in 1974

BOTTOM RIGHT
John Bowis (left), when a Member of the European Parliament, at a meeting on euthanasia in 2001





NHS trusts. Blunkett's persistent campaigning over the lack of democratic accountability for the trusts influenced the new Committee on Standards in Public Life. Here, complaints about improper appointments on NHS trusts were the single largest source of submissions to the committee and helped to result in a more transparent appointment process for non-executive members.

Chris Smith, who held the shadow health brief for Labour from 1996 to 1997, relished the opportunity to make political capital out of the government's difficulties with the NHS: "Health is a wonderful job in opposition, in government it's a nightmare." But even then, money can be a constant preoccupation; Smith complained that he was hampered in his ability to challenge government policy because of Labour's commitment to match Conservative spending plans during the first two years of government if they won the 1997 election. This he described as "Holy Writ" in the shadow cabinet and it took "blood, sweat and tears" to get Tony Blair or Gordon Brown to agree any increases, even when the Conservatives themselves had accepted them. Despite healthcare being one of the centrepieces of Labour's 1997 election campaign, Smith felt he had "no authority to make any spending commitments", and even described some of the electioneering on the NHS as "over the top". Proud as he was of the money that the Labour government did pour into the health service, he was pleased that someone else had been given the responsibility to see it through.

Much of the most effective work on health has been done through the Health Select Committee (currently the Health and Social Care Select Committee), one of the departmental Select Committees of the House of Commons. Since the inception of the Select Committee system in 1979, it has become an enduring and robust source of criticism around the NHS, able to hold the government of the day to account across a range of issues. Operating on a cross-party basis, the committee can offer a more measured assessment of government policy than individual opposition politicians who are focused on making a case against the current administration. Some chairs of the committee have built their role into a substantial platform for interventions in health policy: indeed, two – Stephen Dorrell and Jeremy Hunt – held the chairmanship following prominent stints as Secretaries of State (1995–97 and 2012–18, respectively). David Hinchliffe thought the chairmanship gave him a higher status in Parliament than he had had as a member of Labour's frontbench team in opposition, and certainly enabled him to get beyond the "frustrating, very superficial", "petty point-scoring" debates in the house to grapple with policy detail. A Conservative Chair of the committee, Dame Marion Roe (MP for Broxbourne, 1983–2005) recalled how for an inquiry on children's health, she was able to assemble a variety of expert witnesses and special advisers to provide a formidable grounding for questioning ministers.

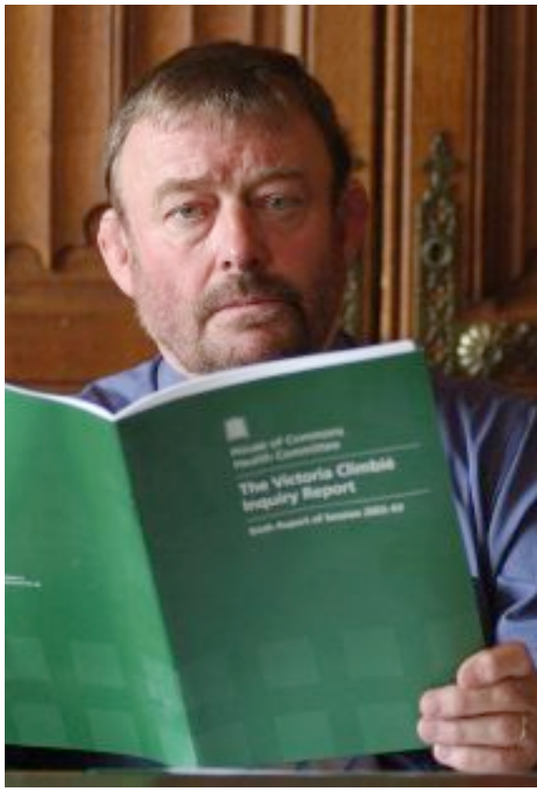
TOP LEFT
Edwina Currie, the junior health minister in 1988

TOP RIGHT
David Blunkett, arriving at Westminster in 1987 for his first day as an MP

THE BACKBENCH MP AND THE NHS

For most backbench MPs, the NHS is a constant preoccupation in their interactions with their constituents. Politicians find themselves constantly faced with stories about the NHS on the campaign trail or in casework. In their interviews with the History of Parliament's Oral History project, Labour MPs recalled how well their pledges to cut waiting lists went down with constituents on the doorstep in 1997. Some of them were more uncomfortable when campaigning in 2001 after their first term: the Labour Party's Linda Gilroy (MP for Plymouth, Sutton, 1997–2010) reported hearing about constituents waiting months for hip replacements, and of a nurse forced to pay for private care in order to return to her own NHS job. Increasingly, MPs have been driven to intervene personally in the details of an individual constituent's dealings with the NHS, writing letters to ensure a hospital bed, for example. But some issues defeat the lone backbencher: Conservative Adrian Flook (MP for Taunton, 2001–05) wrote on behalf of one couple who were struggling to pay for IVF treatment as it was not covered on the NHS under their health authority. There was very little he could do.

MPs often struggle with squaring the interests of their constituents with the wider policies of their party. The fate of a local hospital may make or break a career:



ABOVE
Jeremy Hunt, then Secretary of State for Health, and Simon Stevens, as NHS Chief Executive, give evidence on the Comprehensive Spending Review on health and social care to the Health Select Committee chaired by Dr Sarah Wollaston (centre, top) in May 2016

LEFT
David Hinchliffe, then Chair of the Health Select Committee, with a copy of his committee's report following the Victoria Climbié inquiry, in 2003

SELECT COMMITTEES: CHILDCARE AND MATERNITY SERVICES

Childcare and maternity services provide a particularly good example of how Select Committees have been able to mould public policy and goad government into keeping up with best practice. In the first place, policy was shaped by another committee, the Social Services Committee, whose report on "Perinatal and Neonatal Mortality", published in 1980, not long after the inception of the system, set the tone for all subsequent involvement in the issue. Chaired by Renée Short, the left-wing Labour MP for Wolverhampton North East (1964–87), the inquiry was established following a tide of criticism about high perinatal mortality throughout the 1970s, despite the fact that hospitalisation had become the norm in childbirth.

The 1959 Cranbrook and 1971 Peel Reports – both products of medical interests in the organisation of services – created targets for hospitalised childbirths of 70 per cent and 100 per cent, respectively. The Short Report highlighted persistent rates of mortality and morbidity that were not reduced by hospitalisation alone. There were clear differences between the location of childbirth, availability and quality of supporting services, and the experiences of expectant mothers. The report – along with a follow-up report in 1984 – pressed for greater professional standing for midwifery and the closure of GP-led units to reduce disparities in care.

Ten years or so later, the 1991 and 1992 Health Committee reports on maternity services returned to the issue. The committee, led by the right-wing Conservative MP for Macclesfield, Nicholas Winterton (1971–2010), criticised medicalisation and hospitalisation in childbirth as at times paternalistic and dehumanising. They recognised the value of smaller birth units, with mothers able to be involved in plans over delivery, continuity in care and the greater control this afforded to mothers and midwives alike. Notwithstanding concerns about safety raised through the ensuing Expert Maternity Group Report in 1993, the Winterton Report heralded a shift in public expectations, particularly for women who often felt pressured by professionals, about the quality of maternity services.

Nicholas Winterton canvassing in Macclesfield, Cheshire, during the by-election campaign at which he won the seat in September 1971

The committee has returned to the subject more recently, too. After a spate of inquiries into poor care and unnecessary deaths in Morecambe Bay and Shrewsbury – and with further inquiries covering Kent and Nottinghamshire in progress – its 2021 report on the safety of maternity services was excoriating. The Select Committee's Chair was then Jeremy Hunt; the longest-serving Secretary of State for Health and Social Care, he brought considerable insight into the issues involved. The report built upon the lived experiences of many who had campaigned for the inquiries following poor treatment and little help from hospitals. It placed clear targets upon the government to reduce unsatisfactory and unacceptable performance, improve maternity safety and offer personalised care.

"Casework and other experiences with constituents have often led to campaigns that affect the whole of the NHS, not just the constituency, and have an impact on lives across the country"

a planned closure, or need for significant investment, might either be a cause for a great opposition campaign, or a source of embarrassment if one's own party was in government. Labour's Eileen Gordon (MP for Romford, 1997–2001), made her way in local politics through the campaign to save Oldchurch Accident and Emergency department. MPs across the political spectrum described campaigns to replace old workhouse hospitals – including Conservative Elizabeth Peacock (MP for Batley and Spen, 1983–97) and Labour's Parmjit Dhanda (MP for Gloucester, 2001–10). Peacock – described by a colleague as "a bloody nuisance" for her battle for increased funding – emphasised the importance of local facilities to her constituents; although she could see the appeal of centralisation, not everyone could travel as far as Leeds for their care. For Conservative John Marshall (MP for Hendon South, 1987–97), however, the threatened closure of Edgware General Hospital by his own government meant he had to resign his position as Parliamentary Private Secretary for speaking out against it. One MP had no need to balance the interests of his constituents against the political imperatives of his party as a whole: in 2001, Richard Taylor, a consultant at Kidderminster General Hospital campaigning against the closure of its accident and emergency department as part of local service rationalisation and reconfiguration, stood as an independent in the general election of that year in his Wyre Forest constituency. To general astonishment, he defeated the incumbent Labour candidate David Lock. Re-elected in 2005 with a reduced majority, he spoke frequently around local and national health issues, and became co-chair of the All-Party Parliamentary Group for Local Hospitals.

But casework and other experiences with constituents have often led to campaigns that affect the whole of the NHS, not just the constituency, and

LEFT
Far left to right: Labour's Linda Gilroy in 2001; Conservative Adrian Flook in 2001; and Labour's Eileen Gordon in 1997

have an impact on lives across the country. Labour's Peter Bradley explained to the History of Parliament's Oral History project how he took up his health authority's complaint about the way prescription charges were being abused, earning millions of pounds for pharmaceutical companies. His campaign inside and outside Parliament made his government's health ministers "quite cross" but, he claimed, helped to secure reforms that saved roughly £250 million a year. Campaigns by individual MPs have, in fact, often been remarkably effective in securing important legislative changes in health services for women in the NHS. Though they were, ultimately, the product of negotiations within the NHS and across civil society, the persuasive and persistent efforts of individual MPs in building up cross-party coalitions – something much more difficult for governments themselves to do – have often proved highly effective in shaping change at a legislative and policy level. A combination of commitment, pragmatism and networking was instrumental in securing dramatic change across Parliament in cases such as the 1967 Abortion and Family Planning Acts, both of them in origin Private Members' bills.

David Steel's success with the Abortion Act was a matter of building a cross-party coalition and securing the support, or at least assent, of the government, the Catholic Church and significant voices in the Royal College of Obstetricians and Gynaecologists. Edwin Brooks, though an MP for only one term, secured agreement for his Family Planning Act by addressing both the demand on the left for women's reproductive rights, and on concerns on the right about overpopulation and migration, especially in Britain's inner cities. The Conservative MP and GP Thomas Stuttaford organised support from his party for the campaign. Another doctor, Liberal Democrat Jenny Tonge, mounted a campaign for over-the-counter emergency contraception that found willing support from the then Labour Health Ministers Frank Dobson and Yvette Cooper. Conservative Sir Roger Sims (MP for Chislehurst, 1974–97) promoted a Private Members' bill to enable nurses to prescribe certain medicines. It was supported cross-party and backed by the Royal College of Nursing.

ABOVE
Parmjit Dhanda (far right) with Ed Balls, Secretary of State for Children, Schools and Families, in his constituency in Gloucester during the general election campaign in April 2010


NHS

CHAPTER 6

LEARNING THE NHS

OVER ITS 75 YEARS OF EXISTENCE, THE NHS HAS BECOME EMBEDDED WITHIN BRITISH LIFE LIKE NO OTHER INSTITUTION. IT HAS REFLECTED, BUT ALSO BEEN A CATALYST FOR CHANGE. IT HAS RISEN TO THE EXCITING YET DAUNTING CHALLENGES OF COMPLEX NEW TECHNOLOGIES. BUT IN THE FACE OF ITS GREATEST CHALLENGE OF ALL SO FAR, THE COVID-19 PANDEMIC, THE NHS HAS STRUGGLED, WITH THE PROBLEMS OF AFFORDABILITY AND MANAGEMENT – THE CONSTANT THEMES OF ITS HISTORY – EXPOSED MORE STARKLY THAN EVER.

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The NHS is, today, one of the most prized of British institutions. Its 75th anniversary has been marked by "birthday" celebrations, from small street tea parties to major museum exhibitions. Yet the NHS only came to occupy its current place in the affections of the British people gradually. First they had, as historian Mathew Thomson has argued, to "learn" the NHS: what it was, how to use it and how to love it. Politicians were the first to mark anniversaries of this service, not so much out of "love", but more for political point scoring. A debate was held in the House of Commons to mark the tenth anniversary of the creation of the NHS in 1958. Introduced by Aneurin Bevan – the Minister of Health who founded the service – the debate revealed both Labour and Conservative parties trying to take the credit.

Public love for the service grew significantly in the 1960s and 1970s, alongside familiarity with its systems and nuances. Television and film helped to make the NHS an object of affectionate teasing: the hugely popular Carry On and Doctor films took a comic approach to NHS settings, and one of Britain's first soap operas, *Emergency Ward 10*, which ran from 1957 to 1967 on ITV, followed the careers of young medics from hospital training to general practice. Books, too, contributed, as Mills & Boon began to publish romantic novels set in NHS hospitals and general practitioner surgeries. All of these cultural representations, Thomson has argued, "helped to make the British people feel at home with the new service, breaking down fear of hospitals and suspicion of state provision".

As successive generations grew up with the NHS, with family stories and cultural representations, they began to love it. In 1976, Labour's Secretary of State for Health and Social Services, Barbara Castle said that "the National Health Service is a church. It is the nearest thing to the embodiment of the Good Samaritan that we have in any respect of our public policy." This was echoed by Conservative politician (and former Chancellor of the Exchequer) Nigel Lawson, who wrote in his 1992 memoirs that it was "the closest thing the English have to a religion".

By 1998, when the 50th anniversary was celebrated, the service was not just a medical provider but a cultural icon. In the second decade of the 21st century, merchandise was being produced proclaiming that people were "Born in the NHS" or "Love the NHS"; in the 2012 Olympic opening ceremony, Britain presented itself to the world by means of nurses dancing around the NHS logo. Anniversary celebrations have got bigger, but also more personal, and since 2008 have emphasised the small, everyday stories of patients and staff living and working in this huge institution, stories such as that of Aneira Thomas – said to be the first child born in the NHS, at one minute after midnight on 5 July 1948, in Amman Valley Hospital, Carmarthenshire, and named after Aneurin Bevan himself.

ABOVE
The 1954 comedy film *Doctor in the House*, starring Dirk Bogarde (centre) as a hospital medical student

LIVING WITH TECHNOLOGY

Over its 75 years, the NHS has seen developments in medical technology that could hardly have been imagined in 1948. Healthcare has become enormously reliant on it: the effects in terms of preserving and prolonging human life are incalculable; its impact on all aspects of the operation of the service, including ancillary

ABOVE AND LEFT
The tribute to the NHS, in which hundreds of real nurses took part, at the London 2012 Olympic opening ceremony


MOBILE DIPHTHERIA
IMMUNISATION UNIT
CTP
325

"The adoption of extraordinary new technologies is integral to the story of the NHS. But innovation has always been combined with improvisation, of making huge advances in science work with the resources available"

care, ethics and economics, are just as important and continue to transform it. The adoption of extraordinary new technologies is integral to the story of the NHS. But innovation has always been combined with improvisation, of making huge advances in science work with the resources available; and has always been dependent on the commitment and creativity of those involved.

The interviews conducted by the NHS at 70 project across the UK, extended to cover the Covid-19 epidemic to form the Voices of Our NHS collection, provide many examples of this. In the early years of the NHS, a large amount of resources went into radiography. One interviewee, Ethel Armstrong MBE, qualified as a junior radiographer in 1951 and worked at the Queen Elizabeth Hospital in Gateshead, northeast England. Much of her work involved the diagnosis of pulmonary diseases: the coal-mining and heavy industry of the area resulted in high rates of pneumoconiosis, and tuberculosis was still endemic in the UK. The geography of such diseases – with pneumoconiosis sufferers dispersed throughout largely rural coalfields, and TB sanatoria usually sited out of towns – necessitated the development of mobile screening units. Ethel recalled how "whole families were admitted to sanatoriums way out in the wilds. You staffed those with two juniors and you. You were a totally self-sufficient unit. They all had to have routine chest X-rays. If one in the household was picked up with tuberculosis, then the wife had to be screened, the children had to be screened."

Later on, in Liverpool in the 1980s, Ethel used her experience in the North East to work on early models of mobile breast-screening vans. Developing the pilot projects involved a large degree of improvisation, and Ethel often found her team relying on their own initiative. Many women with breast cancer were not diagnosed until it was too late: "Many times I thought, 'I wish I could have seen this woman a lot quicker than I'm getting her. I wish there'd been some means of seeing what was going on because she's got a history, a family history of breast cancer that would knock you sideways'. But there was no facility for picking up these people because there's no screening programme for them."

A national screening programme was thought to be prohibitively expensive. On her first day on the project, Ethel received a call from the supervising professor, Professor Whitehouse, asking her to meet him at the Littlewoods department store garage. On one side of the garage, she saw "all these big, lovely, shiny wagons" – Littlewoods' own vehicles. In the corner was an old chest X-ray van: "It looked like a reject from the wars. When I looked inside, it was just an empty shell with a cab on the front." Using old and donated equipment like this, explained Whitehouse, they could overcome the objection that mobile breast screening would cost a fortune, and could prove that "we can pick up early breast cancers and give these women a better chance". The success of pilot projects such as this led to the nationwide adoption of mobile breast screening services.

Developments in intensive care have been particularly dependent on technological change. When modern intensive care medicine began to arrive in the 1960s, early adopters often had to proceed through improvisation, experiment and learning on the job. Dr David Morrison, from Crumpsall Hospital in Manchester (now North

OPPOSITE
An NHS mobile diphtheria immunisation unit at work in Portsmouth in 1951

ABOVE
Radiography equipment is used in Glasgow in 1957 to screen the public for tuberculosis

Manchester General), was one such pioneer: "Around 1965, we decided we'd have to have some form of intensive care unit. We were trying to do this on ordinary wards with ordinary nurses and it was obviously impossible. I went to the medical superintendent, 'Look, we need to build some sort of a unit'. 'Well, if you can find a room you can have it, but the place is full'. So we found a room. He said, 'You can't have any money'. So we 'stole' all the equipment from other departments... We had a tin of white paint, and everything we stole we used to paint white overnight and then paint 'I.C.U.' in large black letters on it and it was ours. It was great fun. That way we built up a two-bedded unit to learn a trade on. We had to teach nurses. We had to teach ourselves. We didn't know what we were doing."

As intensive and acute medicine began to penetrate more effectively into hospitals' everyday operation, Dr Morrison focused on coronary medicine, and his own passionately pursued project of improving outcomes for heart attack victims. Again, improvisation was key. "There were five hospitals in the Manchester group. Everybody said they wanted an ICU. That was obviously impossible. We couldn't afford it. The only answer was to find a way of getting people to the unit safely and swiftly, so I built an ambulance and we used to go and fetch the patients. We got a Volvo estate car. We turned the front passenger seat the wrong way round so that the stretcher went into the doctor's lap, sitting in a reverse seat, and he could intubate. The cutaway back seat had the nurse in it and on the back of the driver's seat was a fixed case with all the drugs, syringes and needles in it. Behind the nurse was the defibrillator, ECG, etc. The only thing we couldn't do sitting down was cardiac massage, so we bought a pump and I worked out that we could alter the design so it would sit in a gantry and be swung over the patient. Every fifth pump it blew as a ventilator, so it was another pair of hands."

WOMEN IN THE NHS

Most of the NHS labour force, even from its beginning, has consisted of women. Of the 1.3 million staff working in the NHS in 2021, 76.7 per cent were female. But over the course of its existence there has been considerable change in the kinds of jobs done by them, how those jobs are structured, and how their professional power is exercised. For many, the advent of a national health service presented the opportunity for training, secure employment and social mobility that might otherwise have been denied them as a result of their class and gender.

When the radiographer Ethel Armstrong, born in the Durham coalfield in 1930, was growing up opportunities for women from her background were few. "I was quite bright and got a grammar school place. I was desperate to do dentistry or medicine," she told the NHS at 70 project. "But in those days, if your parents couldn't keep you for six years till you qualified, there was no way that you could do either of those because there was no grants.

RIGHT
Nurses at Trafford General Hospital, Manchester, model uniforms from each decade of the NHS, from the 1940s to today

"Many of the women moving into traditionally male professional arenas of medicine and management were both products of the struggle for women's rights and active in taking that struggle further"

I had a wonderful headmaster, Mr Carr, who said, 'You've got every qualification to get you into any university, Ethel, but I'm afraid the two state scholarships will go to two boys' ... The state scholarships went to the boys because it was always assumed that they would stay in their career till the day that they retired. So, in 1947, the headmaster said, 'I can get you a place in healthcare because there's something going to happen. It's on the cards for a year's time ... Even if you can't do medicine, it will at least partly fulfil what the rest of your life is going to be about'." Even where opportunities existed, gender hierarchies were still enforced. When Ethel qualified as a junior radiographer, her Scottish superintendent told her, she says, that her "'first and most important duty ... is that your chief's coat is always clean, straight from the laundry, well-aired on the radiator and has every button put in. You have to unstarch his sleeves and do remember to unstarch each pocket, particularly the one where he keeps his pens'." Across much of the NHS, a firm gender division persisted: nurses were overwhelmingly women, while doctors, consultants and surgeons were overwhelmingly male.

In the NHS's early decades, nursing was considered less a job than a vocation, as all-encompassing as joining the armed forces or a religious order. Sylvia Newman, who started her nursing training in 1949, described the carefully regimented hierarchy of the wards: "The nursing hierarchy consisted of the matron, the assistant matron and the home sister. There was one ward sister per ward, and she had senior staff nurses. We did have probationer nurses, perhaps three or four, in training. Then there were the domestic staff. Ward cleaners who did the floors, sweeping and that kind of thing. The ward maids, they did things like clean the lockers and wash the beds and served the meals." Trainee nurses were expected to live together in nurses' quarters, keep to quasi-military standards of dress, cleanliness and comportment. Strict standards of behaviour – both inside and outside the workplace – were enforced. The figure of the ward sister or matron looms large in older nurses' memories – sometimes as a friend and protector, sometimes as a figure of terror, and almost always as a monitory presence whose word was law.

However great the obstacles, the proportion of women working in more senior roles continued to grow. By the mid-1970s, around one in four doctors was a women, although they continued to be easier to find in areas of healthcare that allowed part-time work. Many female doctors co-ran GP surgeries with their husbands. In other areas, such as surgery, women continued to be dramatically underrepresented. Dr Janice Fazackerley, a consultant anaesthetist, began medical school in the mid-1970s, and while the medical profession was certainly opening up more to women, she still found herself very much in the minority, one of four women among 16 students. Aware of being in a minority, she said it was a challenge: "I always felt I had something to keep up, something to prove. But I didn't feel threatened by it."

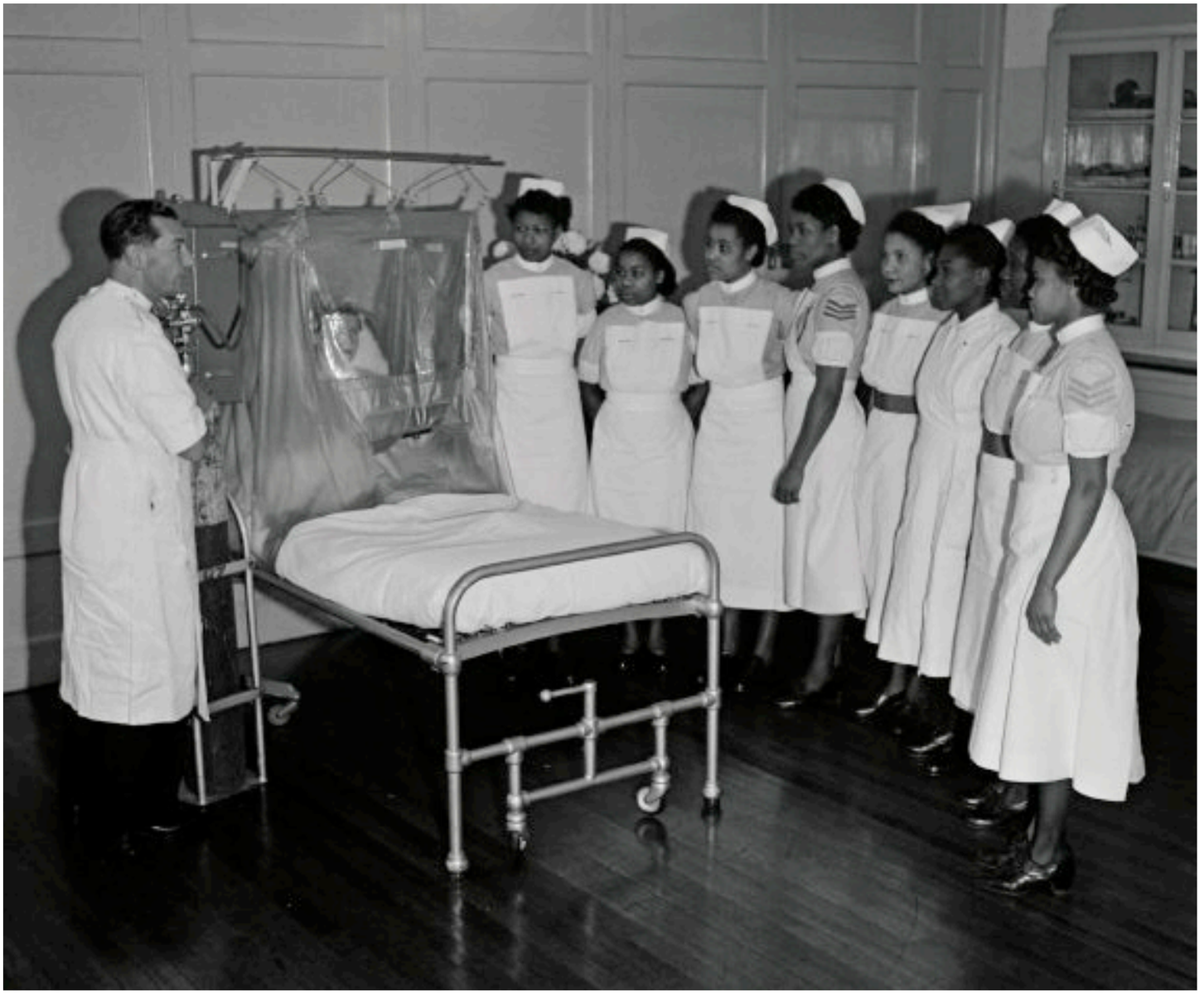
Many of the women moving into traditionally male professional arenas of medicine and management were both products of the struggle for women's rights in the post-war era and active in taking that struggle further. Female medical professionals, nurses, and healthcare administrators and policymakers were often instrumental

ABOVE
Amanda Pritchard, CEO of NHS England since 2021. Among other roles, she was the first female chief executive of Guy's and St Thomas' NHS Foundation Trust

TOP LEFT
Different generations of nurses on their rest break at Montague Hospital, South Yorkshire, in 1968

TOP RIGHT
A class of student nurses at the School of Nursing, St Bartholomew's Hospital, London, in 1968

LEFT
Sister Shirley Bragg at University College Hospital, London, in 1965. She was awarded an MBE for evacuting patients from a ward with falling masonry



in changing medical practice and, where necessary, the law, as it related to women. Sonya Baksi qualified as a doctor in the early 1960s and found herself on the frontline of the struggle for women's control of their own fertility: "This is 1963, '64. I finished [dealing with the consequences of] 100 illegal abortions in six months. Abortion was illegal. Women went to backstreet people who would start them bleeding and then they would arrive bleeding on your doorstep. My consultant was Catholic, and she wouldn't work with them. I had to use the registrar and sometimes I was on my own. And it was terrifying. I remember a Finnish or Swedish au pair girl. The anaesthetist saying to me, 'Sonya, I've already given six pints of blood, you've got to stop her bleeding'. You don't forget these things." Sonya went on to campaign for the legalisation of abortion and to work extensively to increase women's access to, and understanding of, birth control.

As the NHS reaches its 75th anniversary, the old gendered division of labour no longer obtains. By 2018, almost half of all doctors on the General Medical Council register, and 57 per cent of students under 30, were female. Although women are now represented at all levels of the NHS, they continue to be underrepresented in areas such as surgery and management, and a significant overall pay gap remains. There is plenty of work still to be done.

COMING TO WORK IN THE NHS

Migration has always been very important in the story of the NHS. Over the past 75 years, people have come from over 200 countries to work for the service, and the

ABOVE
Nurses recruited from Commonwealth nations receive instructions on the use of an oxygen tent at Hackney Hospital, London, in 1953

effects have been far-reaching: NHS recruitment from overseas has helped to reshape British society and the nature of its relationships with other parts of the world, from former British colonies to Eastern Europe and Latin America. The first generation of NHS staff from overseas was the wave of medical professionals that arrived as refugees from the Second World War and its aftermath. In 1957, a survey found that 12 per cent of doctors had been trained overseas, Jewish and Central European emigrants comprising a large proportion of them. Many of them were clinicians and doctors, and their intellectual contributions to areas such as surgery and psychiatric care would enrich and transform the practice of medicine within the NHS.

A second group came from the Commonwealth. At the time of the NHS's creation, post-war Britain was facing a severe labour shortage. Many of the migrants encouraged to arrive from the Commonwealth – the Windrush Generation – went into healthcare work. The expansion of the service in the 1950s and 1960s would have been impossible without the recruitment of large numbers of Caribbean nurses. By 1968, a third of the NHS's nurses and midwives had been recruited from the Commonwealth. One of them, Tryphena Anderson, was born in Jamaica in 1933 and came to England in the1950s. Interviewed for the NHS at 70 project, she recalled, "People came out to Jamaica. Winston Churchill, the Prime Minister, and Enoch

ABOVE
Assistant nurse Una Leacock, from Ghana, makes up a prescription at East Hertfordshire Hospital in 1960

LEFT
Matron Vera Darley (centre), with staff from 34 different countries who worked at Claybury Hospital, Essex, in 1964

Powell said there were jobs waiting. It was like an invitation. England was recruiting especially for nurses in the West Indies … When the invitation was put out, parents who had a piece of land, or who had a bit of money, or some timber that could be sold, they were willing to sacrifice this for one person or more to go to England, have a proper profession, or work in industry. At the same time, you're committed to sending money back home because your fare has to be paid for so somebody else could come."

If a third of all nurses in 1968 came from the Commonwealth, half of all doctors below the rank of consultant had been born abroad, often in South Asia. Raj Menon arrived from medical training in Singapore, in the 1970s: "I applied for a clinical attachment in Leeds, St James's Hospital. I took a charter flight with money I borrowed from my eldest brother. It was the first time I wore a suit. I landed in Gatwick Airport at 2am. I didn't know anyone. But there was someone there from the British Council: 'Look, I need to get to Leeds'. I arrived in Leeds on 16 August 1974. I booked a room in the YMCA in Leeds, in Chapel Allerton. My bag was full of medical books, very few clothes. I asked the warden how to get to St James's Hospital. I took a bus as instructed. She told me to get down at a public house called Dock Green. And I didn't know what a public house was!"

The experience of these generations of migrants was often difficult: they faced lasting racism and discrimination both in society at large and within the NHS itself, where – besides dealing with the prejudices of colleagues and patients – they often found their professional advancement limited. Carol Baxter arrived from Jamaica to start nursing training in 1970: "When we went on the wards, that's when I began to really realise some of the inequalities… When the list came for specialisms, all the white girls were given obstetrics and all the black girls were given geriatrics. That seemed to me a signal that something's wrong. I asked the tutor about it, innocently: 'Did I remember you saying that if you ask early, you would get your specialism, and I was the first to ask?' She denied it … Old patients [were often] confused. They would say, 'Take your filthy black hands off me'. You'd look to your nurse friend but they would say they didn't see it, didn't hear it, or denied it. Or they would say, 'Oh, come on, grow up, and don't be so sensitive'."

However, while life could be difficult, the NHS's structures of training and professional association, and the sheer scale of recruitment from some places, allowed migrant employees to find some of the comforts of home and community. In Whipps Cross Hospital, then in Essex, in the 1960s, trainee nurses arriving from Ireland would find themselves learning their trade under an Irish matron, living in nursing accommodation populated almost entirely by other young Irish women, worshipping in the hospital chapel at Catholic services set up by the chaplain to cater to them, and socialising in the famous Irish dance halls of Tottenham and Kilburn.

Since the millennium, many of the NHS's new arrivals have come from India, the Philippines, Africa, Latin America, and Central and Eastern Europe. Dennis Singson arrived in the UK in 1999, having been recruited in the Phillippines by an agency contracted to the NHS: "I arrived on a cold, grey, rainy morning … There were four of us guys in one house, two small double bedrooms. We didn't even have a bedside table because there's no space for it. We did have a garden, but it was always raining. It was so funny, all the linens and all the towels in the house had 'NHS Property' printed on them. I thought, if the neighbours didn't know that we just arrived in the country, they probably would have thought we stole everything from the NHS, because everything in there was from the NHS, even the kettles!" Dennis later set up a network for black

ABOVE
A nurse photographed in 1965, having completed her Royal College of Nursing training

"The Covid-19 pandemic tested the limits of what the service was capable of, challenging its staff in unprecedented ways"

and minority ethnic healthcare staff, to help work towards greater equity in the NHS. This is how he describes that work: "I saw the need for it. We need more than equality within organisations, we need equity... People are saying equality is looking after people, regardless of age, race, sex. That's so basic. That's so passé. We need the equity. We need to be seeing people differently... There's still a lot of issues. I mean, white people don't see it. But we do, I do."

THE COVID CRISIS AND THE NHS

By its 70th anniversary the NHS had weathered many storms, many of which had helped to mould and change it. But the Covid-19 pandemic, arriving not long afterwards, was the most difficult of all to date. It tested the limits of what the service was capable of, challenging its staff in unprecedented ways. Histories of the pandemic are beginning to be written, though its full magnitude is still only slowly becoming apparent.

Between the first recorded death in Wuhan, China, in early January 2020 and the announcement of the first nationwide lockdown on 23 March that year, there was an increasing realisation in policy and planning circles that the UK would soon be facing a major pandemic, and healthcare trusts and national networks began to formulate an urgent response. Across the NHS, staff scrambled to redirect resources, develop new protocols, source the technology and equipment their hospitals would need, and plan not just for the unknown contingencies of such an unprecedented event, but for the continuation of its normal job of non-Covid care.

ABOVE
A swab is taken at a Covid-19 drive-through testing station for NHS staff, in March 2020


A BIG THANK
YOU TO OUR
NHS

OPPOSITE
A family applauds the health service as part of the weekly "Clap for Our Carers" event during the pandemic, in May 2020

ABOVE
"Thank You" flags strung across Regent Street in the West End, in honour of the NHS's dedication in the fight against Covid-19

LEFT
Professor Neil Watson, who headed the Covid-19 vaccination programme, pictured in the NHS Nightingale Hospital North East, in Sunderland. It opened in May 2020, but never admitted patients

BELOW
Inside St Thomas' Hospital, London, during the pandemic's first nationwide lockdown

The most obvious and spectacular response was the construction of the Nightingale hospitals. In stadiums, business parks, conference centres and brownfield sites across the country, an immense logistical effort created seven new hospitals dedicated specially to acute care for patients with Covid-19, with other field hospitals opening around the country. In the end, the expansion of acute care capacity within hospitals, and the relative success of lockdown policies, meant that for the most part the Nightingales were not needed to fulfil their original role: several were repurposed as testing stations and, later, vaccination centres. Nevertheless, coping with the exponential increase in patients with Covid-19 required an enormous organisational effort and a great deal of improvisation. Thousands of clinical staff were retrained in intensive care medicine to cope with the expected influx of patients; personal protective equipment was sourced from an improbable variety of contexts; suddenly, the procedures of intensive care medicine were entering everyday language, just as those procedures were themselves being adapted to deal with unprecedented demand and the infection profile of a disease that we were still only just learning about on a day-by-day basis.

Amit Pawa, a consultant anaesthetist at Guy's and St Thomas' NHS Foundation Trust, recalled this scramble

to adapt when talking to the Voices of Our NHS project: "Elective lists were scaled down. Outpatients were scaled down. We got new terms introduced into our vocabulary. Donning, doffing, aerosol generating procedures or AGPs, which initially was a bit scary because I had no idea what they were talking about. But we had a crack team of people who were designing action cards. These involved breaking down every step of procedures that we do every day, and also procedures that we were going to start doing, into a stepwise manner. Even things as simple as cannulating a patient with full personal protective equipment on was going to be different. I discovered that it's quite difficult to listen to a patient's heart with the stethoscope when you're wearing a full visor and face mask."

The new conditions of the pandemic also changed how staff dealt with patients, their families and loved ones. For many of those caring for patients with Covid-19, these issues were among the most painful of the pandemic. Facilitating communication between patients and their loved ones, managing visits and making decisions around withdrawal of care are among the most fraught and challenging parts of intensive care and acute medicine, and now all of these processes had to be changed beyond recognition.

By the summer of 2020, hospitals had secured and organised the use of iPads, for example, so that patients could communicate remotely with their families. Staff did their best to manage the distress and need for information of patients' loved ones, despite the removal of many of the usual procedures for doing so. One intensive care doctor reported, "I think one of the hardest things is because of visiting restrictions we don't have many families in the hospital, and we have to speak by phone … It's something that we are finding difficult, that families are finding difficult. You don't know where they are, you don't know who else is in the room." When his hospital began to admit family visits, these visits were often drastically limited, even when it was understood that the patient was dying: "Our nurses have been incredibly good, and when the families [have to] leave they will go in and hold the

ABOVE
A hospital chaplain helps a patient communicate with his family using an iPad due to Covid-19 visiting restrictions

LEFT
Full PPE is worn by a clinician while working in an intensive care unit at the height of the pandemic

"While the experience of the pandemic was one of shared endeavour, camaraderie and selflessness, it also tested the NHS's strength and morale to the limit"

patient's hand. So that when the patient does pass away, they can say to the families, you know, 'I was holding his hand at the end'."

For many staff, especially those in hospitals or on the so-called frontline, the experience of working through the pandemic was partly surreal. While the rest of society adapted to lockdowns, they were the essential workers who kept things moving. They often felt there was a gap between them and those in their lives who were not on the frontline: many people had to segregate themselves from their families, often within the same house, or make uncomfortable trade-offs of risk regarding themselves and their loved ones. Archie Findlay, a porter at Guy's and St Thomas', spent the first lockdown in a hotel. Interviewed in May 2020 for the Voices of Our NHS project, he said, "I'm out of the hotel by nine o'clock – not that I need to be here at nine, because my shift hasn't started. Once I wake up and have breakfast, I come over here because over the last seven weeks this has been my family, you know ... The lockdown, you can't go nowhere, and you're in this room all by yourself. My daughter, my granddaughter, that is the most heartbreaking thing ... my three-year-old granddaughter and my seven-year-old grandson, they want to run and come and hug me, and I have to stop them, 'No, you can't'. I walk away with tears in my eye."

The effects of Covid-19 on the ordinary business of healthcare were, and continue to be, severe. The postponement of in-person check-ups, GP appointments and routine scans resulted in many illnesses failing to be detected in their early stages; and the postponement of elective and non-essential surgery has built up its own cascading backlog for many staff working in theatres and managing the conditions of those in their care. Meanwhile, in public health, mental-health care and the care system, the more diffuse effects of Covid-19 and lockdowns are still, perhaps, only beginning to be felt. Many NHS staff, having worked with dedication and courage throughout the worst stages of the pandemic, have reported experiencing burnout and exhaustion in its aftermath, deepening the pre-existing staffing crisis. Many caught Covid-19 themselves, and for some the effects of long Covid have been severe.

The story of Covid-19 is unfinished, however. The pandemic is not over, with new strains still emerging. Its aftereffects will reverberate for years and bear on the future of the NHS. In many ways, the story is one of immense pride, sacrifice and care. The NHS's staff worked heroic hours, in unbelievably difficult conditions, and carried on through exhaustion, danger and the loss of colleagues and loved ones. A vaccine was developed, tested and rolled out in record time; hospitals were built from scratch; almost every single corner of the service was reorganised on the fly to meet a challenge of a scale and suddenness that no one could predict. But while the experience of the pandemic was one of shared endeavour, camaraderie and selflessness, it also tested the NHS's strength and morale to the limit. While many staff recall their gratitude at the national Thursday night clap for their efforts, many also report feeling unsupported and alone, and resenting being

BELOW
Physiotherapy staff at Royal Papworth Hospital, Cambridge, help a patient recovering from Covid-19 to walk, in January 2021

portrayed as “superheroes” and “angels” when their jobs – as professionals and ordinary humans – required adequate support, safety and pay. As the long aftermath of Covid-19 plays out, it has left the NHS at a crossroads. On the one hand, it is perhaps as loved and valued as it has ever been; on the other, its future has rarely looked less secure.

Alice Wiseman, Director of Public Health at Gateshead Council, in the North East, believes the pandemic has exposed how health, and the healthcare system, is woven into the fabric of communal life. She told the Voices of Our NHS: “My little brother said to me a few years ago, ‘How big is your “us”? And is your us just about me and my immediate family? Or is your us about me and my community, me and my region, me and my country, me and the world?’ With infectious disease, there’s no point in having a small us. No point in me sitting and worrying about me and my teenager, because the only way that I can protect us is by caring about my community. The only way I can protect my community is by caring about my region and my country, and ultimately the world. Infectious disease teaches us a lot about how we do have to care … that we need to meet each other’s needs in different ways.”

ABOVE
A sign of support for the NHS “Heroes” during lockdown in Glasgow

LEFT
A silent protest by doctors outside No 10 Downing Street in 2020

CHAPTER 7

MEDICAL AND MANAGEMENT SERVICES

AT THE NATION'S SERVICE

THE BRITISH MEDICAL ASSOCIATION WAS A SIGNIFICANT VOICE IN THE DISCUSSIONS AROUND, AND FINAL FORGING OF, A COMPREHENSIVE NATIONAL HEALTH SERVICE

The stated aim of the British Medical Association (BMA) is "to promote the medical and allied sciences, and to maintain the honour and interests of the medical profession". A trade union and professional body for doctors in the UK, it was founded in 1856 and can trace its origins back to the Provincial Medical Surgical Association, which was established in 1832, and to the "British Medical Association", an earlier entity that was set up in 1836.

The BMA played a major part in the drafting and passing of the Medical Act 1858, before which anyone could practice as a doctor, whether qualified or not – a role that led to its further involvement in medical campaigns and political issues. Headquartered in London's Tavistock Square since 1925, the association published proposals for "A Social Medical Service for the Nation" four years after moving into its new premises. The following year, the Representative Body of the BMA submitted a series of proposals for this service to interested public bodies, requesting comments, criticisms and suggestions.

A revised BMA report was issued endorsing four main principles: the medical service should aim to achieve positive health and disease prevention; every individual should enjoy the services of a family doctor of their choice; consultants, specialists, laboratory services and auxiliary services together with institutional provision should be available to the individual; and the various parts of the medical services should be co-ordinated and developed by a national health policy.

The report also recommended that the National Health Insurance scheme be extended to cover families of those insured and to include hospital and specialist treatment. It favoured regional organisation, each region being based on a teaching hospital, and called for co-ordination of maternity services, pay beds, fracture and rehabilitation services and A&E departments. This important document advocated the need for an integrated national policy on health.

In 1933, the BMA Council published an address on the essentials of a national medical service, and in 1940 it set up a planning commission to study the effects of wartime developments on medical services. An interim report published in 1942 proposed a comprehensive medical service and advocated a basic salary, a capitation fee and fees in respect of GP services, and salaried senior hospital staff, whole or part time, with freedom to undertake private practice. It also questioned whether the service should provide for the whole community or only part of it. This question was fiercely debated and the Annual Representative Meeting later that year resolved by 94 to 92 votes that the government should provide for the whole community.

CONFLICTING INTERESTS

Published that same year, the Beveridge Report called for similar provisions for healthcare but also stated, "the possible scope for private practice will be so restricted that it may not be worthwhile to preserve it". Such statements caused the BMA much unease. The Minister of Health, Ernest Brown, invited representatives of the medical profession to meet him in 1943 to consider his suggestions on the way forward.

A joint meeting of the BMA's Representative Body and the Panel Conference agreed to enter into discussions, although doctors were suspicious of what they saw as the introduction of a whole-time service. A Labour Party pamphlet in 1943, entitled "A National Service for Health", stated it was, "necessary that the medical profession be organised as a national, full-time, salaried and pensionable service". The discussions reflected an atmosphere of deepening mistrust.

The coalition government published a White Paper in February 1944, proposing a salaried service controlled by local authorities, but also stating some general principles: everyone should benefit from the best, free medical service; there would be no compulsion either for patient or doctor; and the doctor must not be subject to outside clinical interference. Consultants would be salaried, either whole or part time. Health centres were to be supported and GPs encouraged to work in them.

The BMA Council issued copies of the White Paper to all doctors and appointed a national negotiating

OPPOSITE
The BMA's impressive headquarters in Tavistock Square, London


:BRITISH·MEDICAL:ASSOCIATION:
BRITISH MEDICAL ASSOCIATION
BMA HOUSE
BRITISH MEDICAL ASSOCIATION
BMA HOUSE

ABOVE
A special representative meeting of the BMA in London, in 1948

OPPOSITE
Ballot papers are sorted in the BMA's second plebiscite, in 1948

"Doctors were suspicious of what they saw as the introduction of a whole-time service"

committee, which continued from May 1944 to the launch of the NHS in July 1948. The suggestion that GPs working in health centres should be salaried was vigorously opposed. Following further negotiation, the government agreed to drop any mention of a contract of employment with a local authority for GPs in health centres, direction by the Central Medical Board, or control of the medical profession by local authorities.

NEGOTIATIONS UNDER LABOUR

Negotiations with the coalition government were nearing agreement when the Labour Party swept into power in June 1945. Aneurin Bevan was appointed Minister of Health. Bevan produced a new White Paper and introduced the National Health Service Bill. The service would be available to all, financed by the Exchequer. Existing premises and equipment would be transferred to the minister, with authority to authorise separate pay beds, in which part-time specialists could treat private patients. Health centres would be established, with remuneration a combination of salary and capitation fees.

The doctors' negotiating committee pronounced its own seven principles: there would be no full-time salaried service and no state interference; patient and doctor should be free to decide whether to take part in the service; doctors had freedom of choice over the form and place of practice without direction; every registered GP had the right to participate in the public service; the proposed hospital service would be centred on the universities: doctors would have adequate representation on all associated administrative bodies. A further Annual Representative Meeting was held in May 1946, when the main BMA criticisms were voiced. Government proposals to abolish the buying and selling of practice goodwill, basic salaries and the control of distribution of doctors were sticking points as these could lead to a whole-time salaried service. A BMA plebiscite in November 1946 was divided.

THE FINAL MILE

The BMA and the Ministry of Health entered into discussions, which continued throughout 1947. The BMA

rejected the bill in a second plebiscite in January 1948, and called for changes to be made in the NHS Acts of 1946 and 1947 to maintain the integrity of medicine and prevent doctors from being turned into state servants.

On 7 April 1948, Aneurin Bevan undertook in the Commons to make clear by statute that a whole-time service would not be brought in. He offered modifications of his proposals for a universal basic salary and expressed his wish to discuss these matters with the profession. This gesture of conciliation met two of the principal BMA objections. Following a third plebiscite and a BMA Council meeting on 5 May 1948 it was then recommended that the profession should resume negotiations.

Two months later to the day, the NHS was born – a scheme that shared much with the "Social Medical Service" that the BMA proposed in 1930.

INVESTING IN GLOBAL HEALTH

AS A WORLD HEALTH ORGANISATION REPORT ASSERTS, THE CHALLENGES FACING THE FUTURE OF NURSING NEED TO BE MET ON A NATIONAL AND INTERNATIONAL SCALE

The World Health Organisation (WHO) produced its comprehensive *State of the World's Nursing 2020* report at a time when the eyes of the world were keenly focused on healthcare and the frontline nursing community in particular. Published to coincide with the International Year of the Nurse and Midwife, the report also came out in the aftermath of the outbreak of Covid-19, when health services were being tested to their limits.

While celebrating the achievements of the profession around the globe, the report also highlighted how opportunities for advanced nursing education and enhanced professional roles, including at policy level, could drive improvements in population health. It also addressed the inequalities in the distribution of nurses around the world – an issue that, three years on, continues to challenge the global industry.

"Leaders must come to fully understand the impact of the decisions for fair pay and fair working conditions for nurses and midwives," says Amelia Latu Afuhaamango Tuipulotu, the WHO's Chief Nursing Officer, in an interview with *Nursing Times*. "If the profession feels undervalued, disrespected – historically and after the pandemic – how will that impact the nurses themselves, their confidence and the way they value their work? We really have to see the whole picture, the ripple impact of decisions we make."

One of those ripples that has become a major issue in nursing is the increasing reliance on the recruitment of overseas staff to plug gaps in the workforce. "International recruitment has been really challenging, particularly after the emergency phase of the pandemic," says Tuipulotu.

At present, the WHO has a "red list" of 55 countries that are facing pressing workforce shortages and should not be targeted, therefore, for systematic recruitment by international employers. As Tuipulotu points out, some regions may only have a single nurse or midwife for a population of as many as 1,000 people, risking a stark gap in healthcare services should that individual be drawn away. "It just means a lack of access to care for the vulnerable population," she explains.

"If our actions are unethical, which may solve a short-term problem for now, it will not be the best solution for us in the long term. It's always very important that we look at a situation, map it out carefully, see the potential impact on the population of our decisions and our actions – and I think we will come up with the right solutions and strategies."

That could mean encouraging high-income countries to invest back into the regions from which they are sourcing staff, to help support and sustain their domestic workforce. But, as she points out, every country needs to

BELOW AND OPPOSITE
Nurses were at the forefront of the emergency response to Covid-19, in the UK and around the world

commit to the future of its nursing workforce. "Investment must be done globally, everywhere around the world. We must be able to do it together as one team. The whole world must work together in solidarity."

It's a challenge that Sheila Sobrany, President of the Royal College of Nursing (RCN), also recognises and is eager to address. "I chair the RCN's International Committee and of the many things that have come up recently, the most important is the UK's overreliance on recruitment of internationally educated nurses due to staffing shortages.

"This is of great concern to me because some of the countries recruited from are on the red list indicating they have a shortage of nurses. If we're recruiting from outside the UK, this must be done ethically, and we must make sure those nurses are supported. Their prior skills, knowledge and experience must be acknowledged."

Indeed, the origins of the NHS are themselves rooted in the recruitment and training of new arrivals to the UK, as Sobrany observes. "Seventy five years of the NHS also means 75 years since people came from the Caribbean on the HMT *Empire Windrush* to help build the newly formed health service," she says. "Despite facing overt racism and discrimination, these first NHS workers became a foundational part of our health service. Today the NHS relies on the vital contribution of migrant workers and as we mark the 75th anniversary of the Windrush generation I want to renew my commitment to striving for equality, inclusion and belonging for all nursing staff."

A LEGACY OF EYE CARE

AT THE CUTTING EDGE OF OPHTHALMOLOGY FOR DECADES, ALCON SUPPORTS THE NHS WITH INNOVATIVE PRODUCTS, SERVICES AND SPECIALISED TRAINING

Alcon is the global leader in eye care, dedicated to helping people see brilliantly. With a heritage spanning more than 75 years, it is the largest eye-care device company in the world and has complementary businesses in Surgical and Vision Care. A truly global company, it operates in 60 countries and serves patients in more than 140.

With a long history of industry firsts, each year Alcon commits a substantial amount to research and development to meet customer needs and patient demands. “We are honoured to support NHS eye surgeons to perform life-changing surgery for cataracts, refractive errors and vitreoretinal conditions,” says Mike Turner, Country Manager of Alcon UK and Ireland. “We are pioneers in eye care and are committed to being among the market leaders in research and development investment as this is the foundation for how we improve people’s lives.”

Alcon is an important partner for the NHS in ophthalmology. Its support extends beyond products to training, efficiency, capacity and sustainability services – all with the aim to drive better outcomes for patients.

Alcon offers surgeons world-class training and education through the Alcon Experience Academy, a robust online training programme, and Alcon Experience Centres, which are physical state-of-the-art training facilities located worldwide. In Cork, Ireland, the Alcon Customer Engagement Centre provides eye care professionals with the opportunity to have a complete customer brand experience by combining training and education with manufacturing, research and development. Meanwhile, the experimental wet lab at Alcon’s UK and Ireland headquarters in Surrey offers hands-on training with the company’s latest technologies.

“We support surgeons – from young surgeons early in their career through to the most experienced surgeons – with continuous training and education on new techniques,” says Emily Paynton, Head of Market Access and Value-based Solutions for Alcon UK and Ireland.

In addition to training and education, Alcon partners with the NHS to promote


ALCON PR
"Ask Your Physician First"
ALCON
PRESC IPTION
LABORATORY
"DRIVE UP WINDOW SERVICE"
Alcon
PRESCRIPTIONS
TRIANGLE
LIQUORS
ESCRIPTIONS
2628


Alcon
Alcon
ENTRA

excellence in eye care through clinical evidence, finding innovative ways to increase hospital capacity and support efforts in sustainability. “Every trust has different challenges that they are trying to overcome so we work with the NHS to support them on a trust by trust basis. For example, we provided a managed service capacity solution for one site, but in another hospital they might want to improve efficiency differently,” says Paynton. “There’s no single solution, but with our expertise and experience we can support the NHS. We do this by using data – and there is plenty of this from the NHS and other sources.”

Committed to clinical studies and real-world data collection, Alcon has a partnership agreement with The Royal College of Ophthalmologists, whose National Ophthalmology Database audit specifically addresses research questions on product performance and factors contributing to best outcomes in cataract surgery to avoid secondary procedures. Its publication focused on cataract surgery outcomes, notably a study of post-cataract posterior capsule opacification (PCO) – PCO is the most common complication of cataract surgery and can result in reduced visual acuity, impaired contrast sensitivity and glare disability, which can require additional procedures. More than 600,000 operations from 58 centres were analysed. Comparative data on one-, three- and five-year PCO rates were published so that clinicians could identify whether implanted intraocular lenses or other modifiable risk factors impact PCO rates, offering substantial benefits to patients.

To help increase surgical capacity, Alcon piloted a programme with an NHS trust by designing and constructing a mobile clinic – a theatre for cataract operations designed with the assistance of NHS consultants and built inside a mobile module. The module was driven to Stoke Mandeville Hospital in Buckinghamshire, where the ophthalmology team was then able to carry out up to 12 additional cataract procedures per day, helping between 150 and 200 people each month regain their vision. In addition, Alcon’s managed service supplies and maintains the unit space and ensures that the correct lens and consumables are in place for each procedure – allowing the medical team to focus on providing the best patient care.

“We are committed to being among the market leaders in research and development investment”

To further efforts in sustainability, Alcon has partnered with the Newcastle upon Tyne Hospitals NHS Foundation Trust to pilot carbon-neutral cataract surgery – a first in the industry. Both Alcon and Newcastle Hospitals share a common goal, which is to protect the planet by conserving natural resources, implementing energy efficiency programmes and reducing the overall carbon footprint.

At Newcastle Hospital’s Royal Victoria Infirmary, consultant eye surgeon Sandro Di Simplicio was honoured and delighted to have been the first surgeon to perform a carbon-neutral cataract surgery, later planting trees at a local school with the first patient, Nora Blackett. “I strive to give all my patients the gift of sight and I am now pleased to say I can do it without any impact on future generations,” says DI Simplicio. “Together, we are making a difference for our patients, our local community and, ultimately, our planet.”

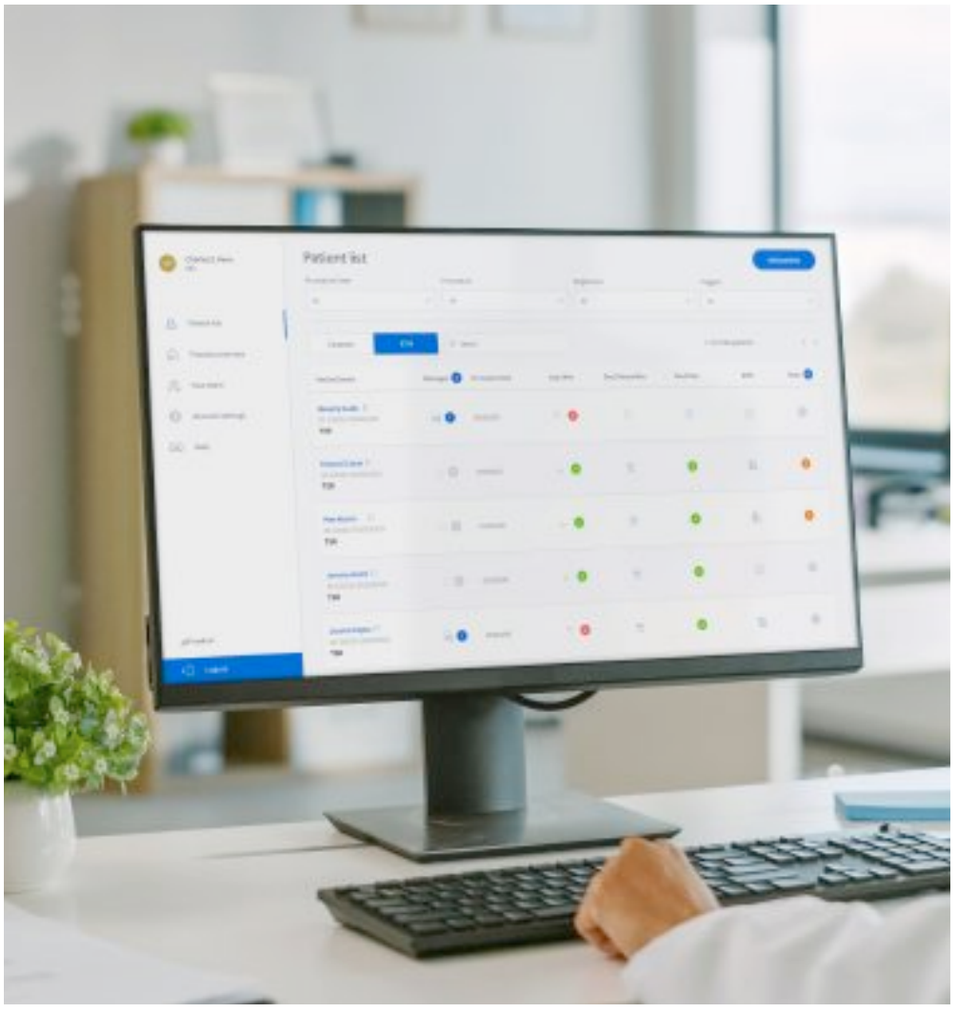
This is what Alcon means when it says it goes beyond products. It is more than simply developing the innovative equipment that allows the NHS to conduct hundreds of thousands of eye procedures each year. It means using its experience and global knowledge to work with NHS trusts and hospitals to improve training, efficiency, capacity and sustainability.

“The NHS is one of Britain’s most loved institutions. Having worked for the NHS, I feel quite passionate about our partnership,” says Turner. “We have achieved great things together, from the world’s first carbon-neutral cataract surgery to the mobile unit to increase capacity. We believe everyone deserves to see brilliantly so they can live brilliantly.”

www.uk.alcon.com

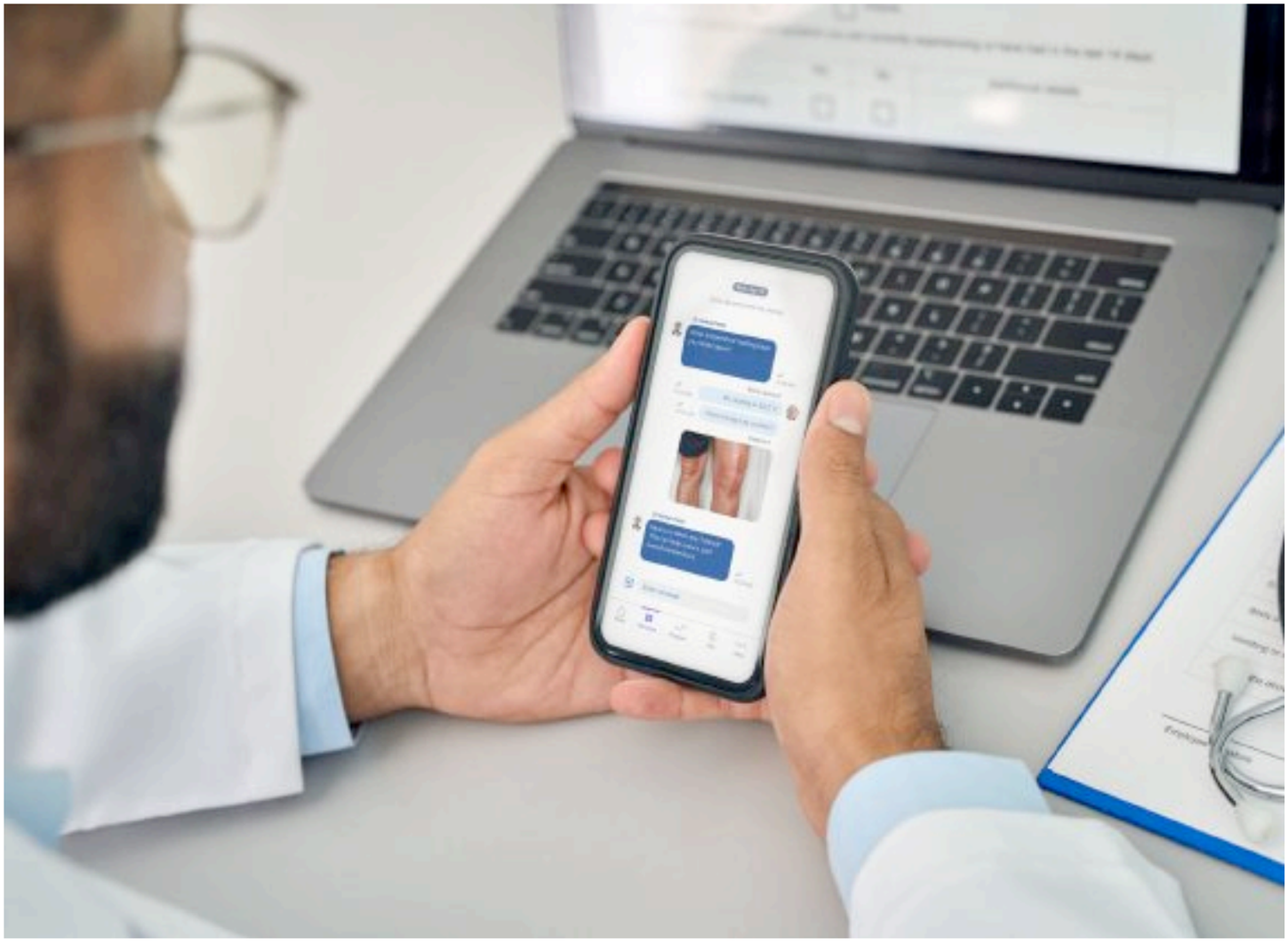
THE ROAD TO RECOVERY

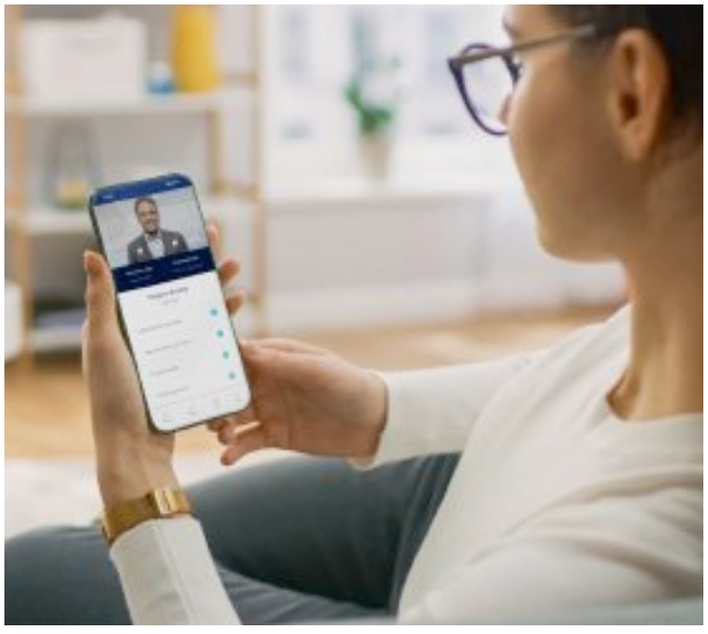
FOUNDED BY NHS SURGEONS, MSK.AI IS THE MOST COMPREHENSIVE TECHNOLOGY PLATFORM FOR MUSCULOSKELETAL CARE AND DELIVERY, AND IT IS ACTIVELY PARTNERING WITH NHS ORGANISATIONS



Starting msk.ai was not the plan. Tom Harte was a typical surgical trainee obsessed with getting work in orthopaedics when he became ill. He had a series of operations for cystinuria, which gave him direct experience of the surgical pathway from the other side of the scalpel – and a lot of time to think. "If I didn't know what to do before and after surgery, how would 'normal' patients? What data or insights was my clinical team using to make decisions about me? I started to see how a digital solution might be the best way to give patients the information they needed and to help clinicians with their care."

Five years later, Harte's msk.ai platform is extremely effective at improving healthcare outcomes while reducing the cost of care, such as delivering high-volume day case elective surgery, and reducing the need for many face-to-face appointments. As a result, it was acquired by HOPCo (Healthcare Outcomes Performance Company), the largest care company in the US that supports musculoskeletal (MSK) care. HOPCo's founders – all physicians – believe the platform complements their own approach to healthcare, due to its ability to engage patients on a meaningful level, enabling them to commit to their treatment and improve recovery. Essentially, patients watch videos or tutorials made by their doctors for each





stage of the post-op recovery process; they can then upload data and photographs so healthcare professionals can quickly and remotely analyse how the patient is progressing. The platform is in use in 15 countries, including 33 US states and a number of leading NHS trusts. And it supports eight languages.

"msk.ai's superior ability to meaningfully engage with both patients and physicians is a testament to the quality of their platform and a key aspect of why HOPCo chose msk.ai as the obvious solution," says Dr Jason Scalise, Chief Growth Officer at HOPCo. The partnership between HOPCo and msk.ai is a natural and synergistic fit. msk.ai technology has a track record of helping patients and physicians align around best clinical practices and treatment plans that are proven to result in superior outcomes. Combined with HOPCo's medical analytics system, it allows for physicians and healthcare services to target care more easily; critical to these efforts is the ability to track outcomes and metrics in real time in order to optimise performance.

The founding principle of msk.ai's technology is the ability to give the patient the right information at the right time, with the belief that if a patient can be empowered to actively engage in their care, it will lead to more informed patients who make better healthcare decisions. This has now evolved into the most comprehensive technology platform, which enables clinical teams to deliver highly personalised information customised to surgeons and health systems to support, inform and better connect with their patients; collect patient-reported outcomes (PROs); drive clinical engagement and reduce clinical workload; understand their performance, improve operational efficiency and financial performance with advanced analytics; identify patients at risk and reduce unnecessary complications; improve bundle performance; and deliver billable Remote Therapeutic Monitoring (RTM) programmes to their patients. It can also reduce unnecessary face-to-face therapy appointments and drive better patient care with automated alerts to identify patients at risk remotely.

The platform brings benefits to the NHS, which was always important to NHS-trained Harte. While he no longer operates as a surgeon, through HOPCo and msk.ai he helps NHS organisations and integrated health systems deliver MSK care on both a regional and local level, and hospitals to

"We are combining clinical excellence with the most advanced technology to demonstrably reduce the cost of care while improving access and outcomes"

align with the GIRFT (Getting It Right First Time) initiative, a national programme with NHS England that is designed to improve the treatment and care of patients through an in-depth review of services, benchmarking and presenting a data-driven evidence base to support change. "While our platform is aligned with best-in-class protocols such as GIRFT, we are also able to leverage our experience in the US market where we deliver high-volume same-day surgery for total joint replacement," says Harte.

"There is an immediate opportunity to support the NHS through enabling high-volume day case joint replacement surgery. And we are uniquely positioned to support this given not only our partnerships within the NHS, but also our market experience in the US. Through combining clinical excellence with the most advanced technology, it is possible to redefine clinical pathways to deliver real change, creating shorter lengths of stay (LoS) without compromising patient experience or care. The benefits of day case joint replacement surgery for both patients and the NHS are huge. Not only can this improve patient experience and reduce inpatient stay costs, but also release much needed bed days, potentially allowing departments to make efficient use of inpatient elective bed provision and protect the ring-fenced status of the required number of beds."

With msk.ai, concludes Harte, "We are combining clinical excellence with the most advanced technology to demonstrably reduce the cost of care, while improving access and outcomes."

www.msk.ai

FEEL THE BENEFIT

A HAPPY EMPLOYEE IS SUPPORTED MENTALLY AS WELL AS FINANCIALLY, WHICH IS WHY VIVUP ADDRESSES MENTAL HEALTH ALONGSIDE ITS ONE-STOP-SHOP BENEFITS PLATFORM

There are few organisations that demand such high standards as the NHS. So, when Vivup CEO Simon Moyle was helping to create a new mental-health support service for customers using Vivup's innovative employee benefits platform, he knew that if it was good enough for the NHS, it was good enough for anyone.

Managed by two former NHS employees, the service was launched in 2018 and now has more than 40 counsellors providing 24/7 same-day support to users. Those users included thousands of NHS employees who worked during the turbulent, uncertain time of the pandemic.

"When you see the comments from service users, you realise we have helped to save lives. That's very powerful and moving," says Moyle. "We have no waiting list and our clinical stats are outstanding. We can get people back to work in the NHS after three sessions, twice as fast as the national average, because we have built our support services to NHS standards and protocols, which are the best there are."

Even more impressive is the fact that the service does not cost the public sector or its employees a penny. Along with several other of its services, Vivup provides mental-health support for free to help public sector organisations attract and retain talent, while enriching the lives of their dedicated workforce.


vivup
Welcome, Rachel
the Vivup portal is your gateway to
health, wellbeing and happiness
Health & Wellbeing
Need support? simply call
03303 800658*
Cycle to Work
Save
up to
42%*
Car Benefit
Tusker.

Vivup's benefits are designed to make a meaningful impact on an employee's mental, physical and financial wellbeing in a holistic, all-encompassing way. This is achieved through solutions such as the Vivup Highfive Recognition and Reward app, which enables employees and employers alike to send their peers support, acknowledgement, or a celebration of an important milestone or a job well done.

Another vital benefit provided by Vivup is Your Care, an engaging health management platform that takes a proactive approach to the long-term wellbeing of employees through promoting healthy lifestyles and positive change. With a helpline open 24/7, 365 days a year, and access to in-the-moment mental-health support, it delivers effective, evidence-based interventions to ultimately help people live happier lives.

To support public sector workers through the cost of living crisis, Vivup's Lifestyle Savings benefit gives employees access to hundreds of discounts on everyday services or purchases from the UK's leading retailers, restaurants, supermarkets and attractions. This helps to alleviate pressure on the low-paid and enables them to enjoy life for less.

This financial support is also evidenced through Vivup's Payroll Pay salary sacrifice scheme, which gives employees access to the items they want and need while spreading the cost across the year. From home and electrical items to commuter bikes, holidays and staycations, to all-inclusive car packages, Payroll Pay is a useful way for employees to manage their money and enjoy a greater sense of financial freedom.

Vivup provides employees with unmatched access to hundreds of retailers via Payroll Pay, including trusted brands such as Currys, John Lewis & Partners, Roger Black Fitness, and more. Moyle cites the example of an employee who requires a new washing machine but cannot afford to pay for it outright. Rather than take a loan at high interest rates and be forced into anxiety-inducing debt, impacting negatively on mental health and performance, Vivup gives the employee access to a retailer's full range of products at a locked price. Employees spread the cost via fixed monthly salary reductions across 12 or 24 months, capped to ensure their salary remains above the minimum wage. "That means an employee who may have a poor credit rating has access to products at a rate they could never get on the open

"We have built our support services to NHS standards and protocols, which are the best there are"

market," explains Moyle. "The employee is happy, the employer is happy as staff are avoiding the stress and anxiety of debt, the retailer is happy, and we are happy with providing meaningful benefits that really make a difference."

The benefits evolved from Vivup early on and were established by a former NHS employee who felt they could roll out key employee benefits to NHS staff better than the existing contractors. They were right, and within 18 months the company was working with 140 NHS trusts across the UK. For 12 years, Vivup dealt exclusively with the NHS before a recent expansion into the private sector and other public sector organisations. "The NHS had lots of different contracts with many companies," says Moyle. "We said the best thing for the NHS, and for us, was to consolidate. We built the best platform, making it fully customisable to house all staff benefits on one portal – and we provided that for free. It was groundbreaking. We wanted to grow usage and employee engagement by providing a brilliant service."

Engagement has been the key to Vivup's recent success. "We have achieved rapid growth by listening to our clients to understand their needs and find solutions, while also listening to employees to understand their pressure points. It really is the key to building trust and success."

As a result of the trust and respect that Vivup has achieved within the NHS, it has been asked to run a dedicated NHS Wellbeing Hub. With two Hubs now in operation, thousands of staff are benefiting from in-the-moment mental-health support, which enables them to seek help early, before issues escalate and impact both their professional and personal lives.

Alongside extending its offer to other public sector organisations such as the police, as well as around 150 private sector businesses, the core of Vivup's work remains rooted in the principles, ethics and standards of the NHS – which has resulted in satisfied customers across both sectors.

"We knew that if we built our service for the NHS, there wouldn't be any higher standards – and it would be relatively easy to work with the private sector," says Moyle. "But we are there to support and enhance the NHS and their people, and that's the fundamental strength of our service. Everything is built to the highest standards and everybody benefits."

www.vivupbenefits.co.uk

LIVING WELL

OVER 75 YEARS, BUPA HAS BUILT UP SUBSTANTIAL EXPERTISE IN PATIENT CARE ACROSS AN ARRAY OF HEALTHCARE SETTINGS

Seventy-five years is a significant milestone for any institution, particularly those that work in constantly changing yet essential sectors such as healthcare. While the NHS celebrates its 75th anniversary in 2023, Bupa reached the same milestone the previous year.

Headquartered in the UK, the health insurance and healthcare group was founded in 1947 "to prevent, relieve and cure sickness and ill health of every kind". Bupa has worked for decades alongside the NHS and operates across the world, from Australia to Spain, Poland, Chile, Hong Kong and Brazil, running health insurance, hospitals, clinics, dental and optical centres, and care homes. The company has 85,000 employees and delivers healthcare and services to 38 million people, including 3.1 million customers in the UK across private insurance, health trusts, dental and cash plan.

"We are very proud of the supportive role we play in caring for people across the UK, delivering quality care and services to people who are unwell, and helping them to be healthy and become more active," says Bupa's Chief Medical Officer, Dr Paula Franklin. "The care we provide sits alongside the NHS, supporting people's healthcare needs whether it is through GP consultations, dental appointments or residential aged care. We are also proud of our investment to train and upskill our health and care staff throughout their careers with Bupa."

Dr Franklin's own career began in the NHS, as a student of medicine at St Bartholomew's Hospital. At Bupa, she combines experiences and best practice from numerous healthcare systems. She believes that at the heart of all of these is the same dedication to patient care. "I'm sure those who were part of the founding days of the NHS and Bupa would say the human, personal touch in healthcare was absolutely vital and this remains the same today," says Dr Franklin. "We ensure the care we provide – whether it is a knee replacement, a primary care consultation or a meal in a care home – is centred around our patients, residents and customers, and remains at the core of our principles and practice.

"One of the benefits of delivering health and care services in various countries over many decades has meant that Bupa continues to have the opportunity to learn and grow, to ensure we are providing the very best care now and into the future." This means that Bupa can carefully trial a technology or care pathway in one part of the world, before implementing it elsewhere. This became particularly important during the Covid pandemic, when Bupa clinicians and teams across the globe were able to pool experiences and advice on effective practice and treatment, especially regarding protocols to protect residents in care homes.

Bupa is also using its global reach to explore and identify solutions to sustainability as part of the organisation's ambition to become a net zero business by 2040. This includes the introduction of innovative medical devices that can be used to capture and recycle anaesthetic gas waste in Bupa's UK hospital, The Cromwell.

"I'm incredibly proud to lead the thousands of clinicians and staff who care for our customers, patients and residents around the world," says Dr Franklin. "Having had the opportunity to experience and closely observe health services in many countries, I understand the value of the NHS and how fortunate we are in the UK to have this service. The NHS has had a profound impact on the lives of countless Britons, including my own."

www.bupa.co.uk

MONITORING PROGRESS

ENHANCING DENTIST APPOINTMENTS, DENTALMONITORING ALLOWS CONTINUOUS CHECKS ON TREATMENT, AS PATIENTS CONNECT WITH THEIR ORTHODONTIST FROM HOME

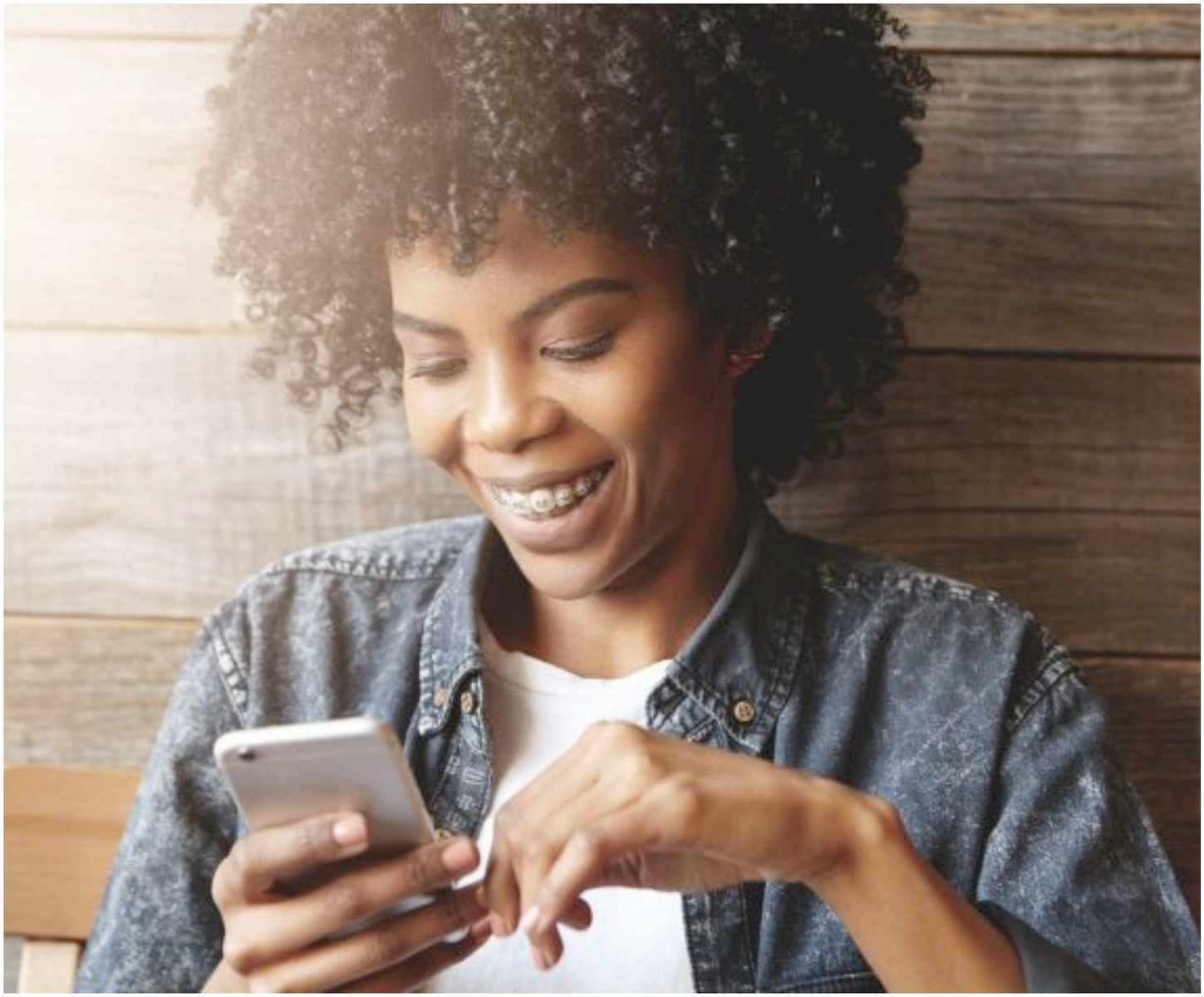
With dental services stretched thinner than ever, DentalMonitoring's pioneering medical technology that uses cutting-edge AI makes orthodontic treatment easier and more efficient for patients and dentists alike. The platform is deceptively simple: using a smartphone, an app and a special device, the patient takes a series of photos of their mouth, and the images are reviewed remotely to see whether the treatment is on track or whether an intervention is required.

Already established in more than 50 countries including the UK, DentalMonitoring reduces unnecessary appointments where no intervention is required, frees up time for dentists and reduces patient inconvenience. "As a dental organisation, our vision is that we exist to make dentistry smarter," says David Drew, DentalMonitoring General Manager for UK & Ireland. "We imagine a world where all patients only go into a practice when they need an intervention. We want to eliminate inefficiencies in order to reduce NHS waiting lists, improve treatment outcomes and reduce anxiety among patients."

Although the focus is on orthodontic treatment, the long-term vision will see the platform used for all forms of dentistry. This is next-generation treatment, with DentalMonitoring's tech able to accurately capture images of a patient's mouth. The images are then remotely uploaded and scanned by AI, which labels over 130 observations, including issues or concerns. If a patient uploads weekly, healthcare professionals can identify problems early, effectively triage and improve outcomes.

"When we began working in orthodontics, it quickly became apparent that there were huge benefits for the NHS," says Drew. "There are long waiting lists, so if we remove some of the unnecessary monthly visits, it will allow more new patients to be seen. Currently, if an NHS patient has an emergency, it can be challenging to secure an appointment. However, using our technology we can see what the problem is remotely, triage patients and prioritise the right types of emergencies.

Patients only have to see the orthodontist when it is strictly necessary, while still knowing that their treatment is progressing as planned. As one of DentalMonitoring's users explains, "The biggest benefit of using DentalMonitoring was the time it saved. My orthodontist assessed my teeth in real time without the



need for multiple visits to the surgery. I was also able to continue my treatment and assessment while on holiday. I enjoyed seeing how my teeth were changing via the tracking video on the app."

There are further benefits. Research shows that if patients are sending images of their teeth to medical professionals frequently, they will brush better, improving oral health. Then there is the data that allows DentalMonitoring to study patterns of behaviour: in several practices the data showed that breakages most often occurred three weeks after a brace is fitted, when the initial discomfort has decreased and the patient takes less care about what they eat. Sugary food and drinks increase the risk of decay. "Now, every week when the patients take a scan, we can remind them of the importance of maintaining their diet," says Drew. "We have reduced the amount of emergency appointments where DentalMonitoring is used."

Dentists recognise the potential of a new tool in the battle against misaligned teeth. Orthodontist Dr Catherine McCanny, who uses DentalMonitoring, says, "It has allowed me to maximise my clinical efficiency and has improved patient compliance."

www.dental-monitoring.com

PROBLEM SOLVED

AS SPECIALISTS IN PROBLEM-SOLVING, LINEA SUPPORTS THE NHS TO OVERCOME CHALLENGES IN AREAS INCLUDING OVERSPEND, BACKLOGS, PRODUCTIVITY AND CULTURE

It sometimes takes an outsider to identify and solve problems. Those working within an organisation may be too close to the situation to see the bigger picture, may struggle to identify root causes or simply become overwhelmed by the scale of the issue. That is where the problem-solving experts at Linea come in.

The Cheshire-based company was founded by Ian Chambers in 2003 and has operated in healthcare since 2007, bringing expertise and knowledge from a range of sectors to address some of the NHS's biggest financial and operational challenges. "Our aim at Linea is to help organisations to improve rapidly and sustainably," says Chambers. "Our style and approach involves working in partnership with them, simplifying complexity and getting to the root cause of problems."

"As trusted delivery partners, we aren't just about the analysis and understanding of issues, but the implementation of solutions – taking our clients on the journey supported by the transfer of knowledge and expertise to their organisation."

Linea has addressed longstanding NHS challenges, such as overspend, productivity, workforce and waiting-list backlogs. The company's approach is to identify a problem and deliver a three-pronged solution: strategic and operational change; interim resources to bridge any skills gap; and capability development, to ensure self-sufficiency through knowledge transfer.

During the pandemic, Linea spearheaded several innovative projects, including one of the first drive-through testing centres, and the transfer of womens' healthcare from a hospital to a premier league football club, reducing the risk of Covid infection. Linea's work with the healthcare sector abroad has been helpful, both in sharing the NHS's experience with other systems and bringing best practice to the UK.

Chambers cites collaboration as the essential factor for the NHS as it faces the challenges of the next 75 years. "With an organisation as big as the NHS, co-ordination is a huge challenge," he says.

"The core challenges of productivity, workforce and finance mean that even a brand as revered as the NHS is facing tensions, pressures and challenges which require a collective response. They are solvable, but not easily, and require a co-ordinated and systematic approach, which is what we will help deliver."

www.linea.net

VOYAGES OF HOPE

MERCY SHIPS AND ITS VOLUNTEER MEDICAL PROFESSIONALS DELIVER FREE, LIFE-SAVING SURGERIES TO WOMEN, MEN AND CHILDREN FACING POVERTY

In low-income countries, more people are killed by conditions requiring surgery than from HIV/AIDS, TB and malaria combined. And yet in sub-Saharan Africa, nine out of ten people have no access to safe, affordable surgery when they need it. This is why the free surgery and healthcare provided by Mercy Ships' floating hospitals is life-changing.

Mercy Ships has thousands of volunteers from 60 countries, including NHS medical personnel, who dedicate their annual leave and sabbaticals to providing surgery, care, training and support to countries such as Senegal, Sierra Leone, Benin, Guinea and Madagascar. As well as carrying out life-saving and life-changing surgery aboard the ships, it creates healthcare provisions on land by training medical professionals, building and renovating infrastructure and working with governments to establish healthcare benchmarks and best practice.

"There's something very special about NHS healthcare providers," says Mercy Ships UK CEO Joanne Balaam. "Like us, they put a patient front and centre, and care for them as a person – based on a patient's needs, not their means."

The expertise that NHS volunteers provide is hugely appreciated, and the experience often proves extremely rewarding for them, too. The sense of value they get from volunteering feeds back into their careers, creating a unique synergy between the charity and the NHS.

Volunteer Rachel Buckingham, who has been a Consultant Paediatric Orthopaedic Surgeon at the Oxford University Hospitals NHS Trust since 2007, says, "We are incredibly lucky to have the NHS. Coming out here, you notice some stark differences. We treat children with such severe deformities. They would never get to that point at home – we would have treated them in early life. People are just so grateful for the chance to get surgery."

Since 1978, when Mercy Ships was founded by Don and Deyon Stephens, it has performed 112,000 life-changing surgical procedures, providing services valued at more than £1.3 billion. Joining the medical teams on the world's largest charity hospital ships, the *Global Mercy* and the *Africa Mercy*, are teachers, administrators, IT experts, cooks, mechanics and engineers – all supporting patients and medical teams.

Once home, Mercy Ships' nurses, doctors and anaesthetists share inspiring stories and invaluable learnings in staffrooms and seminar halls. Enriched and revitalised by the experience, many volunteer time and again.

www.mercyships.org.uk

EQUALITY IN HEALTHCARE

THE MINORITY COALITION FOR PRECISION MEDICINE COMPRISES RESEARCHERS, ACTIVISTS AND INDUSTRY LEADERS WORKING TO INCLUDE BLACK VOICES IN LIFE-SAVING THERAPIES

Sickle cell disease is a genetic condition that predominantly affects people of African descent. Having lost friends to the disease, Michael Friend founded the Minority Coalition for Precision Medicine to raise awareness of genetic conditions and the potential of treating them with CRISPR, a pioneering technology that can be used to edit genes. This started a journey that has taken him to the White House, Harvard and Berkeley.

"I consider myself an activist for emerging technologies such as CRISPR that primarily have an impact on African American communities," explains Friend. "CRISPR is gene-based treatment – you can basically go and turn a switch, remove the bad gene and there goes the condition. It's that powerful. It has potential in so many areas from health to agriculture. I am now working with high-school students in California because this is the generation that the technology will impact. I want students in California to be having the same conversations as students in the UK and other parts of the world. Let's start building these relationships."

After years of working to build trust between African Americans and the medical establishment, a turning point for Friend came when he participated in an event in Boston alongside the Food and Drug Administration (FDA), the organisation that approves new therapies. The FDA representative said they wanted to "go slow" with genetic therapy. "I said that wasn't what people who were already suffering wanted to hear," says Friend. "Almost immediately, we had a meeting at the FDA and a couple of weeks later the therapy was approved. There have now been around 100 successful procedures with individuals cured of sickle cell."

Friend has worked with schools, churches, politicians and scientists, and now wants to have conversations on an international scale, including raising awareness among young people in the UK who might also benefit from CRISPR therapy. "We want people to be aware of what is happening," he says. "I want to identify schools in the UK so people can have these conversations with students from the US and organise an international conference for young people.

"We are going to ensure these conversations happen and that opportunities will arise from this most powerful technology."

www.mc9pm.com

KEEPING THE PAST ALIVE

ALONGSIDE INTRIGUING MEDICAL ARTEFACTS THE MUSEUM OF MILITARY MEDICINE TELLS THE STORY OF ARMY MEDICINE AND HOW IT HELPED DEFINE THE NHS

For the military to be effective in its main concern, it has to maintain the health of its troops. The story of how the army's health and that of the nation are inextricably linked is expertly told at the Museum of Military Medicine, located at Keogh Barracks in Mytchett, Surrey. The museum was founded in 1952 as the regimental museum for the Royal Army Medical Corps (RAMC) and now includes collections of the Royal Army Veterinary Corps, Royal Army Dental Corps and Queen Alexandra's Royal Army Nursing Corps. The unique blend of archive and artefacts is unlike anything seen elsewhere.

"We have medical equipment, personal items and operational documents going back to the 1790s," says Museum Director Jason Semmens. Among the 30,000 items is a sample of the culture of penicillin discovered by Alexander Fleming, who served with the RAMC in the First World War before embarking on his bacteriology career at St Mary's Hospital, Paddington. There is also material about the liberation of Belsen in 1945 and the vital role played by Brigadier Glyn Hughes in managing the medical aid.

The two world wars had a significant impact on the birth of the NHS in 1948. The young clinicians who served in the trenches were the first consultants to man the organisation, followed by an equal cohort from the Second World War. The mass casualties and need for specialisms to treat common wounds enabled the development of the medical specialist pathways seen in the NHS today. After demobilisation, military nurses were available for employment, and the network of Emergency Medical Service hospitals, including some military ones, built to support the home population, became a mainstay of the NHS. The soldiers need for, and expectation of, free healthcare certainly influenced the advent of the health service. From 1947 to 1960 many newly trained doctors performed National Service in the RAMC before joining the NHS.

The military maintained its own hospitals until the end of the Cold War, and since then military clinical staff have integrated within the NHS, with allowances made for periodic overseas deployment. Medical staff from the Reserve Forces (the Territorial Army) have also been part of the NHS from its inception.

The museum is free and welcomes visits, providing "continuity and inspiration to serving soldiers, and tours for the general public to support lifelong learning".

www.museumofmilitarymedicine.org.uk

IMAGE OF HEALTH

PAUL STRICKLAND SCANNER CENTRE IN LONDON IS AT THE FOREFRONT OF DIAGNOSING CANCER AND OTHER SERIOUS DISEASES THROUGH CUTTING-EDGE SCANNING TECHNOLOGY

Oncologist Dr Paul Strickland campaigned for the use of scanners on behalf of his cancer patients at Mount Vernon Cancer Centre in Northwood, Middlesex from their invention until his retirement in 2011. He worked tirelessly to raise the £1.7 million of charitable donations needed to fund the hospital's first CT scanner, MRI scanner and a building in which to house them, opening Paul Strickland Scanner Centre in 1985.

"Prior to the 1980s, medical imaging wasn't widely used in cancer diagnosis or treatment, so cancer was often diagnosed at a later stage and the type, extent or location may not have been known, particularly if it had metastasised," says Claire Strickland, CEO of the centre. "My father was one of the first doctors to recognise the enormous potential for scanners to improve outcomes for cancer patients."

The specialist imaging centre, which operates as an independent charity to this day, now has six scanners and has become the leading provider of MRI, CT and PET-CT scans to NHS cancer patients at Mount Vernon Cancer Centre and beyond, as well as to private patients from all over the world. "Huge strides have been made, and continue to be made, in understanding and treating cancer. Scans are now integral to early diagnosis, treatment planning and observing the effect of interventions," explains Strickland.

Strickland says that her priority "just as it was for my father, is supporting our patients and providing the best possible care during what can be a very emotional experience". Whether a patient has been referred to us for an initial scan by their GP on the Vague Symptoms Pathway, for example, or they're undergoing what they hope will be their last ever scan – every single one is momentous for them, and for us."

The charity remains at the forefront of research, innovation and consultancy in the field, and continues to support the diagnosis and treatment of cancer and other serious conditions, thanks to the generous donations of its supporters. "As scanning technology improves in areas such as AI and image definition," says Strickland, "so, too, does our ability to observe in greater detail and to analyse with greater speed, precision and efficiency. It is an extremely exciting, interesting and rewarding field in which to be involved."

www.stricklandscanner.org.uk

ON THE FRONTLINE

WITH ITS NHS AND INTERNATIONAL PRACTITIONERS, THE CHARITY UK-MED HELPS LEAD MEDICAL RESPONSE AND CAPACITY-BUILDING IN EMERGENCY SITUATIONS AROUND THE WORLD

"Climate change, rising infectious disease, state fragility and armed conflict are all dragging increasing numbers of people into humanitarian disasters," says UK-Med CEO David Wightwick. "At UK-Med, we don't just respond to the current emergency, we work with local health services to build capacity to meet the rising need."

UK-Med is a WHO-approved frontline medical-aid charity, which has global health expert Sir John Oldham as its Chair. It helps to lead the global response to emergency needs that are increasingly growing. The UN has estimated that 339 million people in 68 countries will require humanitarian aid in 2023, an increase from 274 million in 2022.

The charity responded to the earthquakes in Turkey and Syria, sending medical teams within hours of the disaster. UK-Med is also at the forefront of life-saving aid provision in Ukraine. "The security and logistics challenges in Ukraine are significant, but we estimate that UK-Med's operation has benefited 20,000 people," says Wightwick. "Our surgical teams tackle severe, complex wounds, often requiring sophisticated orthoplastic procedures. Each intervention is life-saving or life-changing."

Alongside surgical work, UK-Med supports, trains and builds resilience into Ukraine's shattered primary healthcare services, using its experience and relationships on the ground to move swiftly in response to changes on the battlefield. "Our ability to project into difficult, newly accessible areas at speed, safely and with experienced staff, has made us proud."

UK-Med was founded in the 1980s by the NHS's Professor Tony Redmond, and its team today comprises NHS experts, international medics and humanitarian-aid professionals. NHS practitioners who deploy overseas with UK-Med bring new skills home. In 2020, at the height of Covid, a UK-Med team led by Redmond spearheaded the establishment of a Nightingale hospital in Manchester, using skills learned during deployments.

Dr Freda Newlands, an emergency-medicine specialist from NHS Dumfries and Galloway, is typical of the skilled professionals on UK-Med's register. Her deployments have included Bangladesh, where she gained insights into treating diphtheria. She is now one of the few UK doctors with practical experience in treating this disease.

"Each emergency requires different resources," says Wightwick, "but there is always a need for healthcare. At UK-Med, we use our experience to bring the best medical expertise to bear at the most vulnerable point."

www.uk-med.org

CHAPTER 8

FACILITIES MANAGEMENT

THE FACILITY TO CARE

FOR THE PAST DECADE, NHS PROPERTY SERVICES HAS PROVIDED A RANGE OF EXPERTISE TO SUPPORT NHS PATIENTS, CUSTOMERS AND COMMUNITIES

The NHS is not the only UK health service organisation marking a milestone this year. NHS Property Services (NHSPS) is celebrating ten years of serving patients, customers and local communities with facilities management, property expertise and the transformation of the NHS estate across England.

"The last 10 years have seen significant change across the NHS, and I am incredibly proud of the role NHSPS colleagues have played in helping to support that change," says Martin Steele, CEO at NHSPS. "Our ambition is to continue focusing on putting our customers at the heart of everything we do, working in partnership with our NHS colleagues and enabling them to deliver excellent care to the patients and communities they serve."

A limited company that is owned by the Department of Health and Social Care, NHSPS is a key adviser to NHS organisations on all property matters and has developed significantly as an organisation over the past decade, enabling its customers to focus on what they do best – providing excellent care to patients.

Services include estate strategy, property development, management and disposal, and facilities management, which spans everything from building maintenance to hygiene and cleaning. With a portfolio of more than 2,755 properties valued at over £3 billion, ranging from listed buildings to state-of-the-art integrated health campuses, NHSPS has evolved over the last ten years, achieving significant outcomes for patients and customers. By working

LEFT AND OPPOSITE
NHS Property Services provides facilities management expertise, along with property development and management services

in innovative ways and collaborating with NHS teams locally, regionally and nationally, it has been able to support the delivery of the NHS Long Term Plan, providing buildings that meet the needs of patients accessing new models of care.

The service's achievements since it was established in 2013 include the investment of £907 million to build and improve NHS facilities, and the reinvestment of more than £504 million into the NHS from property sales. It has also developed a workforce of some 6,000 individuals to help keep NHS buildings in working order and, significantly, supported the NHS during the Covid-19 pandemic to provide 1,000 additional beds, set up 23 mass vaccination sites and 227 Primary Care Network vaccination sites, as well as conducting over 10,000 deep cleans.

The NHSPS also commissioned the Health Creation Alliance last year to research how various different communities access and use repurposed NHS spaces up and down the country. This study looked into those disproportionately affected by health inequalities, highlighting how access was an important consideration for many – whether that be how they get to a facility, how they access the building, or how they move around the premises.

The aim of the research project was to ascertain what it was about the community spaces, and the processes involved in making such spaces available, that helped or hindered communities. Additionally, the project tried to identify the common factors that the various communities accessing the spaces valued most about them.

Ultimately, this research will inform NHSPS' social prescribing programme and any future endeavours that also try to create health in the community. It also illustrates how the service's primary goal – to help deliver healthy outcomes for patients and customers – is delivered in a host of different ways.

"For me, NHS Property Services is all about enabling excellent patient care," says Steele. "That is what must drive us as an organisation. Whether it's through our frontline facilities staff or our expertise in asset management, that purpose is a golden thread that runs through our organisation."

"Our ambition is to continue focusing on putting our customers at the heart of everything we do"

PUTTING PATIENTS FIRST

BY SHOWING PEOPLE THAT THEY CARE, USING THE LATEST TECHNOLOGY, AND CLOSE COLLABORATION, FACILITIES MANAGEMENT SPECIALIST, MITIE, DELIVERS EXCEPTIONAL SERVICES TO THE NHS

It is a busy morning at the Stores area on the lower ground floor of University College London Hospital (UCLH). The healthcare facility must run like clockwork to make sure patients receive the very best treatment and experience. This means keeping the engineers responsible for hospital infrastructure supplied with all manner of hardware. Requests come thick and fast.

Behind the counter, Stores Supervisor Shani Williamson (opposite) is maintaining the pace and fulfilling the orders as quickly as possible. Relatively new to UCLH, she started an apprenticeship with the hospital's facilities management partner, Mitie, in 2020. Williamson's potential soon became clear and she was promoted to her current role. "I work with Mitie's mechanics, plumbers, electricians and the water and fabric teams to make sure everyone has the correct equipment for their tasks," she says. "After starting as a Mitie apprentice, I was delighted to be able to progress my career."

Health and safety is a clear priority and Williamson also issues PPE, liaising with suppliers and engineers to source materials. "As a team, we're conscious of patients and the part we play in improving their hospital experience," she says.

Williamson and her teammates make a valuable contribution to Mitie, the UK's largest facilities management company. Based in London, the organisation was founded in 1987, and partners with 40 NHS trusts, providing a portfolio of specialist services including portering, cleaning, catering and security. Every year the Mitie team cleans 160 million square metres of hospital space, serves 3.6 million patient meals and undertakes 400,000 portering jobs. Across the organisation's total workforce of 68,000 colleagues, 155 nationalities are represented, and, in December 2022, Mitie was named an Inclusive Top 50 UK Employer for the fifth year in a row.

Complementing the hard work of Mitie's staff, the organisation uses the latest technology to facilitate compassionate and efficient healthcare services. Solutions include intelligent task scheduling and prioritisation. For example, should a patient need to be moved, the closest available Mitie colleague receives an attendance request on a handheld device, improving efficiency and hospital experience. The catering division offers an electronic meal ordering system to cut food waste. Mitie also uses advanced ultraviolet units that harness the power of UVC light to disinfect surfaces and fight bacteria and viruses, including Covid-19. Footfall monitoring identifies the busiest parts of the hospital for cleaning. For this task, cleaning robots are increasingly used, enabling their human counterparts to concentrate on priority areas, such as high-traffic touchpoints.

The convergence of technology and caring staff is encapsulated in Mitie's Science of Service approach: "Powered by technology. Driven by data. Made exceptional by our people." It is all a far cry from 50 years ago, when Martin Moore (pictured overleaf) from the East End of London began work as a porter at Middlesex Hospital. Moore was in his teens then, but now, half a century later, he is still working with the NHS, as Mitie's Waste and Environment Manager at UCLH. Using the latest technology, Moore identifies and disposes of waste, as well as taking care of recycling to support the NHS's sustainability agenda and commitment to reach net zero carbon by 2045.


mitie
SECURITY & THE
PATIENT
EXPERIENCE
OUR PEOPLE,

In his long career as a porter, Moore cared for thousands of patients – among them Queen Elizabeth II, Barbara Bush and Margaret Thatcher. The latter encounter led to a call from No 10 Downing Street the following day. “I had a meeting with the boss,” recalls Moore. “I thought I was in trouble, but it turned out No 10 had been on the phone. My boss said they all thought I was the best thing since sliced bread.”

Like Williamson, Moore is aware that his role is an important part of the hospital ecosystem, contributing to a positive patient experience. “The ideal porter is someone who wants to help,” he says. “It’s like a family here. When we have new starters, I tell them that if they’re looking to get something out of their job, they’re in the right place. You get to speak to patients, consultants and the families. I feel very lucky.”

Such pride in supporting the UK’s national healthcare provider is evident across Mitie. “We are proud to be part of the family of partner organisations that support the NHS in providing exemplary healthcare,” says Managing Director of Mitie Communities Alice Woodwark. “As the NHS turns 75, it is wonderful to celebrate an institution that has done so much for the UK. From our domestics to porters, and catering staff to maintenance operatives, Mitie delivers exceptional services for the NHS every day.”

It is critically important for Mitie colleagues to understand the particular challenges and responsibilities associated with working in a hospital. That is why Mitie’s Patient Experience Manager Debbie Fisher (opposite, bottom) developed the Patient First programme. It provides specialist training for those working in a hospital environment, prioritising the wellbeing of the patient.

“Hospitals are an emotionally turbulent place,” says Fisher. “If we can make a small difference to a person’s experience, to make their day a bit less stressful, that’s a job well done. It’s about putting ourselves in the shoes of the patient, visitor or medical staff. There are lots of things that contribute to human behaviour, and it’s important we try to understand what someone may be going through. Making sure Mitie’s frontline colleagues know they have a part to play in the patient’s experience is all part of my job. We aim to make time spent in the hospital environment as stress-free as possible.”

The continued strength of Mitie’s relationship with the NHS stands as a testament to the talented colleagues in the respective organisations, together with patient-focused, technology-led delivery.

“Our people have much in common, not only in terms of their diversity and dedication, but their focus on patients and the role they each play in supporting recovery,” says Woodwark. “Together, we make a great team, and we look forward to working with the NHS for many years to come.”

www.mitie.com

“It’s about putting ourselves in the shoes of the patient, visitor or medical staff”

A DEEP CLEAN

POWERED BY ARTIFICIAL INTELLIGENCE, GAUSIUM'S PORTFOLIO OF AUTONOMOUS COMMERCIAL CLEANING ROBOTS ARE GOING WHERE NO BOT HAS GONE BEFORE

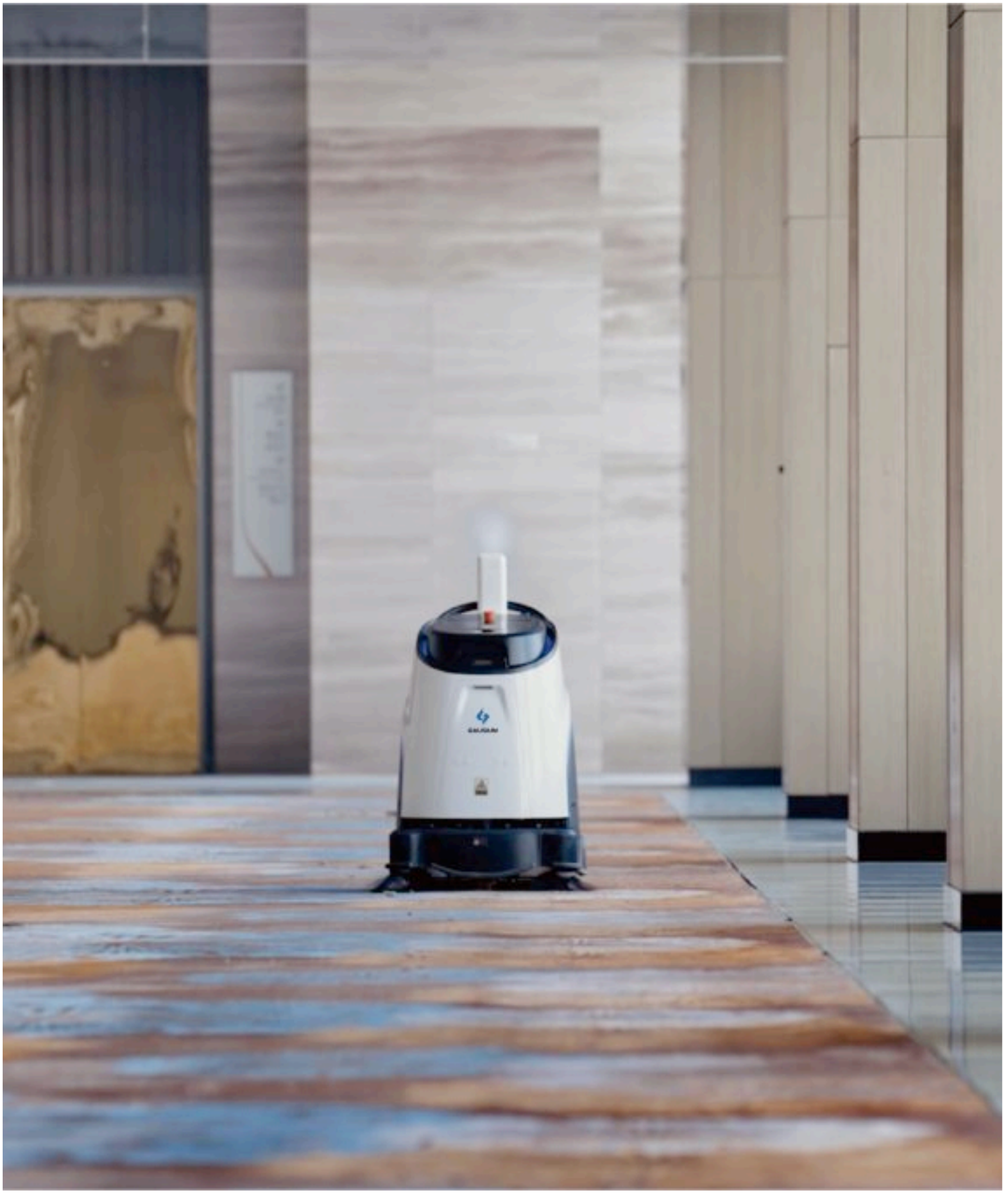
Exponential advancements in technology have taken robotics from novelty to necessity, and, according to Peter Kwestro, Global Business Development Director of Gausium, which provides robotics to the service industry, this is leading to breakthrough after breakthrough. Through deep learning, Gausium's robots are now capable of full autonomous cleaning.

The Shanghai-based company has been developing autonomous cleaning and service robots, alongside their integrated software, since 2013, with products that are now in use in over 40 countries worldwide. Each robot can be monitored remotely and is connected to the cloud. The latest models eliminate the need for manual work with their spot cleaning capability, which "until recently was unheard of," says Kwestro.

Spot cleaning, in other words removing a stain or spillage from a specific area, has been a leap forward in the industry. "Normally, robotic cleaning machines clean the whole floor plan," explains Kwestro, but with deep learning the AI system is shown thousands of pictures until it is able to recognise when there has been a spill. This avoids cleaning the whole floor and helps save energy, the use of chemicals and water. It also prevents the risk of contamination, as being able to remove the spillage quickly prevents people walking through it and spreading it further.

All this is made possible with the help of SLAM (simultaneous localisation and mapping) technology. A robot first has to learn its surroundings by making a map. While doing its task, the robot will match that map with the actual space. When a robot is cleaning, it is looking at its surroundings and creating a path. "This is how they move around autonomously. Gausium's unique multi-modal SLAM technology allows our robots to be highly efficient."

Gausium's name was inspired by the German mathematician and physicist Carl Friedrich Gauss. "When you talk about robots, you talk about the calculation of possibilities. Gauss could take a problem that no one else could solve and then somehow manage it," says Kwestro. Gausium and Gauss have that in common. "If someone comes to us with a problem, we say, 'OK, let's make this work'."



With staffing shortages affecting businesses around the world, Gausium is attempting to redress the balance. In the past two years alone there have been tremendous advancements in the company's robotics, which, in turn, means staff are more efficient, with improved working lives. Robots take over the repetitive tasks of cleaning that are time consuming. "This frees up staff," says Kwestro. "It lets them spend more time working on the important tasks.

"A large German cleaning company had several clients who asked them if they could take on more work. After struggling to recruit enough staff, they bought 11 robots and placed them with eight of their clients. They needed more cleaning capability and the cleaning robots made this possible."

It was the science-fiction writer Isaac Asimov who first coined the term "robotics", in 1942. Robots appear in many of his stories as willing servants to man. Visitors to Gausium's Experience Center in the Netherlands have encountered something similar. Guests can challenge the different models to carry out various tasks. According to Kwestro, those who come with low expectations leave astonished at what they have seen. They can't believe what the robots can overcome and start daring them to do more and more.

Indeed, with its latest model, Phantas, Gausium has made a machine that can go where no robot has gone before. The unique capabilities of the cleaning robot bridged the evolution between a co-bot and a co-assistant. It is compact enough to go under tables and desks, and, in terms of obtainability and affordability, it represents another breakthrough. Phantas has been designed to work in a number of environments, including hospitals, where it would be a contamination hazard to have one big floor scrubber travelling between departments.

At the ISSA Show North America, held in Chicago in October 2022, Phantas was announced the winner of the top honour, the Innovation of the Year Award.

After the utilitarian designs of the first models, Gausium places as much importance on the look of their robots as their function. "They are now designed to be 'sexy'," says Kwestro. "When you see them driving around your office or airport, it's important that they fit in with the space." This added attention to detail has not gone unnoticed – in 2022, Phantas received awards from both the prestigious Red Dot and A' Design Awards for product design.

"Our robots are top of their class when it comes to their technology and capabilities"

Gausium has a team of more than 500 in its research and development department, who are tasked with "creating the future" on a range of projects involving autonomous tools that remove the repetitive yet important element of specific jobs. With the release of the Delivery X1 Pro in 2022, an autonomous indoor delivery robot, Gausium has expanded its capabilities in the service industry.

Gausium has a straightforward way of illustrating the benefits of its robots with its principle of three S's: Smarter, Safer and Simpler. "Smarter is about continuing to revolutionise. Our robots are top of their class when it comes to their technology and capabilities. Safer comes from the reduced chances of contamination. Simpler means a great hassle-free set-up and our 24/7 helpline, which is designed to make it as easy as possible to use the machines. We're redefining service by technology."

With ageing populations and a shrinking workforce that makes staffing more difficult, Kwestro believes the robotic revolution is now. "The robots are ready, available and affordable. They can also help with continuity – for instance, a robot won't change jobs."

Besides, he adds, "Robots never get annoyed if they see someone drop something. They are just happy to have another cleaning task."

www.gausium.com

A MODEL OF GOOD DESIGN

MERIT HARNESSES 4D BIM MODELLING TECHNOLOGY TO SPEED UP CONSTRUCTION OF HEALTHCARE FACILITIES, MAKING HOSPITALS CLEANER IN THE PROCESS

The NHS has come a long way since it was founded in 1948, but if the institution is to prosper for another 75 years it must find ways to evolve. This means innovation in areas such as training and treatment, but also in the way facilities are constructed.

At the moment, the NHS – like most organisations – uses systems of procurement and tendering that rely on the input of consultant designers. But there is an innovative alternative that is faster, more efficient and leads to healthier hospitals. Northumberland-based Merit is pioneering a new approach to offsite construction that is already reaping huge benefits for the NHS.

"We are a technology company delivering complex building solutions through digital manufacturing with minimised site construction," says CEO Tony Wells. "We have designed and developed two patented product solutions – the FLEXI POD and the UltraPOD – that we manufacture in our two Cramlington factories, before taking them to site for assembly. Clients can achieve any layout internally and externally they like. We design everything ourselves in-house using our expert design team and advanced 4D BIM modelling technology. We have a stringent sustainability programme to calculate the carbon footprint of the building, and we can go from inception to commissioning, validation and completion in a third of the time compared to the traditional build model."

The biggest difference between Merit and traditional construction companies is that Merit is a manufacturing company – one that designs buildings in a way that they can be manufactured offsite. It is a process that reduces the need for costly consultants and makes the entire process considerably shorter and more predictable. "Procurement is often geared around going to a consultant and spending several hundred thousand pounds and coming back with a design that reinforces perceived wisdom," says Wells. "We have a platform design that revolves around manufacturing. We do as much as possible at the factory and finish it on site. We are moving towards repeatable, brandable, standardised products – taking it to the absolute extreme, like you would a car."

Merit has already had considerable success in the private sector and is now working with the NHS on several projects. The company has constructed the UK's first

CAR-T cell manufacturing facility in Stevenage, Hertfordshire, for Autolus Therapeutics, which will dramatically improve health outcomes for cancer patients. “We started designing this FLEXI POD solution in June 2021 and were on site in September 2021,” says Wells. “We completed and handed over the phase one cleanrooms for this building in November 2022, in a milestone of 17 months – three years faster than the biotech industry standard of around five years.”

The use of groundbreaking technology increases output in an industry with notoriously low productivity, but Merit’s approach offers much more than that. These are better buildings – more environmentally friendly – as diligent digital design means that less carbon is used in the manufacturing process. The company’s commitment to the environment goes further; in 2019, Merit stopped designing for construction including boilers and natural gas. “We don’t put them into our buildings and won’t work with clients who insist we do,” says Wells.

By presenting a single solution that solves all problems and satisfies all needs, without expensive consultancy and design fees, the buildings are financially sustainable. And they are healthier, which is particularly relevant when Merit is working with the NHS. It was discovered that 20 per cent of Covid-19 infections came from airborne contamination in hospitals, something that is significantly reduced by Merit’s anti-pathogen air filtration system. They are also 15 per cent smaller, as the design process can eliminate unnecessary plant space, and have a far better safety record than traditionally constructed buildings. This is a perfect example of the straightforward yet innovative thinking that drives its success.

Wells notes the productivity problems facing the construction industry, which has failed to embrace digitisation as effectively as other industries. In that sense, the Merit approach is transformative. The company can simultaneously manufacture in the factory while doing initial piling and groundwork on site, speeding up the construction process considerably. “We try to give a traditional look and feel so you wouldn’t know it’s manufactured offsite,” says Wells. “And the build material has at least a 50-year life.”

“We can go from inception to completion in a third of the time compared to traditional builds”

While NHS trusts are often constrained by procurement processes that can hold back innovation such as Merit’s offsite manufacturing solutions, some trusts have managed to take advantage of the company’s expertise. Merit was able to build a new Central Sterile Services Department for NHS Northumberland in 13 months and is now building a new 10,400-square-metre local hospital in Berwick. “Berwick Hospital will be our first hospital for Northumbria [Healthcare NHS Foundation Trust], and we will use this as our technology demonstration platform, so we can show the benefits of the FLEXI POD building, hopefully completing in 18 months with this refreshingly new way of delivery,” says Wells. “That will make a significant difference to the NHS.”

Further opportunities await, according to Merit’s Chair, Kirsty Wells, who has considerable experience in delivering complex construction projects in collaboration with trusts and is helping develop Merit’s relationship with the NHS. “All the pieces are in place,” she says. “Construction isn’t productive and this needs to change. As the NHS is one of the biggest spenders in construction, the path is clear to move to the offsite route. It is about seizing the initiative, recognising the benefits and making it part of the existing procurement and tendering framework for the new hospital building programme.”

Merit offers value, efficiency and quality, and delivers faster than a traditional build, which is important with the current cost of inflation in construction, explains Kirsty. Plus, it has experience with biopharma so knows how to meet existing regulatory standards. “Merit’s solutions are game-changing, and the NHS can take advantage of its innovation.”

www.merit.co.uk

A BUILDING EVOLUTION

DARWIN GROUP IS AN EXPERT IN THE DESIGN AND BUILD OF HEALTHCARE FACILITIES, SUPPORTING THE NHS TO INCREASE CLINICAL CAPACITY AND CREATE AN ESTATE THAT IS FIT FOR THE FUTURE

When the UK most needed hospital facilities, Darwin Group delivered. The volumetric modular construction specialist provides a turnkey service focusing on the fast design and build of innovative, high-quality, cost-effective healthcare facilities made from sustainable materials.

It uses Modern Methods of Construction (MMC) to create superstructures off site and assembles them on site, a process that is up to 60 per cent faster than traditional construction methods, according to a government report. MMC proved essential during the Covid pandemic, when Darwin Group delivered several buildings in record time, including a 400-bed wing for the University Hospital of Wales in Cardiff that went from design to use in 20 weeks. "That's our largest project yet," says CEO and founder Richard Pierce Jr.

Darwin Group went on to deliver a £15 million all-electric intensive care unit and ward at Airedale General Hospital, West Yorkshire, which won Project of the Year at the prestigious Health Estates and Facilities Management Association (HEFMA) in 2022. "We have a reputation for very good products and, because they are built in the controlled environment of our factory, you get reliability and consistency, plus minimal disruption on site," says Pierce. "These are permanent buildings. The finished buildings are such high quality, you cannot tell that there is any difference to traditional construction."

Founded in 2006, Darwin Group has three products that cover a spectrum of building needs in the healthcare sector. The timber product is ideal for offices or light clinical use, while a non-combustible product suits clinical applications and high-dependency wards. Finally, a heavy-duty concrete-floor solution is suitable for high-rise and high-integrity clinical applications such as operating theatres and diagnostics. In each case, the product is designed by an in-house architectural team that can create a 3D model within 24 hours of agreeing a layout. Construction of the structure takes place in the factory while the foundations are prepared on site. Once installed, external cladding is applied concurrently with the hi-spec internal fit-out.

There are no hidden shocks for clients. "We know what materials we will use, what they will cost and how long it will take to build, so we can quickly give clients certainty on those areas," explains Pierce. "All engineering, fire, thermal and acoustic performances are tested and honed, and we meet every standard required." Waste generation is around only one per cent rather than up to 10 per cent in traditional construction. "We can deliver net zero carbon relatively easily," he says.

Darwin Group focuses only on servicing healthcare, with the delivery of several new buildings in 2023 amounting to around £120 million of business. Pierce hopes to increase that to £200 million per annum over the next few years. The company has plans for a new state-of-the-art factory, office complex and training facility in its local Shropshire area, enabling it to grow without changing its core competencies. "We are a very collaborative business," says Pierce. "We get involved with clients early and engage directly rather than through third parties. I often go to our sites to meet clients and check on off-site subcontractors to ensure we always deliver a great customer experience."

Pierce anticipates there will be further growth in the sector and Darwin Group is well placed to expand. "We want to offer the Darwin Group experience to as many NHS clients as we can."

www.darwingroupltd.co.uk

SETTING STANDARDS

WITH EXPERTISE FROM VENTILATION TO FIRE SAFETY, DRLC ENSURES THE SMOOTH OPERATION OF SERVICES IN SOME OF THE BIGGEST NHS HOSPITALS

Behind the scenes of every hospital are a raft of services that nobody notices unless they go wrong. They include plumbing, lifts, ventilation, medical gases, pressure systems, decontamination and fire safety. Chartered Engineer David Livingstone has been ensuring the smooth operation of several of these for more than three decades, initially working throughout the public sector including the NHS, but now acting as an independent auditor of safety standards with his own company, DRLC, of which he is Managing Director and his wife Louise Webb is a Director.

In his role as Authorising Engineer, Livingstone oversees ventilation, pressure systems and fire safety for some of the UK's most important hospitals, including The Royal Marsdens in Chelsea and Sutton, King's College Hospital in London, Nottingham University Hospitals, Sheffield Teaching Hospitals and Sheffield Children's Hospital. "As Authorising Engineer, David is an external consultant for monitoring safety standards," explains Webb. "Within a hospital there will be an Authorised Person for each service, who understands the standards they should be working to. They answer to a Designated Person whose responsibility is to bring in an independent specialist to ensure the standards are being met. That's David's job."

Since founding the company in 2016 in Sheffield, the pair have increased DRLC's range of services from initial ventilation work to encompass fire safety and pressure systems. These are critical functions for any hospital. Pressure systems include not just boilers but the steam pressure systems required to sterilise medical equipment. At The Royal Marsden, the UK's leading cancer hospital, ventilation is extremely important with thousands of patients being treated daily, many immunocompromised due to chemotherapy and radiotherapy. It was Livingstone's experience with ventilation that saw him appointed as Authorising Engineer for the temporary Nightingale Hospital that opened at ExCel London during the Covid pandemic.

"This is where David and I make a great team," explains Webb, who has worked in IT, project management and academia, and is currently doing a master's in Building Services Engineering through Heriot-Watt University. "My first degree is medicine, although I didn't practise, and David knows engineering, so when Covid started we did some research and quickly realised it was being spread through the air. We then wrote advice for all our clients, helping them to manage their ventilation to mitigate the spread of Covid. In April 2020, David received a phone call at 10pm one night and was told he was needed for the Nightingale. He travelled to London during lockdown and advised on how best to manage the ventilation in this huge building."

DRLC has grown through word of mouth, but it has taken more than that to expand the business eightfold over six years. When Livingstone and Webb, along with their fellow directors – children Hamish and Melissa – moved into pressure systems and fire safety, alongside ventilation, they brought more expertise into the business. They are now planning to add water safety to their portfolio.

It is important for the founders to act as partners for clients to the overall benefit of the NHS. "There are various ways of being a consultant and an auditor. One is you line everybody up, tell them what they have done wrong and march out again," says Webb. "We don't do that. We ask clients how we can help. We ask what their biggest issues are, where they think they need support. Instead of being at loggerheads with the people on the ground, we walk in their shoes."

www.drlc.uk

THE BEST OF HEALTH

ISS BRINGS ITS GLOBAL EXPERTISE IN HEALTHCARE TO DELIVER SOLUTIONS TO THE NHS THAT POSITIVELY IMPACT PATIENT EXPERIENCE AND HEALTH OUTCOMES

Core to NHS healthcare delivery are scores of essential workers, such as cleaners, porters, caterers and engineers, working behind the scenes. Many of these jobs, across 221 NHS buildings, including 58 hospitals, are undertaken by some 10,000 staff at ISS, the world's leading facilities management company. With worldwide experience in healthcare delivery, which includes four of the world's largest healthcare territories – Singapore, Australia, Turkey and the UK – ISS brings a wealth of extensive healthcare knowledge and solutions to the NHS. "We are proud to partner with the NHS," says Donna Brown, Managing Director of ISS Healthcare in the UK. "It's a remarkable national institution that impacts on so much of society, and that gives us the ability to make a significant contribution."

Across England and Scotland, ISS works with 35 NHS trusts, placing staff at the centre of national healthcare. These are the people who move patients, clean, handle waste, provide catering services and manage the energy and ecology of NHS sites. Brown describes them as the "nervous system" of a hospital. "We contribute to solutions that positively impact patient experience, staff efficiencies and healthcare outcomes."

Brown encourages staff to embrace their wider role in maintaining hospital health and providing patients with exceptional quality of care. "Our impact is immense. Studies show our staff have eight times more contact with a patient than a clinician," says Brown. "This means every day we get the opportunity to influence how someone feels and to support their care. Our catering teams provide nutrition and hydration that can improve recovery and reduce the length of stay, our porters ensure everything flows smoothly, our cleaning teams play a critical role in reducing the risk of environmental infection, and our engineers keep the building functioning. It is indispensable work."

Key to this crucial work is ISS's training initiatives. These include learning programmes to grow employee skills and ensure adherence to high service standards and regulations. This thriving talent pipeline has since seen the introduction of the ISS Training Academy: a suite of training sites designed for in-person and blended virtual learning, with over 1,000 employees trained since its launch and consistent cleaning audit scores of 98 per cent and above.

In the modern workplace, skills are inseparable from technological solutions, which is why ISS increasingly uses datato drive the progress of its people. Leveraging vast analytical data, the company anticipates outcomes, manages capacity and improves productivity with data-driven decision-making.

Solidifying this collaborative approach is the company's "OneISS" strategy, introduced to synergise its international presence, gather further experience and embrace the skills and knowledge from its presence in 30 countries. This strategy has been key not only to exemplary patient care, but also the wellbeing of NHS staff. "We have a hugely diverse workforce," says Brown. "The NHS is at the heart of the communities that we are part of and creating a sense of belonging and community is critical to us."

With ongoing research into long-term trends, such as increased digitisation, mental health initiatives and a greener NHS, ISS UK's healthcare division aims to support British healthcare to become more efficient as well as more caring. "Healthcare is all about passion, purpose and connection. Our purpose comes to life every day. Ultimately, we are helping to save lives."

www.uk.issworld.com

A CLEAN SOLUTION

PHARMAFILTER ENABLES HOSPITALS TO DEVELOP A CIRCULAR SYSTEM IN TERMS OF WASTE, WASTEWATER AND ENERGY, WHILE REDUCING THE CHANCE OF INFECTION AND CONTAMINATION

A hospital is like a small town. Over an average year, a 600-bed hospital will see almost 300,000 people – among them patients and staff who generate, and have to deal with, a large volume of mixed and hazardous waste streams, including healthcare risk waste and wastewater that contains bacteria and pharmaceuticals. Dutch company Pharmafilter BV has developed a patented on-site combined waste and wastewater treatment system to deal with this mixed waste stream. It also radically reduces human contact, error, transportation, risk, contact moments, contamination and hospital-acquired infection.

"The system was designed by healthcare for healthcare, based on understanding a hospital's current and future challenges," says Peter Kelly, Pharmafilter Group Holdings CEO and Pharmafilter BV Chief Commercial Officer. "Combining the treatment of waste and wastewater together on site within a Pharmafilter plant is economical, efficient and environmentally friendly. It also provides the platform for much improved patient care, staff experience and the environment."

Founded in 2009, the company first introduced its system in the Netherlands. It is now being rolled out in hospitals in Europe, including in the UK and Ireland. Pharmafilter Group Holdings is engaged with NHS trusts in introducing its system to the UK, and Kelly is keenly aware of the challenges that NHS staff face daily. "They're heroes," he says.

The process is ingenious. Biodegradable, single-use bedpans and their contents, plus other bedside hospital waste, are fed into the company's intelligent Tonto waste grinders located in the dirty utilities or sluice rooms. This mixed waste material is combined with hospital wastewater and transported to the Pharmafilter on-site plant using the hospital's internal sewer or a dedicated system. At the treatment plant, the waste stream is separated into liquids and solids, and the waste and wastewater is decontaminated and purified.

"The process requires no chemicals and the biogas it generates powers the system," says Kelly. The waste is rendered inert and the wastewater is also purified and can be returned to the hospital for activities such as flushing the Tonto shredders and toilets, and cleaning vehicles. It is also free from microbiological, pharmacological and chemical micropollutants, including AMR and Covid-19, eliminating them and their impacts from infrastructure and the environment. The system operates on a "duty" and "standby" principle at a minimum, ensuring supply, although the system has never failed in 14 years of operation at various sites.

"Hospitals do not always have the working capital available for projects of this nature, so we created a model where we are treated like any other service," says Kelly. "We install our system over 18 months, working with an in-house project manager, and charge a monthly fee based on an agreed business case and Pharmafilter-generated savings." The outcomes are very positive, with huge cost benefits in waste and water management.

"There are also significant benefits around reducing hospital-acquired infection, and future-proofing the cost and regulation of treating waste and wastewater, as well as carbon reduction and the cost of energy and water," says Kelly. The system improves both the internal working environment and the broader external environment. "We have seen the benefits from day one in client hospitals and have developed a great reputation with them, as well as the staff at the coal face."

Pharmafilter continues to improve the system, working with stakeholders and adding further capabilities. "We are good for hospitals, the environment, staff and patients."

www.pharmafilter.nl


Pharmafilter

IN THE PIPELINE

WHEN A HOSPITAL NEEDS GAS FACILITIES, IT TURNS TO THE EXPERTS AT ALGAS MEDICAL INSTALLATION WHO DESIGN AND DELIVER THE PIPELINES

"NHS Scotland knew Algas had the skills to deliver a robust, effective design in 24 hours – together with the commitment and professionalism to complete the highly complex brief in 14 days," says Scott Johnston, Commercial and Technical Director of Algas Medical Installations. Johnston is referring to an early morning call on Saturday 21 March 2020, during the UK's rapidly worsening Covid pandemic. Senior staff were summoned to Glasgow's Scottish Event Campus, where NHS Scotland was planning to build the Louisa Jordan Hospital, a 1,035-bed emergency critical-care facility. The Algas team had just 24 hours to design a system providing medical gas facilities to each bed.

"In front of senior officials from the NHS, leading contractors and the British Army, we started drawing with highlighter pens on the plan we had been given," recalls Group Director Barry McNicol.

Founded in 2005 by Barry's father, Managing Director Alistair McNicol (the "Al" in Algas), Algas draws on decades of expertise to deliver medical and specialist gas pipeline installations. Supported by a multidisciplinary team, it has become the industry leader in Scotland, serving most new major district general hospital projects and refurbishment programmes.

The company had to draw on all its resources and skills to deliver the Louisa Jordan Hospital. In addition to equipping all beds with oxygen, the team had to provide medical air and vacuum systems to an intensive-care unit. "It was a significant challenge," recalls Johnston. "But our highly trained team delivered, even though there were only 12 of us, and we were also maintaining existing facilities for the NHS."

Algas is proud of its family business principles and its investment in training. In recent years, the company has grown, adding a regional office in northeast England and establishing a maintenance branch. In 2022, Algas stepped in to save the UK's leading medical gas equipment supplier, MIM Medical, before setting up Algas Medical Installations-Manufacturing, Scotland's first medical engineering equipment manufacturer.

This commitment to end-to-end service is all about Algas family values, says Barry. "We're very proud to be a family business supporting the NHS by providing an unrivalled one-stop shop for all medical gas needs, from manufacture to design, installation and maintenance."

www.algasgroup.com

FROM THE GROUND UP

ANTAC SUPPORT SERVICES PUTS CLIENTS FROM HEALTHCARE TO GOVERNMENT AT THE HEART OF ITS COMPREHENSIVE BUILDING MAINTENANCE AND CLEANING PROVISION

"Our approach has always been people-led," says Martin Walpole, one of Antac's Directors. "Over the years, we've witnessed the tireless dedication of healthcare staff, and it's been a privilege to work alongside them."

Antac Support Services is an independent service provider that was set up in 2001. The company provides a comprehensive range of offerings, including building and maintenance, mechanical, electrical and HVAC (heating, ventilation and air conditioning) services, specialist cleaning, window and gutter cleaning, and rope access services, to its valued customers both directly and through third-party partnerships.

"Our teams have become familiar with the specialist demands of working in hospitals – logistically and emotionally – so we can adapt our provision accordingly, often at very short notice," says Walpole, who is particularly proud of the company's ability to respond to clients' individual needs. "Some of our team dressed as Batman and Robin while cleaning the windows of children's hospital wards across the UK. To us, it's not about getting the job done, it's about getting to know our clients so we can ensure it is done in the best way possible for them."

Antac recently launched a Housing Division that is dedicated to its Ministry of Defence Service Family Accommodation Void Maintenance contract. "We are taking an equally attentive approach to working with military personnel as, again, we have a huge amount of respect for their sense of service. In turn, we ensure that we fulfil the needs of the project sensitively, efficiently and to a high standard."

This sense of respect is mirrored in Antac's employment philosophy. Many of its team members have been with the company for numerous years. Training, promoting from within and upholding the highest possible standards in health and safety are paramount across every role. A signatory of the Armed Forces Covenant, the company advocates the employment of former military personnel and is active in related charitable work.

"Antac is rather like a family," says Walpole. "This collaborative, supportive spirit extends to our relationship with suppliers, partners and clients. Although our work involves cleaning and maintaining buildings, our commitment is to serve the people within them." This ethos of giving back to those who serve permeates throughout Antac.

www.antac.co.uk

ENGINEERING FOR WELLBEING

WITH DECADES OF ENGINEERING EXCELLENCE, CPW HAS BROUGHT ENVIRONMENTAL SUSTAINABILITY AND WELLBEING TO NHS BUILDINGS, MAKING THEM FIT FOR THE FUTURE

"Mechanical and electrical engineering play an important role in improving the wellbeing of people within a building, as well as the environment around it," says Andy Hill, one of the directors at CPW. "People-centred, sustainable building design is particularly pertinent to the healthcare sector and has been at the core of our approach for decades."

CPW was founded as Couch Perry Wilkes in Birmingham in 1978, initially to provide mechanical and electrical engineering services to the NHS. More than 40 years later, the company has become an international mechanical and electrical engineering consultancy, with expertise in low-carbon buildings and technological innovation. It has over 300 staff working on projects in the residential, commercial, educational, pharmaceutical, industrial and leisure sectors, as well as on public sector contracts.

Over the years, CPW has supported many NHS facilities to embrace sustainability and decarbonisation, including designing the infrastructure for New Cross Hospital to profit from a seven-megawatt solar farm and a pathway to net zero. "Our healthcare projects include low-carbon new builds and building refurbishments, which could entail significant energy efficiency improvements, exploring the reuse of existing materials and switching to a renewable energy supply – an approach that centres on saving the future by solving the past," says Hill. "We also upgrade and install facilities, which include wellbeing innovations like LED lighting that mirrors circadian rhythms and visual media to create a more relaxing environment for patients during imaging procedures."

CPW is committed to its work with the NHS. Early in the pandemic, its specialist fast-response teams helped with increased oxygen supplies and ventilation changes for isolation wards. In addition, CPW's training and apprenticeship programme, which it has run for over 25 years, is collaborating with NHS trusts to share expertise on sustainability and wellbeing in healthcare.

"We work closely with teams right across the NHS, to ensure projects meet the needs of those who work in and maintain the buildings, as well as the patients," says Hill. "Healthcare buildings are often used 24/7, so consume a lot of energy. That is why efficient, fossil-fuel-free solutions are paramount in healthcare, and why we are so committed to supporting the NHS to build a net zero future."

www.cpwp.com

BUILDING BETTER

HIGH-PERFORMING BUILDING SERVICES CONSULTANCY TROUP BYWATERS + ANDERS DELIVERS WORLD-CLASS NHS FACILITIES WITH SUSTAINABILITY AT HEART

"We started out in healthcare – in fact, our first project was at the Royal Marsden Hospital in 1958," says Alan Newman, National Lead for Health, and Partner, at engineering and building services consultancy Troup Bywaters + Anders (TB+A). "So planning and building for healthcare is a huge part of our business and accounts for around a quarter of our projects."

The three founding partners began their careers in the NHS, then went on to launch the business, which turned 65 in 2023. TB+A has grown to seven UK offices and one in Europe. From these it provides design, planning, operation and facilities consultancy for major properties, including acute services and primary-care buildings, specialist hospitals and mental-health facilities. The partnership prides itself on bringing whole-life advice and support to NHS estates.

"I came on board as a 16-year-old apprentice straight from school," says Newman. "Providing opportunities for people to begin and develop their careers is fundamental to sustainable growth and culture. Seventy-five per cent of business owners started as apprentices, and currently 22 per cent of our people are apprentices."

With a core team of 240, TB+A is well recognised for supporting its people through training and development. It has been awarded the Investors in People "We Invest in People Platinum Employer" accreditation three times and is the first globally to be awarded "We Invest in Apprentices". Most recently, it won SME Employer of the Year at the National Apprenticeship Awards 2022.

The partnership has been carbon-neutral since 2020, and works closely with the UK GBC, the World Green Building Council and Camden Climate Alliance, playing its part in decarbonising the built environment through its own operations, alongside leadership and advocacy within the construction industry. TB+A has aligned with the plan to keep global warming below 1.5C above pre-industrial levels and has its targets approved by the SBTi (science-based targets initiative). "We have reduced our carbon footprint by 40 per cent since 2018 and are seeking to become net zero by 2025, focusing on our Scope 3 emissions from our supply chain," says Newman. "We've always been a champion of low carbon designs and we're now looking towards regenerative design where buildings and nature co-exist and thrive, creating spaces for the nurturing of people's health and wellbeing."

www.tbanda.com

WATER SAFETY

THE WATER SOLUTIONS GROUP PROVIDES WATER HYGIENE CONSULTANCY SERVICES THAT KEEP HOSPITALS ONE STEP AHEAD OF POTENTIALLY DEADLY PATHOGEN OUTBREAKS

If a patient in hospital contracts an illness from contaminated water, the consequences can be fatal. Protecting vulnerable people from harmful pathogens is the remit of the Water Solutions Group, through analytics, consultation and investigation. As a highly specialised water hygiene consultancy, it keeps customers one step ahead of potentially deadly pathogens in complex water systems in hospitals and other healthcare and associated organisations.

"There are two real implications of these organisms," says Technical Director Tim Wafer, who founded the North Yorkshire-based group of companies as H_2O Solutions (Europe) in 2008 and Water Solutions (Europe) in 2011. "First, the impact on the person who becomes unwell as a result of these organisms, and, secondly, the potential legal costs of dealing with an action in the courts."

Governance and compliance are therefore an important part of the Group's work, providing auditing services including risk assessment reviews, biocide systems audits and those tailored to specific components of an organisation's water systems.

If a suspected outbreak occurs, the company takes a sample and sends it to a laboratory. Some tests can provide results in 24 hours, such as PCR tests for legionella and mycobacterium. Action is then taken to deal with the findings, although the aim is to prevent the conditions that encourage these organisms to thrive. "It can be a challenge within the healthcare environment to keep on top of that," says Wafer. "This is why we provide specialist consultancy services to support organisations through this." The Group also performs microbiological sampling of environments such as pools, spas, drains, air – monitoring the process from collection and registration to analysis.

As microorganisms mutate to survive, the Group keeps up with new developments. It is at the forefront of tackling emerging organisms such as mycobacterium, which present as high-risk to vulnerable patients, including those undergoing surgery. "We have to be at the forefront of what is going on through research," says Wafer, "including participating in projects with groups such as the Health and Safety Executive."

Work is also undertaken to support varying industries on prevention methodologies, such as water treatment programmes and disinfectant systems, which are implemented alongside other companies with Water Solutions Group's expert advice.

www.watersolutionsgroup.org.uk

EMPATHY IN STORE

WHSMITH'S HOSPITAL SHOPS OFFER CAREFULLY SELECTED PRODUCTS, A FRIENDLY WELCOME, AND SOME MUCH-NEEDED COMFORT AND NORMALITY

When Andrew Harrison, Managing Director of WHSmith Travel, was visiting one of the company's hospital shops during the Covid pandemic, he was approached by an exhausted NHS consultant. Unsure what to expect, Harrison was delighted to be told how much NHS staff valued their local WHSmith store, which stayed open throughout the pandemic, giving NHS staff a dose of normality during a time of unprecedented stress.

"He wanted to thank our people who had kept smiling during a really hard time," says Harrison. "When you run a business, you don't always appreciate the impact at ground level, so for one of our NHS heroes to thank us was a really good feeling and confirmed that we are doing things the right way."

With over 130 shops in more than 100 hospitals (and that presence is constantly growing), WHSmith works closely with the NHS to ensure its stores are satisfying the needs of staff, patients and visitors. They need to stock healthy hot and cold food, adequate reading material, and accessories such as toothbrushes, nightwear and phone chargers. Then there are other considerations – for instance, those using a maternity hospital have different requirements to a university hospital. Stores can also play a positive role in the community by donating books to children's hospitals and ensuring unsold food is not wasted.

A WHSmith hospital shop is an important part of the NHS ecosystem, where staff are empathic and engaging, needs are anticipated, and shelves are kept fully stocked without impeding on the hospital operation. WHSmith also operates M&S, Costa Coffee and Post Office services in hospitals through franchise partnerships. And as a sign of just how serious WHSmith is about health, the company has signed a pledge committing to raising awareness and training colleagues about mental health and wellbeing in the workplace.

"We are working as a real strategic partner to NHS trusts so we can solve their needs, whatever they might be, using the brands they need to create the offer and proposition their users want," says Harrison. "We take our commitments to each trust very seriously, and ensure we're the best partner we can be to let the hospitals serve their overarching need to support patients, which is the most important thing of all."

www.whsmithplc.co.uk

CHAPTER 9

MEDICAL AND HEALTH INNOVATION

A PIONEERING SERVICE

THE NHS INNOVATION SERVICE IS NURTURING JOINED-UP THINKING IN THE DEVELOPMENT AND ADOPTION OF NEW HEALTHCARE TOOLS AND TECHNOLOGIES

Since its inception in 1948, the NHS has been at the forefront of medical advancements and has embraced cutting-edge technologies, from pioneering procedures such as total hip replacements, to critical technologies such as magnetic resonance imaging (MRI). In 1978 the service was responsible for the birth of the world's first "test-tube baby", in 1987 it performed the world's first liver, heart and lung transplant, and during the Covid-19 pandemic it championed digital technology, delivering remote monitoring and virtual triage systems that supported social distancing and helped reduce unnecessary hospital attendances.

This pioneering approach has not only transformed the lives of individual patients but also provided a significant boost to the nation's economy, and is as vital today as at any time in the service's 75-year history. "Innovation remains a cornerstone of the NHS," says Matt Whitty, Chief Executive of the Accelerated Access Collaborative (AAC) and Director of Innovation, Research and Life Sciences at NHS England. "The NHS is still facing ongoing pressures, but innovation is playing a crucial role in every aspect of our work. From operational pressures to tackling health inequalities and improving outcomes, innovation is rising to the challenge, providing groundbreaking diagnosis and treatments."

Hosted by NHS England, the AAC is a collaboration committed to getting the best new innovations to patients faster. "One of NHS England's missions has been to not only promote and encourage innovative and entrepreneurial thought, but to also implement those ideas and help innovators navigate the system to achieve spread," says Whitty. "The AAC is a vehicle for developing strategic partnerships between the NHS and industry to ensure a thriving health and life sciences and med-tech ecosystem that works for patients, society and the economy."

A major tool in cultivating such partnerships is the NHS Innovation Service, which acts as matchmaker for industry and healthcare innovators, as well as providing up-to-date information and advice on how to get innovations adopted by the NHS. Launched in 2022 as an online portal, the service is a collective of organisations that provide support for healthcare innovators from idea to adoption, matching the needs of innovators to relevant support organisations, to provide information and advice at every stage of their journey.

These collaborations have created a fertile ground for nurturing new ideas and harnessing expertise to address some of the healthcare system's biggest challenges. By fostering an environment that encourages creativity and collaboration, the NHS is central to driving transformative change in healthcare.

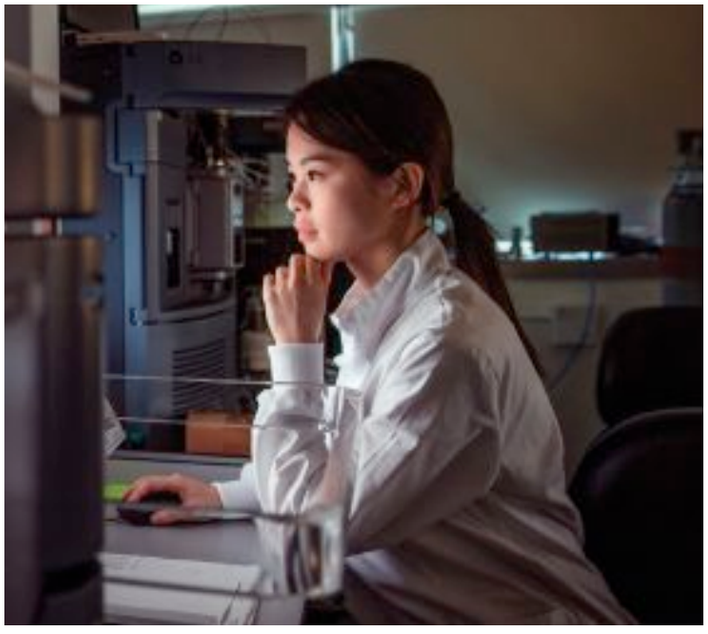
"The extraordinary response to the pandemic comprehensively demonstrated the need to continually innovate," says Whitty. "We couldn't have saved so many lives in hospital, and we couldn't have had such a successful vaccination programme, without working with others to foster and spread new innovations. Now in the context of increasing demand and complexity that need is growing."

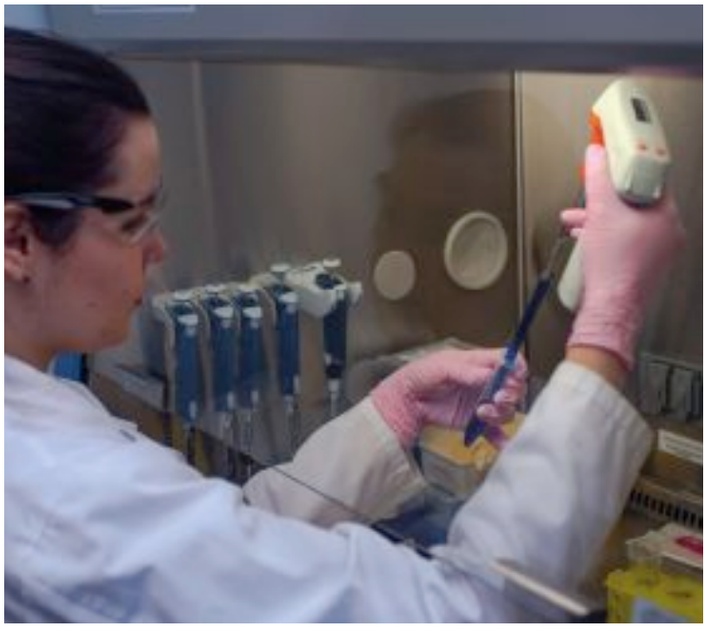
It is a need that the NHS Innovation Service has been created to help meet. Bringing together partners with the experience, knowledge and expertise in developing and supporting the wide-spread adoption of healthcare innovations, the service has already supported more than 300 innovators and fostered multiple partnerships.

As Whitty explains: "It provides a front door for innovators making it much easier for them to get the support they need, which in turn will help ensure a ready pipeline of new ideas that meet the NHS's biggest challenges, including reducing health inequalities and supporting a net zero NHS."

OPPOSITE
The NHS Innovation Service aims to help innovators and healthcare providers work together

"From operational pressures to tackling health inequalities and improving outcomes, innovation is rising to the challenge"





A NEW APPROACH

ASCENSION'S EXPERTISE IS IN TAKING EXISTING TREATMENTS AND MAKING THEM MORE EFFECTIVE USING PATENTED NANO TECHNOLOGIES IN NOVEL WAYS, TO CREATE SAFE, AFFORDABLE HEALTHCARE PRODUCTS

In 1961, at the Babraham Institute in Cambridge, two scientists discovered a new structure. After a discussion in a local pub, they called it a liposome, combining the Greek words for "fat" and "body". This tiny spherical cellular structure was identified as a new means to deliver drugs to patients, but for decades scientists grappled with ways to exploit its qualities.

When Biresh Roy, a chartered accountant with business experience in pharmaceuticals and biotech, spotted a failing pharmaceutical company in 2017, he noticed it had done work with a specially engineered liposome called PEGLip, but had discontinued development. The company already had a liposome product to treat osteoarthritis, but Roy saw the potential to develop something unique with PEGLip. Ascension now markets a product for osteoarthritis, which received a Highly Commended award in the Most Valuable Products Awards 2022, and is developing a product for haemophilia A by enhancing the potency of a key blood-clotting protein, factor VIII (FVIII). A once struggling business is now thriving.

"It is simple but creatively applied nano technology, commercially proven, British and supported by international experts," says Roy. "We wanted to build on our patented liposomal platform by first demonstrating its commercial proof of concept. Now our osteoarthritis product – FlexiSEQ – is sold over the counter in more than 20 countries. But when our clinical haemophilia A product gets regulatory approval, the NHS could treat patients more affordably. Being FVIII replacement-based, it is gold-standard care for the 10,000 people in the UK who suffer from haemophilia A. It opens up the possibility to treat several patients for the cost of one receiving other therapies, freeing NHS budgets for other conditions."

Among those supporting Ascension's innovative approach to treatment is Professor Edward Tuddenham, Emeritus Professor of Haemophilia at University College London, who was the first to sequence the genome for haemophilia A and is a member of Ascension's Medical and Scientific Advisory Board. "Reviving pharmaceuticals previously dropped is a rich source of effective treatments. One


FlexiSEQ
FOR JOINT WEAR & TEAR
DRUG FREE ACTION
FlexiSEQ
FOR JOINT WEAR & TEAR


Clinically Proven
FlexiSEQ
"Osteoarthritis was never going to stop me from doing what I wanted to do"

example is the drug Thalidomide that was used as an anti-sickness drug in pregnancy with disastrous consequences," says Tuddenham. "It was restudied and found to be highly effective in treating some blood cancers and immune conditions." PEGLip was dropped because of a poorly designed trial. "A restudy now supports the original findings and suggests it can be an inexpensive, effective way to improve the properties of factor VIII, when most of the world's haemophiliacs receive little or no treatment."

When Roy set about the turnaround of Pro Bono Bio, renaming it Ascension Healthcare, he discovered he could combine a love of science with his knack for translating complex ideas into language investors could understand. He focused initially on repositioning the FlexiSEQ product for osteoarthritis. FlexiSEQ gel is applied to soft flesh around the knee and when left to dry, specially treated liposomes called SEQuessomes are absorbed into and lubricate the joint, reducing pain and inflammation. "There's nothing like it," says Roy. "SEQuessomes are drawn to the fluids in the knee joint, squeezing through the skin pores. Once inside the joint, they bounce back into shape and sit on cartilage to lubricate the knee. It's a drug-free product, not a pharmaceutical, and certified as a medical device by the MHRA."

The team then pushed ahead with clinical studies to treat haemophilia A using PEGLip combined with FVIII. "Haemophilia A is an absence or low presence of blood-clotting protein FVIII, which means your blood can't clot properly," explains Roy. "Conventional treatments include intravenous FVIII injections several times a week, which isn't pleasant and is expensive, or bypass therapies and drugs that mimic the action of FVIII, but which can have side effects."

Ascension discovered a novel way to enhance existing medication. When liposomes were first discovered, it was envisaged that a drug would be placed inside the liposome and released in the body to deliver it. "Ascension's researchers found a way to 'tether' proteins to the outside of PEGLip, attracting a water shell," says Roy. "The water provides a protective shield to hide the presence of the tethered FVIII protein from the immune system and ensures the drugs are not rejected – which can occur with 30 per cent of haemophiliacs, known as 'inhibitor' patients, over their lifetime."

"It is simple but creatively applied nano technology, commercially proven, British and supported by international experts"

Poised for phase 3 trials, the co-administered PEGLip-FVIII product, SelectAte, shows potential to be the world's first prophylactic FVIII replacement therapy for severe haemophiliacs who have developed inhibitors to FVIII. Both SelectAte and XLR8 (a separately administered version) show a nearly once-weekly injection interval, beyond any FVIII replacement therapy on the market. "If they pass phase 3 trials, they should be available in 2026," says Roy.

Ascension's next intentions are to develop a treatment for type 2 diabetes using PEGLip technology. But Roy harbours a wider ambition that follows the founding ethos of the NHS. He wants to make Ascension's products universally accessible, so haemophiliacs in developing countries do not suffer from a lack of care because of where they were born. "That's Ascension's vision and I want it to be my legacy," he says. "As long as we can cover our costs, people in low-resource economies should get gold-standard care. It's like the NHS, but global. That concept – free at the point of use – is very British: challenging, but with sound underlying philosophy, and exportable."

The benefits for the NHS are obvious. Ascension's pioneering treatments are potentially more affordable than existing solutions, allowing more patients to be treated for the same money. As the CEO of a small British company, Roy says it is exciting to be in a position to produce safe, effective products that allow the NHS to operate more efficiently, for more people.

www.ascension.co.uk

MEET THE EXPERTS

THE IMED CONSULTANCY TEAM USES ITS MEDICAL REGULATORY AND QUALITY KNOWLEDGE, TOGETHER WITH COMMERCIAL EXPERTISE, TO BRING MEDICAL DEVICES AND IVDs TO MARKET QUICKLY AND SAFELY

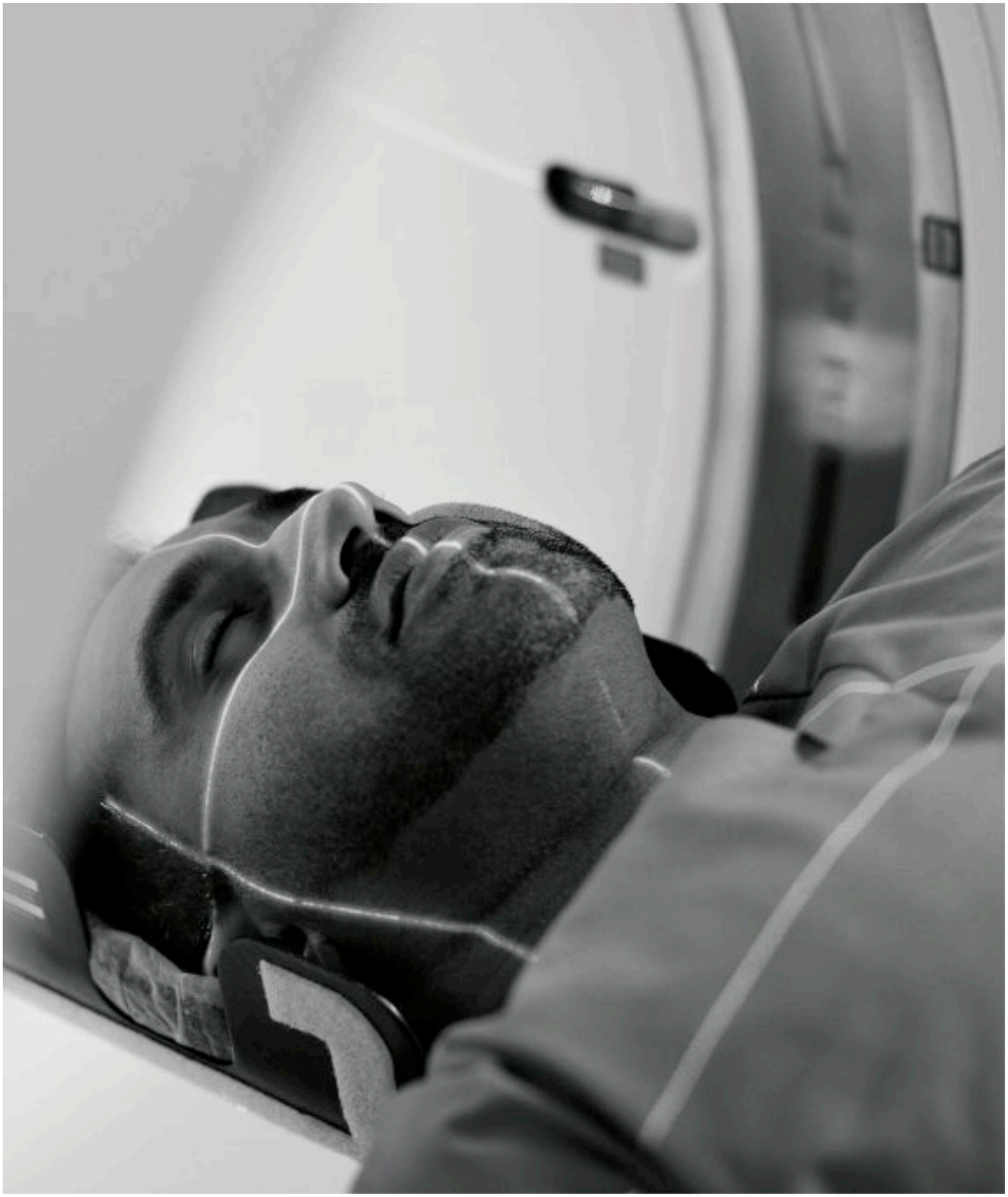
Healthcare would not be possible without medical devices. From splints to CT scanners, software to companion diagnostics tests, all these devices are essential tools for Health Care Professionals (HCPs). Every medical device used in the UK requires regulatory approval, a complex process that is in evolution. IMed Consultancy guides clients, from multinational corporations to young startups, through this forest of legislation to help bring safety and innovation into healthcare.

An important part of IMed Consultancy's work is helping to enable NHS-born innovation in partnership with a Southampton hospital. Martin Gossling, Head of Commercial Innovation, NHS Clinical Entrepreneur at University Hospital Southampton NHS Foundation Trust, supports internally created ideas in gaining access to the NHS, based on assessment of a device's clinical need and suitability of the trust for testing it. He receives up-to-date specialist advice from IMed's experienced consultants in regulation and compliance.

"Some devices we discover have a revolutionary potential and the NHS relies on sound clinical advice to support its efforts," he says. "Up-to-date, accurate regulatory consultancy is critical to ensuring devices can be safely, successfully commercialised."

In 2023, University Hospital Southampton launched an International Development Centre (UHS IDC) to develop innovations through bench testing, prototyping, clinical trials and market launches. Phil Rogers, COO of UHS IDC, is working with IMed for support on regulatory compliance across the board. "As the products begin to be commercialised in the US and Europe, we will call on IMed to ensure technical files meet and continue to meet FDA and EU standards," he says.

IMed Consultancy was founded in 2012 by Leeanne Baker, with the aim of helping partners with a full range of services from supporting market access to regulatory approvals, QMS (quality management system), technical documentation and post-market surveillance. "What really distinguishes IMed is our commercial mindset," she says. "Many consultants in the regulatory field will simply tell a client they need to do X, Y and Z to gain regulatory approval, whereas we delve into the client's needs and operations to understand how to support them in a tailored, effective way.



In our analysis we may find, for example, that the effort required to become compliant in one market can also support the company in another area, opening new opportunities."

Supporting new technology is another priority for the company. "We are working with people who have developed exciting technology that will be on the market soon," says IMed Technical Director, Tim Bubb. "Artificial intelligence, machine learning and other assisted technologies will come into their own in the next five years, supporting clinicians to make effective decisions."

When working with startups, IMed's experts support funding applications and guide clients through the complex needs and practices of different health regulatory systems. New devices are sometimes conceived by clients who are already part of the NHS, such as clinicians who have identified a concern during their daily work and then devised a solution. "This device might do a fantastic job, but that does not necessarily mean that regulatory approval will be easy to accomplish," says Bubb. "The difficulty comes in getting that early prototype through to a commercially viable product. There is the regulatory aspect, the quality aspect and the technical aspect of making it consistent and reliable – all need to be dealt with successfully."

The regulatory landscape in the UK has recently shifted and further changes are anticipated, creating a potential opportunity for innovators. Products could be tested and launched in the UK before reaching other markets – which would benefit the UK healthcare system, as well as the economy. But it must happen without compromising patient safety – another area in which IMed offers expertise and guidance.

"Customer focus is our business mantra and we tailor support to both the needs of large corporates and agile startups," says the IMed founder. "We love to get involved in projects that make a difference. People don't realise the work it takes to get a product into a hospital. We are geeky about regulation, but what we really want to do is get life-changing medical devices into the market."

In 2021, IMed was approached by SureScreen Diagnostics, an award-winning business providing rapid diagnostic equipment and services around the globe. It needed to quickly gain a CE mark for self-testing for the SureScreen SARS-CoV-2 Rapid Antigen Test Cassette, an IVD (in vitro diagnostic device). While this would typically take around a year, it was critical to make the product available to the public faster. IMed liaised with regulators and specialist consultants and was able to pull together and evaluate numerous data sets from usability and clinical evaluation studies, help to optimise the technical file and develop instructions for use.

"Customer focus is our business mantra, and we tailor support to both the needs of large corporates and agile startups"

"IMed is very knowledgeable about IVD regulation, and we worked together as if they were an extension of our own team," says SureScreen Diagnostics' Director Alastair Campbell. "As the regulatory environment for IVDs evolves and we continue to grow our exports, we will still call on IMed's support to help us navigate international regulations."

IMed is also enabling innovation in the mental healthcare sector with Limbic. This London-based startup, which is using world-leading, clinically validated AI and product design to make psychological therapy accessible to all, approached IMed Consultancy in 2022. Limbic Access, its mental health referral chatbot, was being upgraded with novel AI capabilities that required additional regulatory support, being subject to different regulatory requirements.

"IMed Consultancy was open to working with a startup looking to responsibly and safely innovate in the mental-health space," says Ben Carrington, Limbic's Director of Special Projects. "Ours is the first approved medical device using AI to support mental health, and we valued IMed's expertise to make sure all documentation was in order." Limbic became the world's first Class IIa UKCA-marked AI-enabled medical device to support referrals and clinical assessments in psychological therapy in only nine months, gaining an important market advantage – with IMed's support and expertise.

www.imedconsultancy.com

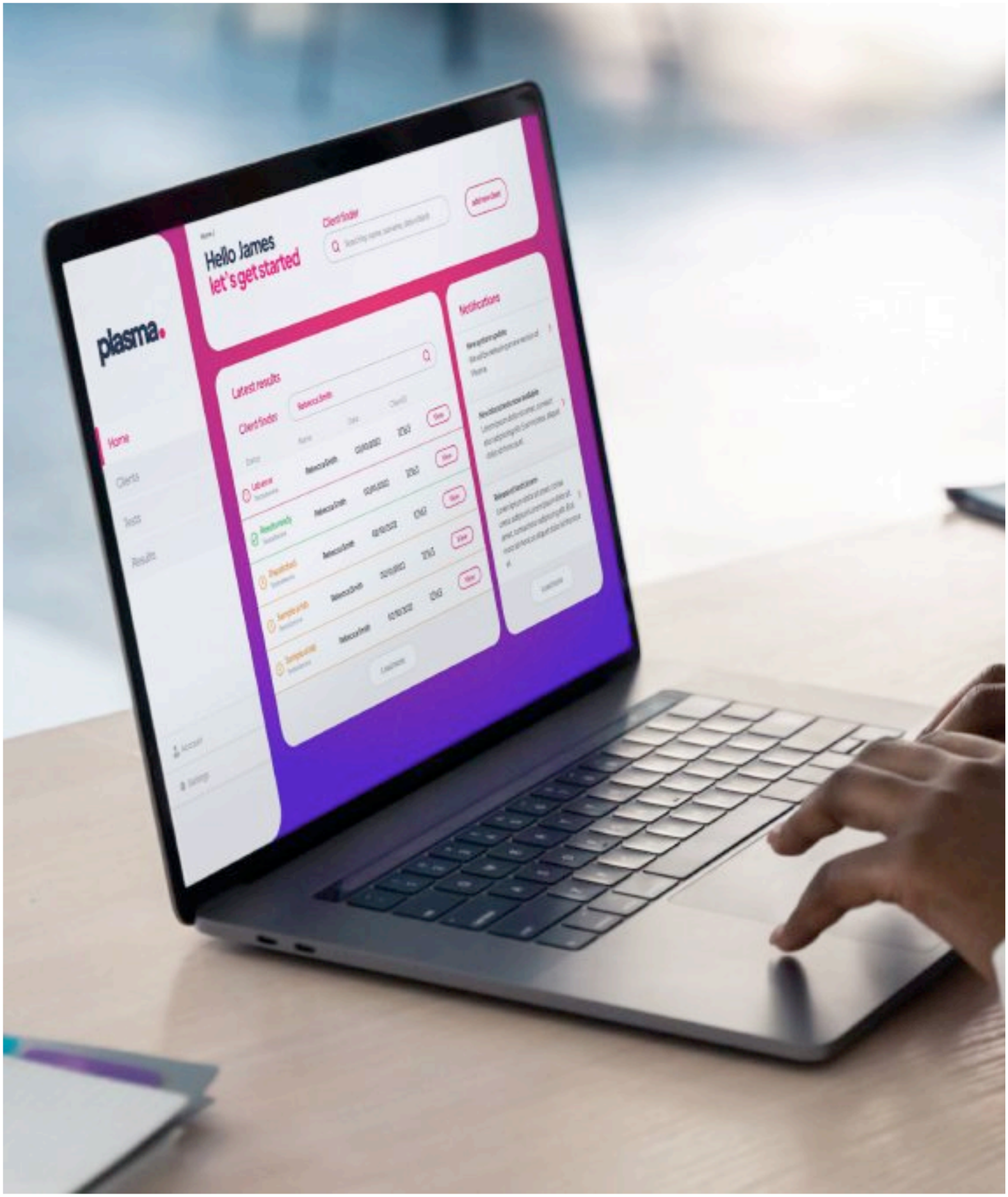
AT YOUR FINGERTIPS

FOR INSIGHTS INTO HEALTH OR FITNESS PERFORMANCE, MEDICHECKS SUPPLIES HOME BLOOD TESTS AND RESULTS WITH A PERSONAL TOUCH

People are increasingly taking control of their own medical needs, something that has become easier thanks to companies such as Medichecks. Over 21 years, the company has developed a world-class, simple-to-use service that allows people to request and complete blood tests at home. The tests cover a range of conditions, with advice given by experts such as NHS doctors. The process proved particularly helpful during the Covid pandemic, when Medichecks was able to provide blood tests for people confined to home. The company also offered essential support to the NHS for a pioneering pilot scheme exploring possible Covid treatments.

"I love the NHS and still work for it two days a week as a GP in south London," says Dr Sam Rodgers, Medichecks' Chief Medical Officer. "It is excellent at providing medical care for patients and can utilise a phenomenal range of specialist clinics and medical professionals, but it could also be supported in areas such as digital health by companies like Medichecks. The private sector has a record of offering digital innovation at speed, and we can work with the NHS over the next 75 years to the benefit of everybody."

Medichecks' origins predate finger-prick testing, with the company initially providing venous tests that could be ordered online and administered at home by a nurse. These


plasma.
Hello James
let's get started
Home
Clients
Tests
Results
Latest results
Notifications

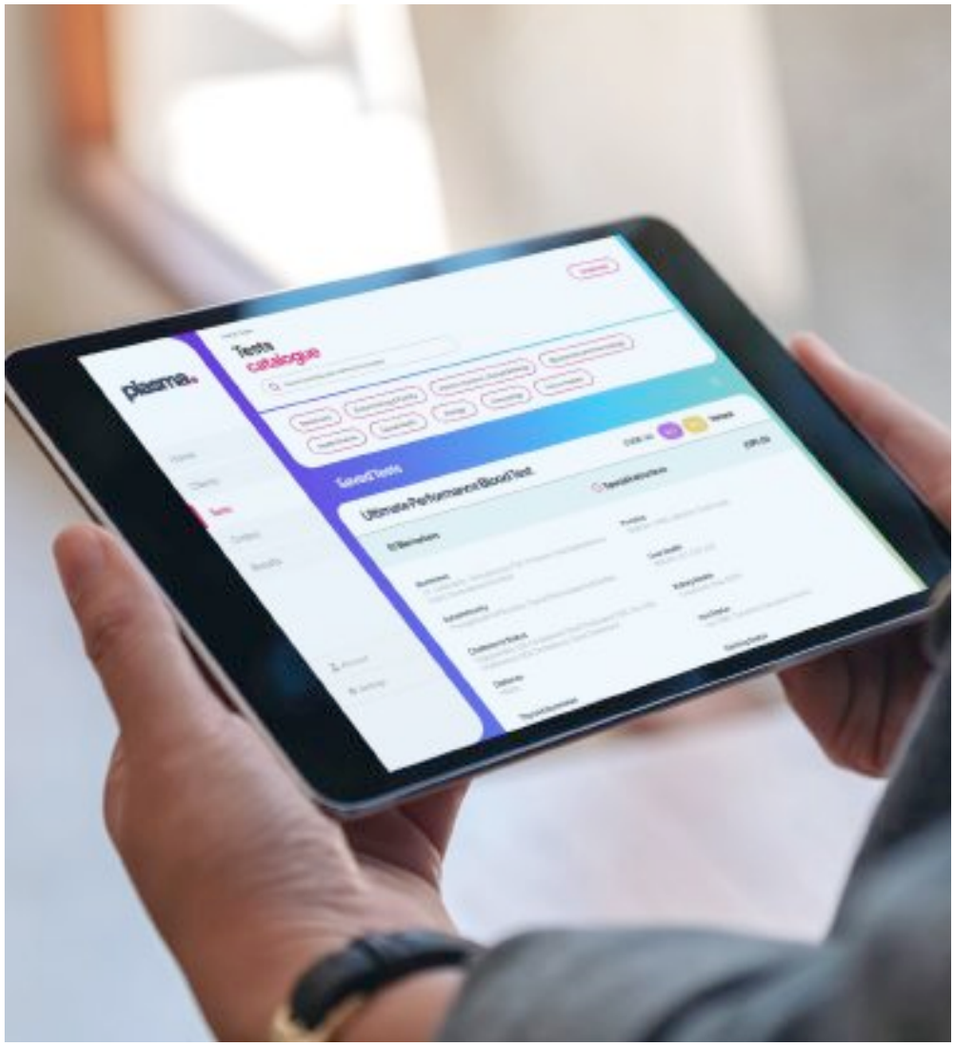
days, both finger-prick and venous tests are offered; some can be self-administered, while others can be carried out at home with a healthcare professional or in a clinic or hospital. The sample is then posted to one of three specialist labs used by Medichecks, and the results are forwarded to one of the company's doctors. The doctor will make observations and offer medical advice, and this report can be accessed along with the results through a simple-to-understand digital dashboard. "Over the decades, we have learned a lot about what sort of tests can and can't be done through the post," says Dr Rodgers. "We also work very closely with our three labs to monitor their performance over time, meeting with them regularly to ensure there are no ongoing issues we need to be aware of."

It is a service that has many potential beneficiaries, from patients who are monitoring long-term conditions to those who want a result before they visit the NHS with a health concern. Many customers – who include athletes – want to monitor their blood levels before seeking ways to improve the results through diet or lifestyle changes. "People are becoming increasingly better informed about their health and want to be more in control of their own medical situation," explains Dr Rodgers. "Customers use us for lots of different reasons, but the largest group is people who are seeking to optimise vitamins, minerals and cholesterol. However, we certainly pick up a lot of undiagnosed illnesses, which go back to the NHS."

Medichecks prides itself on delivering a user-friendly experience with exceptional customer service. When Medichecks teamed up with the NHS to help with Covid research, the availability of a supportive human voice for those taking a blood test at home proved to be particularly beneficial. This is of huge importance for patients who might be anxious about their health. "Of those who contacted our customer services during the NHS project, more than 90 per cent classed the experience as excellent or good," says Dr Rodgers. "Other companies do similar things, but we always pride ourselves on providing human contact to those who need it, and we have a big team trained in talking people through the blood test process."

During Covid, Medichecks was invited to support the NHS in a treatment pilot scheme that explored whether the antibodies in the plasma of people who

"We pride ourselves on providing human contact to those who need it"



had caught and recovered from Covid could help treat ongoing Covid infections. Around 250,000 emails were sent, inviting people to register in the scheme and asking responders to conduct a simple finger-prick test to capture the level of antibodies in their blood. Those with high levels of antibodies were invited to donate plasma for treatment. Part of the aim of the project was to analyse the response rate for people contacted by email by Medichecks, compared with those contacted by phone by the NHS. "Two-thirds of those who registered with us requested a test kit and 83 per cent of them returned it to a lab," says Dr Rodgers. "That was the highest response, as the average was two-thirds."

Dr Rodgers feels that Medichecks' digital expertise and high standards of customer service could be used to bolster and support critical NHS services in other ways. As an NHS GP, he is well-placed to identify potential challenges and inefficiencies in the organisation. He cites several examples, such as the annual blood tests required by patients with long-term conditions that require regular monitoring; this is something that could be automated, he says, saving GPs from time-sapping admin. Similarly, Medichecks could be used to provide blood tests and results for frail or immunocompromised patients who would otherwise have to travel long distances for appointments and spend time in phlebotomy departments, where they could be exposed to potential infection.

Medichecks could also be used in the pre-consultation phase of a GP surgery. "We are getting better and better at using computers to ask people their symptoms so we can narrow down the possibilities," says Dr Rodgers. "It might really help a GP surgery if rather than having to go through the pre-consultation process, where you give personal medical information to receptionists at a desk or over the phone, there was a more structured set of questions to answer. Then, if using that approach you are able to narrow down the possible issue to one or two conditions, you could arrange a blood test without even seeing a doctor. In that way, two or even three appointments become one. There are all sorts of ways we can fill those gaps that occur within the NHS to enhance the flexibility of the service."

plasma.medichecks.io

OLYMPIAN ACHIEVEMENTS

INNOVATIVE MEDICAL DEVICES DESIGNED BY THE ESTEEMED OLYMPUS TEAM ENABLE THE NHS TO PERFORM MILLIONS OF OPERATIONS WITH REAL-TIME PROBLEM-SOLVING

Most Britons have probably heard of Olympus because of its legacy of personal cameras, but many who work in healthcare will know that the brand has been producing advanced medical equipment for healthcare professionals for more than a century.

It is a story that began in Japan in 1920 with the creation of the highly advanced Asahi microscope. By the 1950s, Olympus had produced its first gastrocamera, following a request from a doctor at the University of Tokyo. Olympus now makes a series of groundbreaking endoscopes that allow surgeons to see inside the body with a previously unimaginable ease and clarity. There are more than 10,000 of those endoscopes in use in the UK today, giving the company a reasonable share of the UK market.

"Our products are extremely well received by the NHS, and we have won a Queen's Award for Enterprise on three occasions," says Kam Hunjan, Olympus' Regional Managing Director, UK and Ireland. "Over the past 20 years, our relationship with the NHS has gone from strength to strength. We have always been there whenever the NHS has needed us."

Olympus' medical equipment is used for a variety of procedures, including ear, nose and throat surgery, gastroenterology, gynaecology, neurosurgery, pulmonology, urology and general surgery. The company holds more than 17,000 patents and has produced more than 1,200 different types of devices.

In addition, Olympus equipment is estimated to perform more than 7.35 million colonoscopies in Europe each year, helping to detect colorectal cancer earlier, and more effectively, for hundreds of thousands of people. New equipment is constantly being developed in collaboration with medical experts, who know exactly what they require to ensure the best possible outcomes for patients.

Research and development of Olympus endoscopes and related devices takes place in various locations across the globe, and since 1987 the UK and Ireland have been home to 1,200 employees. The HQ in Southend-on-Sea, Essex, is where some of the most important auxiliary equipment,


ATTENTION
ESD PROTECTED AREA
Observe Precautions
For Handling Electrostatic
Discharge Sensitive Devices

such as power sources and trolleys for transportation, is designed and manufactured, serving not only the UK market, but also international territories. Highly technical equipment is also brought from around the world for repair in Southend, as well as at a smaller Olympus site in Bolton in the North West. Both locations became part of Olympus through acquisition, giving the company a global footprint and showcasing an ability to identify and absorb innovation and talent in the market.

Medical technologies from Olympus include the truly innovative. Consider the lens that can see not just inside the body, but also through blood, so a surgeon can observe what is happening during surgery without the need for constant cleaning. Another device has scissors that can cut and stitch internally, while further equipment allows a surgeon to open up the large intestine to see more clearly, helping to diagnose serious disease earlier. All this is at a time when prevention is a major focus of the NHS.

"Usually, you would need to acquire a sample and then send it to a lab and wait for the results, which could take days or even weeks," says Hunjan. "We have technology that attaches to the scope and expands the intestine, so a surgeon can identify early stages of cancer. This is really the final stage before we go into AI and robotics, which we will start doing more and more."

This type of equipment is expensive and sophisticated, which is why Olympus works closely with surgeons and hospitals to provide comprehensive training and support. "We do a lot of work both in terms of selling our products, but also with professional education," says Hunjan. "The company provides surgeons with new equipment for training purposes, which has full support, and we also schedule annual preventative maintenance interventions to ensure equipment is always in the best working order."

The company can remotely monitor equipment, too, to check it is running at optimum performance levels. It is a policy that means Olympus equipment is available for use to NHS patients 99.6 per cent of the time when needed, with on average 52 repairs completed each day.

"We want to help patients and staff by troubleshooting problems as they occur"

This gets to the heart of what Olympus promises to deliver – the maximum possible assistance to the patient, who is the ultimate beneficiary of all the company's work for the NHS. "It's always all about patients – one of our key mantras is 'patient safety comes first'," says Hunjan. "That is why we have a three-year, 'no questions asked' unconditional warranty on all our flexible scopes, because we want to protect the patient. We always keep an inventory of stock in case of breakdowns, and we can replace many parts in a couple of hours."

It means that when the NHS came to the company asking for ways to improve the use of procedure rooms, Olympus worked with digital platform provider Medishout in the development of an app that allows doctors and nurses to instantly report operational problems 24/7. "We want to help patients and staff by troubleshooting problems as they occur, so they don't need to cancel operations," says Hunjan.

The team at Olympus also use the app to supply training material that clinicians can access whenever they have the time. Overall, the platform has been well received and, according to Hunjan, users have reported that it has cut down on administration by on average 50 per cent.

"Internally, we always talk about patients – making sure they have the best experience," explains Hunjan. "We're always thinking of how we can help make that better.

"And it's this mindset," he continues, "that echoes our company purpose of making people's lives healthier, safer and more fulfilling."

www.olympus.co.uk

MORE THAN SKIN DEEP

AT THE CUTTING EDGE OF PROGNOSTIC TESTS FOR MELANOMA, AMLO BIOSCIENCES ENSURES PATIENTS RECEIVE TIMELY TREATMENT AND PEACE OF MIND

Melanoma is the fifth most common cancer in the UK and the US and affects thousands of people each year in this country alone. It is particularly pernicious as metastases occur anywhere in the body and are hard to detect. While the management and treatment is of an exceptional standard, the NHS is unable to identify those at low risk of disease progression who might require less intensive monitoring and treatment.

That was the problem Professor Penny Lovat, an internationally renowned melanoma specialist, set out to solve at Newcastle University in collaboration with colleague and business development expert Dr Marie Labus. "We wanted to answer a question," says Labus. "Many people presenting with early-stage melanoma had to be followed up for five years and go through invasive surveillance tests. Could we find a way to identify those at low risk to clear up space for the NHS?"

Through AMLo Biosciences, a company they set up in 2017, they developed the AMBLor test to identify those at low risk. "It was a novel approach and we wanted to find technology that would fit easily within the existing treatment pathway," explains Labus. "We discovered two protein biomarkers in skin, which, if they are present, show low risk. We developed a simple biochemical test to be used by a pathologist on the biopsy, identifying those people at low risk – reducing their anxiety and saving time and money for the NHS."

The AMBLor test can identify the 20 per cent of patients who fall into the low-risk category, allowing resources to be better targeted on the remaining 80 per cent. This would never have been possible without the insight and inspiration of AMLo Biosciences' CEO Labus, and Lovat, Chief Scientific Officer, who are two-thirds of an all-female executive team and hope to encourage other women into the science and medical industry. "It's important for girls and women to see us doing the things they aspire to," says Labus. "We are based in the North East, a socially deprived area, and we try to do as much as we can with local schools, talking to girls about science to show them what is possible. That's an ethos that runs through the company."

Some initial funding for the company's research came from two charities,

Melanoma Focus and the British Skin Foundation, and AMLo Biosciences and Newcastle University continue to work closely with both. Labus emphasises that a lot of important technology begins this way, and the company and university have pledged to give a percentage of any commercialisation income they receive to the charities so they can deliver further financial support to other projects.

The company has additional research-based products in the pipeline, including extending the AMBLor test to identify melanoma patients at higher risk, and tests for other more common forms of skin cancer, while a licensing agreement is in place to use the test in the US. "This is a cancer that occurs primarily in Caucasian people as a result of UV exposure – the paler your skin and the sunnier the country, the more at risk you are," says Labus. "By far the biggest market for us is the US, which is where we have concentrated our commercialisation efforts."

There are, however, no plans to relocate to the US. "This is UK technology funded by UK charities and UK investors. We want UK patients to benefit from it through the NHS."

www.amlo-biosciences.com

KNOWLEDGE IS POWER

EMPOWERING INDIVIDUALS WITH DIABETES TO CONTROL THEIR CONDITION LIKE NEVER BEFORE, DEXCOM'S REAL-TIME CONTINUOUS GLUCOSE-MONITORING DEVICES ARE TRULY LIFE-CHANGING

There are an estimated five million individuals with diabetes in the UK, of which up to 10 per cent have type 1. Until very recently, the only way to monitor glucose levels was by pricking the finger – sometimes up to a dozen times a day. That changed with the introduction of sensor technology, which is a huge leap forward for diabetes care that can be used by those with any form of diabetes.

Founded in the US in 1999, Dexcom has been available in the UK since 2010 with a vision of making CGM (Continuous Glucose Monitoring) available for all people living with diabetes. "We continually work in partnership with the NHS to support the diabetes community, so they have access to this technology," says Zoe Cholewa, Senior Medical Affairs Manager for the UK, Ireland and Benelux.

This is now a new emerging standard of care for diabetes, so nobody needs to prick their finger anymore. Through the updated NICE (National Institute for Health and Care Excellence) guidelines published in 2022, people with type 1 diabetes should now be offered a CGM device. Meanwhile, for those with type 2, the clinical evidence and use of sensor technology is emerging.

The CGM device works by placing a sensor beneath the skin. This measures interstitial glucose levels – the glucose found in the fluid between cells – providing a reading every five minutes. This reading is transmitted to a phone or receiver and can be accessed by up to ten people, allowing family members or carers and healthcare professionals to monitor glucose levels, including at night or while a child is at school. It will send an alert before potential intervention is required, prompting the patient to take preventative action.

The device shows how factors such as diet, exercise, lifestyle, alcohol and stress impact glucose levels. This provides peace of mind for individuals and families, enabling them to make treatment decisions, resulting in optimised glucose control and supporting the quality of life of people with diabetes. Additionally, it supports healthcare professionals to remotely monitor the patient between appointments.

A pioneering company in this market, Dexcom currently produces three products to meet the needs of all people living with diabetes, including connections to automated insulin delivery devices and other digital health platforms. By giving individuals with diabetes real-time information, they have more control over their lives and their condition, and can therefore limit the need for interventions by the NHS.

"We work closely with the NHS on many levels," says Cholewa. "I am a trained healthcare professional, as are many of my team, and we provide education and upskilling directly for patients and healthcare professionals. Through our work with the NHS and NICE, I am confident that the NHS sees us as a trusted partner in the diabetes world, rather than a company that just produces a medical device."

Dexcom has a market access team to support the increased use of CGM devices in areas where they are not currently being used, and is seeking to drive better outcomes for the NHS in a cost-effective way. "Ultimately, it is about the individual and improving their clinical outcome now and in the longer term, as well as improving quality of life so individuals with diabetes can live a full and happy life."

www.dexcom.com

ON THE BIG SCREEN

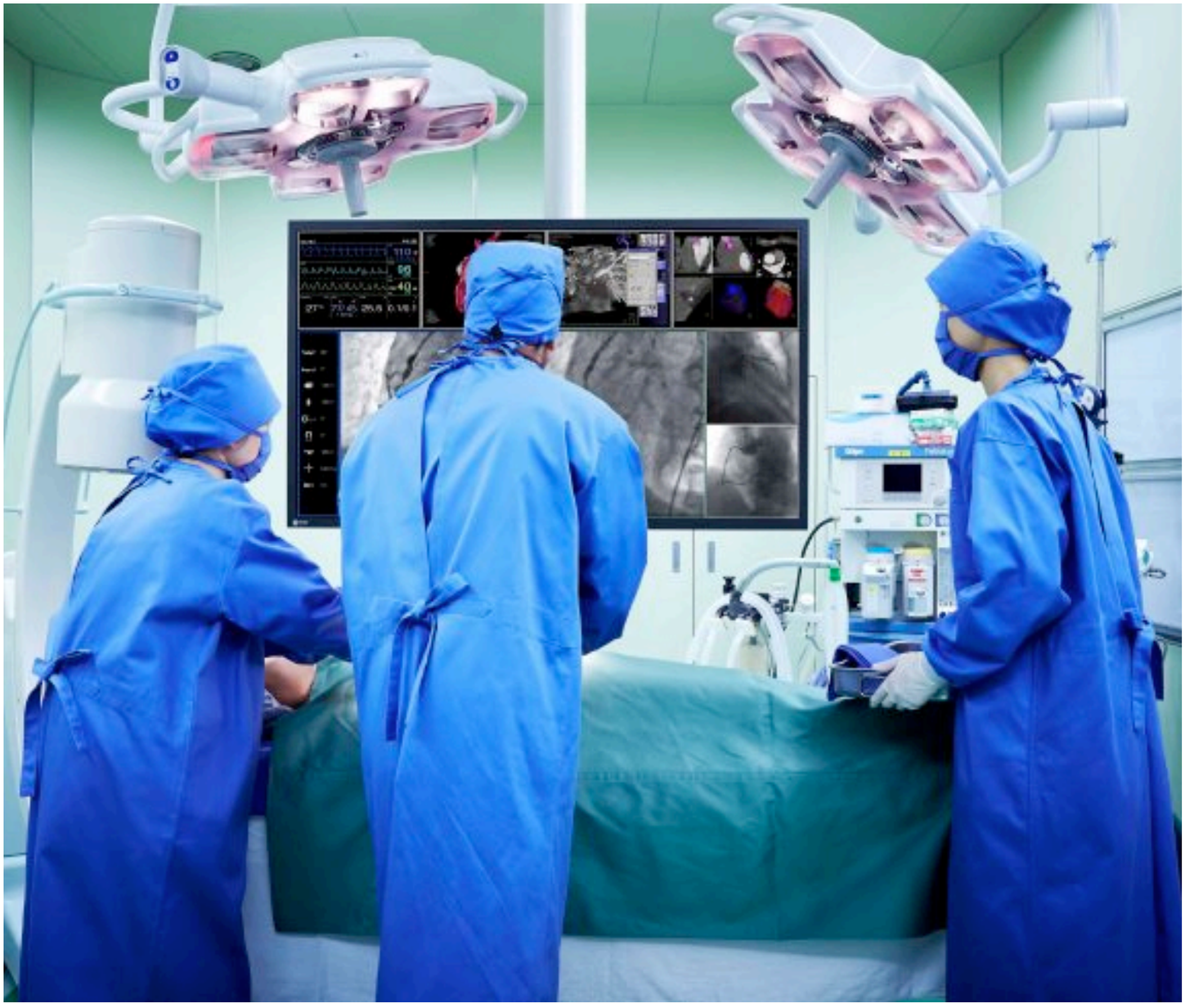
JAPANESE VISUAL TECHNOLOGY COMPANY EIZO DESIGNS HIGH-QUALITY MEDICAL-GRADE MONITORS THAT ALLOW CLINICIANS TO MAKE FASTER AND MORE ACCURATE DIAGNOSES

From the glamour of Hollywood to the functionality of healthcare, Academy Award-winning EIZO's visual technology has a diverse range of applications. The Japanese company's specialist monitors and output systems with trustworthy high-quality calibration are used in blockbuster film production, video, gaming, photography, graphic design, offices, air traffic control – and by the NHS in operating theatres, radiology and diagnostics. One factor that makes the equipment so valuable to healthcare practitioners is the consistency of the clarity of focus across an image, so clinicians can look at any part of an X-ray with complete confidence while making a diagnosis.

"Every diagnosis matters, so we need to provide a level of service that gives confidence to our healthcare professionals," says Colin Woodley, CEO of EIZO UK. "It is critical to get the correct diagnosis, and with the right screens issues can be picked up more quickly. It's not the first step in the healthcare process, but it creates the blueprint of what follows. We want clinicians to be able to look at the same X-ray at any time of day, whether at home or in the office, and be confident about what they see."

Headquartered in Japan, and now with representatives in 100 countries, the company originated in 1968 with the manufacture of black and white TVs, before moving into the desktop computer screen market and developing LCD screens in the early 1990s. Since 2002, EIZO has been applying its expertise to the challenges of healthcare. Over the past 15 years, it has supported the NHS on a successful transition from film X-ray to a purely digital diagnosis workflow. As well as designing monitors for the accurate study of X-rays, EIZO (meaning "image" in Japanese) has developed a completely integrated system for operating theatres so surgeons have all the information they require on a single screen. As cameras are incorporated, surgeons and clinicians can even make an accurate diagnosis remotely. EIZO provides ongoing support and advice to ensure clinicians get the best results from their equipment, which comes with a guarantee of up to seven years.

As well as helping the NHS make faster and more accurate diagnoses, EIZO supports the organisation's mission to reduce its environmental impact. EIZO has taken



sustainability seriously for decades, looking at zfriendly suppliers, to optimising facilities and processes to minimise the carbon footprint. This work was recognised by non-profit CDP, a global environmental reporting system for thousands of companies, which awarded EIZO with a top grade in 2022 for climate change leadership.

Healthcare makes up around 40 per cent of EIZO's UK business, with the company acquiring other businesses in the industry to support its offering, while remaining focused on monitors and visual output. "We acquire these companies to find the solutions to help surgeons and other medical professionals," says Woodley. "If everything is in-house, the NHS can come to us with a particular issue rather than going to multiple vendors."

Looking ahead, EIZO wants to be part of the healthcare planning process, so if the NHS is building new facilities or a new operating theatre the company is integral to the consultative process. "That's how we can help practitioners get the best from the tools and resources we make available to them."

www.EIZO.co.uk

MINING BIG IDEAS

GLOBAL PATENT INFORMATION PROVIDER MINESOFT PROTECTS AND PROPELS HEALTH RESEARCH AND DEVELOPMENT, WHILE INNOVATING WITH A FASTER AND EASIER-TO-USE DATABASE

Over the past 75 years, improvement in healthcare provision has been driven by innovation. That innovation is propelled by the patent system, which gives scientists and researchers the confidence to innovate in everything from medicines to medical devices, knowing their research will be protected by an internationally recognised system of patent law. Underlying this system is the searchable patent database provided by Minesoft, a UK company that has collected some 165 million patent documents from more than 100 different jurisdictions. The documents can be accessed by researchers, scientists, patent lawyers and patent courts.

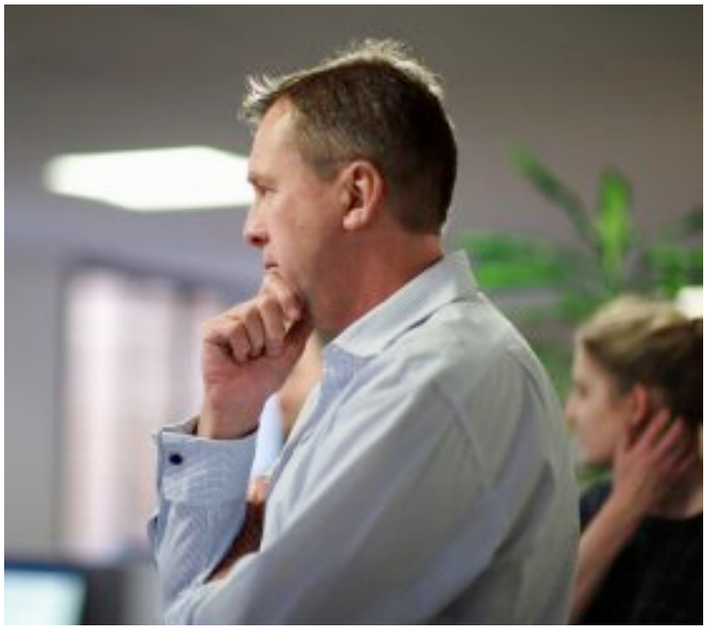
"My husband and I set up Minesoft 26 years ago around the kitchen table," says co-founder Ann Chapman-Daniel. "We both worked for patent information providers and thought we could do a better job ourselves. This was the start of the internet era, and we developed some products that were very popular in the technology industry, including pharmaceutical companies, where a lot of patenting takes place. Health is so important to national governments, and we were lucky that right from the start we were developing products that found resonance with the big pharma companies."

During Covid, the database was invaluable to researchers, who were racing to find a vaccine. It allowed scientists to see what research had taken place – sometimes in completely unrelated fields – and then use these findings to refine chemistry and drug delivery systems for the new vaccines. Patents expire after a fixed amount of time – usually 20 years, but it can be more for medicine as the research and testing can take so long. This allows the innovator to benefit from their invention before the drug becomes "generic", something that drives further innovation as it means that pharmaceutical companies need to develop new drugs to replace those patents that have ended. Minesoft is therefore a crucial part of a landscape that has developed a careful balance between innovation and security.

As a company, Minesoft continues to innovate and evolve. It has recently launched the new Minesoft Origin platform, a more streamlined and user-friendly version of its database, and has opened subsidiaries in Germany and the US, with an office in China planned. "Minesoft Origin has a more modern interface so for younger users it will feel more similar to other applications," says Chapman-Daniel. "It requires much less knowledge and training in patent information. Our databases are highly specialised – they need to be – but this will be easier to use. We are introducing more aspects of AI, machine learning and machine translation. We have developed patent summaries that you can understand without having a scientific or legal degree. It is aimed at the R&D community for day-to-day research."

This makes the company such a vital tool for researchers, as well as lawyers and others invested in the patent business. And it is by fostering such research and innovation that it will continue to support the NHS for decades to come. "Patents are an essential part of the health landscape," says Chapman-Daniel. "Drug discovery is all about patent ownership because they protect the budgets of the companies that are spending hundreds of millions on research. The only reason they can do that is because they know there is a system that will protect their invention. With the NHS it's not just drugs, it's everything else – hospital beds, PPE, scanners. These things are critical to the NHS, and the people that make and develop them are our clients."

www.minesoft.com



EYE ON THE FUTURE

FROM CLINICAL TRIALS TO DEVICE APPROVALS, OPHTHALMIC RESEARCH ORGANISATION ORA ACCELERATES NEW MEDICINES AND THERAPIES FOR NUMEROUS EYE CONDITIONS

Whether it is a simple eyedrop to treat itchy eyes or a radical genetic therapy that could help a previously incurable condition, all medical advancements require effective and reliable clinical testing. Without tests, proof of concept cannot be established, and regulatory approval will not be forthcoming. In the field of ophthalmology, Ora has become central to this process, bringing together pharmaceutical or medical device companies with physicians and patients to deliver clinical trials for a vast number of eye conditions.

Ora's specialists work with optometrists, ophthalmologists and patient advocacy groups to find patients. They devise and conduct tests, then work with regulators to gain approval, always ensuring that innovation will advance patient care. "We help clients with the design of studies, we do medical safety assessments and conduct the study using our network to recruit patients," says Dr Gus de Moraes, Ora's Chief Medical Officer, who is also a practising ophthalmologist. "We take the drug or device from molecule to prescription. We can even help a researcher develop an invention before it goes to trial, or secure the funding. It's all eye related. We assist in every step of clinical research to realise any idea that could benefit a patient."

Leveraging its UK and EU offices, Ora has been involved in more than 2,000 clinical trials and, over 40 years, has helped bring close to 100 medicines and devices to market. Part of the company's expertise is in developing "endpoints" – performance metrics gathered in specific trial designs that demonstrate treatment efficacy, safety and meaningful patient value. These more reliable endpoints can reduce the data needed and require fewer patients, accelerating timelines for bringing new therapies to market. Successful programmes include therapies and devices for the treatment of dry eye disease, ocular allergies, cataracts, glaucoma and retina diseases, such as macular degeneration.

To support research, the company has developed the Ora EyeCup, a device that attaches to a mobile phone, which can photograph the eye. Along with an app, it allows trial participants to provide true-to-life, real-time information on their eye health, which can be measured both subjectively and objectively. Dr De Moraes believes that many drugs that failed to reach the standards needed for regulatory approval could have reached the standard if there had been more data points collected through novel assessments such as that now made possible by the Ora EyeCup.

Alongside the eye specialists, optometrists and patient advocacy groups, Ora works closely with the NIHR (National Institute for Health and Care Research) in the UK to support the needs of the NHS. Research does not just help bring treatments to market, it also gives patients who take part in the trials much-needed access to therapies they might not otherwise receive. For those who cannot easily attend hospitals or clinics, the Ora EyeCup allows them to participate in research.

"We have a scientific advisory board that includes doctors who are key opinion leaders in the UK and who help us understand what will work in the NHS context," says Dr Doina Gherghel, Medical Director Europe. "We work with every element of the NHS, including the NIHR and the hospitals. It's a holistic approach looking at how we can get patients into a study in a manner that is the most beneficial and least inconvenient to them. The more studies we do, the more we learn, the better the science and outcomes."

www.oraclinical.com

INTELLIGENT SOLUTIONS

PINPOINT'S SIMPLE BLOOD TEST IS AT THE VANGUARD OF STREAMLINING CANCER DIAGNOSTICS USING ARTIFICIAL INTELLIGENCE

"It's been a long road to get here – and like every 'overnight' success it took ten years," says Giles Tully, CEO of PinPoint Data Science, whose primary objective is to reshape the performance of NHS urgent cancer referrals with an affordable AI tool, the PinPoint Test.

The current target for urgent cancer referrals is to be seen by a specialist within two weeks, but as PinPoint's Chief Medical Officer, Professor Sean Duffy, points out, "That's not just 14 days, it's 14 sleepless nights." PinPoint's mission is to create a more focused and efficient diagnostic pathway, reducing waits by determining a patient's risk of cancer so that those at high risk are seen faster, and those at very low risk can feel reassured and explore other possible diagnoses with their GP.

Based in the University of Leeds innovation hub, Nexus, PinPoint was founded in 2016, although the scientists involved began working together in 2011. Dr Richard Savage, PinPoint's Chief Scientist, asked Tully to join as CEO in 2017 to turn the concept of the PinPoint Test into a working reality. Savage suffered from cancer in his youth while Tully's mother died of the disease; both were resolved to stop bad things from happening to good people.

Talk of AI can seem far-fetched, the stuff of dystopian science fiction, but Tully says such misgivings are unfounded. "All AI means in this context is just a way of processing large amounts of complex data. There are no Terminator robots coming our way." While PinPoint's technology is based on machine learning, it is not the sort of "self-improving" algorithm deployed by Facebook, Google or Netflix, in which computers automatically refine an analytical model as new data comes in. "You can't do that in an area that's safety critical like this. You get the data, human beings look at it, checks are applied, it goes through a process of regulation and only then is it deployed."

What makes PinPoint unique is that it is a purely software-based solution. "Our technology upgrades the systems already in place," explains Tully. "Sometimes with new diagnostic systems you have to buy a snazzy new machine – but, naturally, the NHS has limits on capital expenditure

and procurement can take years. We have focused on using diagnostic infrastructure that already exists in the NHS. The PinPoint Test is a virtual blood analyser that processes data from samples, sent through standard pathology labs, and generates a single number: the chance that a patient has cancer."

The health-tech ecosystem that exists in Leeds facilitated the development of the test and opened doors to collaboration with the NHS and partners. These include the West Yorkshire and Harrogate Cancer Alliance, Yorkshire and Humber Academic Health Science Network, Mid Yorkshire Hospitals NHS Trust, Leeds Teaching Hospitals NHS Trust, and Labgnostic, among others. Supported by NHS England's national cancer programme and with funding from SBRI Healthcare and the government's Innovate UK, the PinPoint Test is nearing completion of its evaluation stage and is preparing to expand to four new regions across England.

"We've been so well supported by NHS partners," says Tully. "Even in the midst of a global pandemic, they have been there to keep pushing us forwards. The PinPoint Test is the result of real homegrown collaboration."

www.pinpointdatascience.com

SAFETY FIRST

SCIMED CONSULTANCY'S EXPERTISE HELPS MEDICAL-TECH CLIENTS BECOME REGULATION-COMPLIANT AND THE NHS REFOCUS ON EARLY INTERVENTION, ULTIMATELY ENSURING PATIENTS ARE SAFE

From contact lenses and false hips to software apps and MRI scanners, healthcare technology encompasses the broadest of fields. But these radically different technologies must be regulated in much the same way and all must pass particular critical tests for both European and international markets – namely, are they safe and do they work how the manufacturer promises? Helping companies to navigate these complex waters is SciMed Consultancy, formed by Alastair Selby, a former academic who brings a unique perspective to the complex nature of healthcare regulation.

"Because of my academic background, I have a good understanding of the clinical perspective," explains Selby. "We look at clinical evidence and biological safety. We work in these more niche spheres, and we do this successfully by recruiting people from a similar background. Former academics make good regulatory professionals because they are meticulous and understand the benefits of a rigorous scientific process that has been refined over 3,000 years. We have an emphasis on clinical evidence, and that has allowed us to thrive."

SciMed works with a range of partners, from established companies trying to ensure their existing technologies comply with tougher new European regulations, to startups and university spin-offs that are producing the latest innovations in software and nanotechnology. It is an extraordinary fact that some health apps on phones need to meet the same health-regulation requirements as a hospital bed. This reflects the dramatic way that health technology has changed in recent decades, forcing companies to adapt and adopt new processes.

"We support our clients to get their legacy products through the new regulation as well as those who are producing cutting-edge technology like software, nanomaterials and protein technology," says Selby. "We are very comfortable with novel approaches; in fact, one of the first things I worked on was a project that used protein from jellyfish to detect tooth decay."

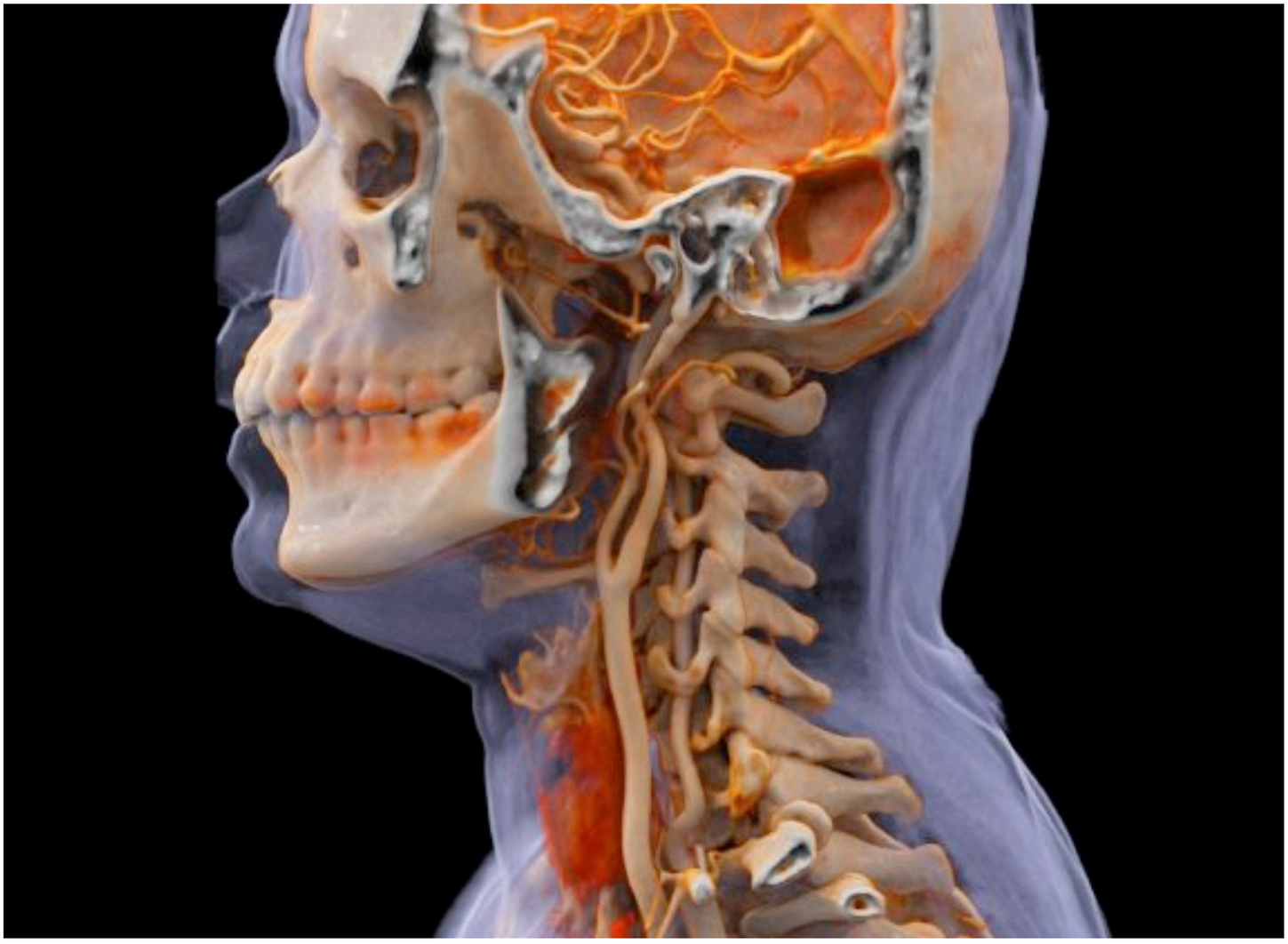
During Covid, Selby produced clinical evaluations for the ventilators used in Nightingale hospitals, while he also sits on all-party Westminster committees to help devise and guide the regulatory framework that will ensure best outcomes for patients. Indeed, patients most benefit from the work Selby carries out. "We are integral to the NHS as part of a wider supporting system, but our

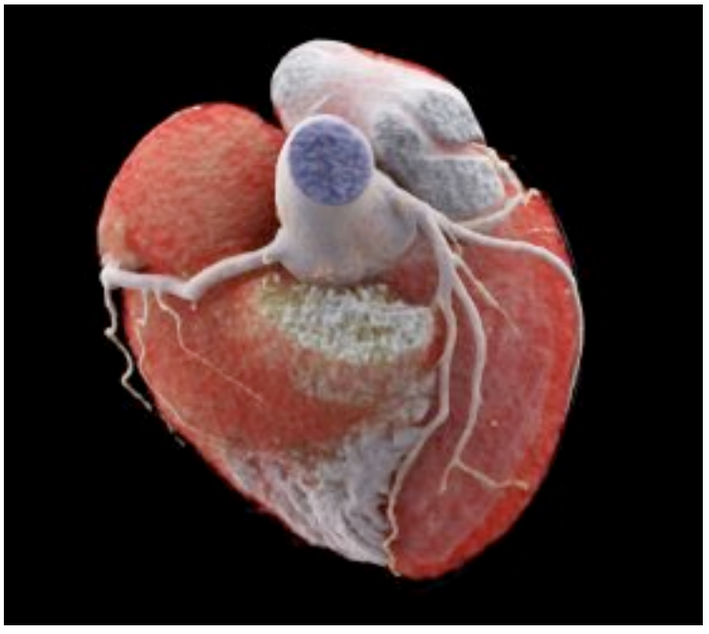
focus really is on patient safety," he says. "We ensure the products that patients use are safe and they do what they are supposed to do."

With an expert understanding of emerging technologies, SciMed is well placed to support the NHS's renewed focus on prevention and early detection. This change of approach will help the NHS through its next 75 years, but it will not be possible without the adoption of safe new technologies that emerge from pioneering research, whether by academic researchers at universities or the research and development teams of established pharmaceutical companies. SciMed's understanding of scientific principles and academia means the company can help guide these new technologies in the long, complicated and sometimes frustrating journey to market.

"We are going to see more and more cutting-edge products," says Selby. "A lot of the NHS's drive towards prevention and early diagnosis is based on these new technologies, such as the software products that analyse MRI scans to provide early diagnosis of neurological disorders, or looking at blood vessels to see the risk factors of a patient later developing cardiovascular disease. All in all, we are aligned to the direction of the NHS."

www.scimedconsult.com





BREAKTHROUGHS FOR EVERYONE, EVERYWHERE

FROM MEDICAL SCANS AND DIAGNOSTIC TESTS TO IMAGE-GUIDED THERAPY AND CANCER CARE, SIEMENS HEALTHINEERS IS FOUNDED ON A HISTORY OF INNOVATION

Medical devices have formed a cornerstone of Siemens since the German technology giant was founded in 1847. Since then, the company has shaped the development of medical technology, developing a comprehensive portfolio of tests and diagnostics, image-guided therapy and cancer-care solutions in the healthcare division that became Siemens Healthineers. It has some 70,000 employees across more than 70 countries pushing the boundaries of what is possible in healthcare to help improve people's lives around the world.

"We are one of the world's largest medical technology companies," says Ghada Trotabas, Managing Director of Siemens Healthineers, Great Britain and Ireland. "More than 70 per cent of all critical clinical decisions are influenced by Siemens Healthineers tech and 90 per cent of leading hospitals work with us." In the UK and Ireland, Siemens Healthineers has about 3,000 employees and six manufacturing sites, with two more in planning or construction.

"Radical changes are needed in the provision of diagnostic services to keep up with the increasing demand for care and to improve outcomes, while taking into account cost and scarcity of resources," says Trotabas. Siemens Healthineers works in partnership with the NHS to enable these changes. "I believe technology and innovation play a key role in making this happen," adds Trotabas.

Siemens Healthineers supports the NHS in overcoming challenges. Using AI, it creates intelligent devices to help improve productivity. It also creates technology that places less demand on infrastructure to enable the NHS to deliver care in the community. "As early detection of cancer is an NHS priority, we have worked on the lung-cancer screening programme since its inception to enable a mobile screening service with a state-of-the-art ultra-low-dose CT scanner," says Trotabas. "Bringing care to the patient in the community is fundamental to increasing access to care."

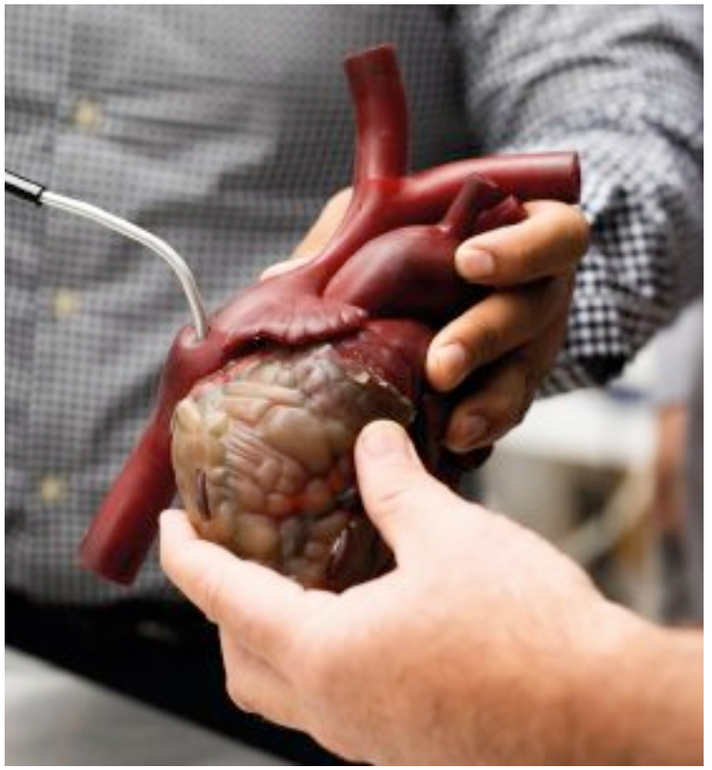
The company has three unique strengths that set it apart in shaping the transformation of healthcare. First, "patient twinning" provides the best description of a patient to support clinical decision-making, help predict outcomes or aid in providing the right therapy. Second, precision therapy uses cutting-edge technology to deliver individualised care for cancer, stroke and cardiovascular diseases.

"Our third strength is the glue between the two elements, namely our competence in data and AI," says Trotabas. "It links diagnosis with therapy to better guide treatment. It also allows us to leverage technical advancements on a larger scale, ensuring every patient benefits from the wealth of knowledge accumulated through diagnosing and treating millions before them." These capabilities have been strengthened over the years and continue to be reinforced daily. "As a company, we believe that mastering and interconnecting these capabilities is paramount to transforming healthcare," adds Trotabas.

Wrapped together, these capabilities support health systems to achieve operational excellence, transform care delivery and innovate personalised care. "We partner with the NHS in a number of long-term, collaborative engagements. In the UK alone, we have more than 20 Value Partnerships, a recent example being our 15-year partnership with Manchester University NHS Foundation Trust, dedicated to delivering exceptional care for the people of Greater Manchester.

"As the NHS celebrates its 75th anniversary, we renew our commitment to work side by side with the NHS to support its day-to-day operations and enable its strategic transformation objectives," says Trotabas. "Siemens Healthineers and the NHS share a common passion: enabling the best outcome for everyone. Everywhere."

www.siemens-healthineers.co.uk



HEART OF THE MATTER

ATRICURE'S COMMITMENT TO TACKLING HEART CONDITIONS SUCH AS ATRIAL FIBRILLATION OVER THE PAST 20 YEARS PUTS IT AT THE VANGUARD OF MEDICAL SCIENCE

Ohio-based AtriCure is at the forefront when it comes to tackling one of the world's most prevalent heart problems. Atrial fibrillation is a condition that causes an irregular heartbeat and affects millions of people worldwide, including 1.4 million people in the UK. "We're patient-focused," says Tracy Hopkins, AtriCure's Area Director UK and Ireland, "and we've spent the past 20 years developing products that can help patients with atrial fibrillation."

Symptoms include fainting and a racing heart that renders sufferers unable to carry out ordinary daily tasks. Although mostly associated with old age, it can affect younger people, too. "One out of every four people over 65 years old will likely develop this disease," says Hopkins. "But it can affect certain young people, too, where the heart is under constant strain and other risk factors."

Since it was founded in 2000, AtriCure has exclusively concentrated on treating this condition. "We're the only company that is fully focused and committed to fighting against atrial fibrillation. That's where all our efforts go, into clinical research, and education and awareness programmes."

This dedicated approach has led to the development of several tools that have transformed the lives of countless people in the UK and around the world. "We have devices that ablate cardiac tissue, either using cryo[genic] energy or radio-frequency energy," says Hopkins. "We're proud to have devices more efficient, more secure and less invasive than before." There's also the highly successful AtriClip, a clip implanted onto the heart to safely exclude the left atrial appendage, which is widely used in heart centres and hospitals throughout the country.

The popularity of these existing devices means AtriCure can focus on creating new, breakthrough solutions to help reduce the burden of atrial fibrillation. "We're committed to innovation and investing in research and development," says Hopkins. "Our team is always looking for more effective, less invasive and safer devices that can fit with new treatment methods." Thanks to the hard work and dedication of the team at AtriCure, the impact of this condition that affects so many will be lessened with each passing year.

www.atricure.com

CROSSING NEW FRONTIERS

JOHN FLORENCE, SPECIALIST PROVIDER OF CHILDREN'S ORTHOTICS TO THE NHS, HAS SET ITS SIGHTS ON A GAME-CHANGING INNOVATION

"We are the only specialist provider of children's orthotics in the UK," says Trevor Watkins, Managing Director of John Florence. "With over 50 years of uninterrupted service to the NHS, we are the established leaders in our field."

Since 1963, the company has been creating custom, handmade, high-quality, lightweight orthotics for children and young adults with a range of disabilities. "Our mission is to improve quality of life by providing the most outstanding, innovative and successful orthotic solutions."

With decades of experience, John Florence has gained a reputation as a first-choice provider in the South East and London, including being the contracted provider for leading children's hospitals such as Great Ormond Street. "The NHS has enabled people to achieve better outcomes in life because of what we've done in partnership," says Watkins. "We have thousands of success stories."

Despite being a pioneer in design and innovation, the company is keen to treat more people than it is currently able to because of patient pathway restrictions within the NHS. "We treat around 3,500 patients a year, but there are many thousands more young people in the UK who don't get access to the treatment we can offer. The NHS structure needs to modernise further and improve its patient pathway for orthotic services."

John Florence has three targets for growth to develop in partnership with the NHS. First, the creation of specialist centres across the UK, triggering "a comprehensive treatment plan that would take every child into a pathway to maximise their potential". Second, improved education and sharing of knowledge, such as participation in scoliosis research and teaching, to improve outcomes, "the result of which would be a far better experience for the patient and economically more attractive for the NHS". And third, a focus on technological advancements.

The company is moving in the right direction, having received, in partnership with Sussex University, an EPSRC (Engineering and Physical Sciences Research Council) grant of €1 million to create SmartSensOtics, a pioneering product demonstrator of a unique limb shape-sensing image and measuring system. Further funding is being sought to bring to fruition this world-beating idea. "It's a game-changer," says Watkins. "It will help the treatment of millions of people around the world, including in the NHS. We need to drive that change."

www.johnflorence.com

INFECTION PREVENTION

PREVENTING POTENTIALLY LIFE-CHANGING HEALTHCARE-ASSOCIATED INFECTIONS, NANOSONICS DEVELOPS AUTOMATED DISINFECTION DEVICES THAT ARE FAST BECOMING THE GOLD STANDARD

Hospital-acquired infections are a major challenge to healthcare systems throughout the world. Patients in hospital are already vulnerable so reducing their exposure to infections is paramount. This would not only reduce the overall strain on the NHS, but also improve the quality of care. A pioneer in infection prevention is Australian company Nanosonics, inventor of the groundbreaking trophon technology that provides simple and effective automated high-level disinfection of ultrasound probes, ensuring they can be used safely for patients and staff alike.

Founded in 2001, the company is "a global leader in infection prevention," says Ellie Wishart, Nanosonics' UK and IE Medical Affairs Manager. "We have a mission to improve the safety of patients, clinics, staff and the environment by transforming infection prevention through the introduction of technology. We have nearly 30,000 devices installed globally that are used to protect 90,000 patients every day, with over 1,200 devices deployed across the UK."

Nanosonics' innovative trophon2 device, launched in 2018, is compatible with 1,200 probes made by 26 manufacturers. It helps shield patients from the risk of infection and cross-contamination from the use of ultrasound probes. A study has shown that following manual high-level disinfection, 57 per cent of probes retain traces of blood contamination. However, a probe placed in a trophon2 device will be thoroughly disinfected in seven minutes. The probe is suspended in a machine that dispenses a fine mist of hydrogen peroxide, which disinfects the entire surface. This process ensures that consistent efficacy is achieved every time, with sustainable by-products of oxygen and water contributing towards the NHS's commitment to achieving net zero. Nanosonics is constantly innovating, and in 2022 launched four new products designed to improve standards of care.

As it seeks to raise awareness of the importance of infection prevention, the company has developed specialised training and support. In addition to on-site and virtual training for the trophon2, Nanosonics hosts expert-led workshops and study days. E-learning is offered, alongside support for users, and every customer has a dedicated account manager and access to a team of clinical experts. "We really want to promote best practice," says Wishart, "and deliver improved standards of care."

www.nanosonics.co.uk

FOOD FOR THOUGHT

NETWORK AND THINK-TANK NUTRITANK IS FULFILLING ITS MISSION TO GET DIET AND LIFESTYLE INTO HEALTHCARE TRAINING

Poor diet is the leading risk factor associated with death in the UK, yet nutrition and lifestyle medicine are not formally taught in most medical schools. Dr Iain Broadley and Dr Ally Jaffee are determined to change that. In 2017, while still medical students at Bristol Medical School, they founded Nutritank, an evidence-based information hub and professional network of like-minded individuals who are passionate about nutrition and lifestyle medicine. "Often we're overmedicating for conditions that ought to focus on self-care and nutrition," says Broadley. "Evidence shows that helping patients manage their conditions can reduce the medication they need, in some instances putting conditions like diabetes into remission, empowering patients and giving them hope."

As part of its commitment to instigate change, Nutritank worked with Jamie Oliver to initiate a nutrition clause in the NHS Long Term Plan, and helped launch an undergraduate nutrition curriculum, which is being adopted by UK medical schools. "Nutritank has provided thousands of medical students and junior doctors with nutrition and lifestyle medicine education that they wouldn't have received as part of their formal training," says Broadley. "We've given them the tools to make changes within their communities."

Two-thirds of UK Medical Schools now have Nutritank Society branches, which promote the need for nutrition medicine training, and there are more than 20 junior doctor ambassadors nationwide. It is about connecting people and organisations "so they can become more proactive. You don't have to be an expert to initiate change. You just need a great team, do your research, identify problems and help find solutions," says Jaffee.

Having received a clutch of awards for raising awareness, including the UK government-launched Diana Award in 2021 and Downing Street's Point of Light award in 2022, and supported by more than 20,000 social media followers and newsletter subscribers, Nutritank is determined to continue shaping the nutrition and lifestyle medicine agenda for patients and practitioners. "We need the stakeholders and bodies that rate hospital trusts to recognise the need to provide healthy food environments, including the food we serve and the education we give," says Jaffee. "If you want to meet people like us who are working to this end, Nutritank is the place for you. We're all leaders of tomorrow, so let's start now."

www.nutritank.com

THE SMOOTH ROAD TO REGULATION

OMC MEDICAL SPEEDS UP REGULATORY APPROVAL, TAKING MEDICAL DEVICES TO GLOBAL MARKETS OFTEN IN LESS THAN THREE MONTHS

The medical device industry is one of the world's most complex sectors, and manufacturers need a trusted partner to navigate challenging regulatory landscapes. OMC Medical helps clients attain global regulatory approvals for such devices, ensuring the most innovative products reach patients with minimal delay.

"Without informed guidance, regulatory approval in the world's major medical device markets can take from three months to two years to attain," explains OMC Medical's founder and CEO, Gayathri Ganesan. "Our mission is to support clients by always following our motto, 'Breaking Barriers for Complex Markets'. We liaise directly with regulatory bodies, opening the gate for speedy compliance, often in less than three months." In addition to regulatory compliance, OMC offers a one-stop shop, supporting clients with regulatory approvals, translation and quality compliance globally.

Ganesan founded UK-based OMC in 2020, in response to the twin challenges of Brexit and the global pandemic. "It was a full-on experience. Numerous companies wanted to sell into the NHS supply chain at a time of high demand and intense complexity. We were able to help companies comply with the necessary regulations and maintain the supply chain at a challenging time for the NHS."

Ganesan's inspirational stewardship of OMC has prompted Harvard University to invite her onto its prestigious Emerging Women Executives in Health Care programme. It is fitting recognition given that OMC partners with some of the world's most innovative medical device manufacturers. One client, Samphire Neuroscience, is bringing to market an innovative headband that utilises transcranial direct current stimulation to alleviate premenstrual symptoms. Another client, Caretaker Medical, is pioneering remote monitoring systems that enable healthcare professionals to continuously monitor patients' vital signs without constant close contact, cutting down on the risk of cross-infection.

Both companies are placing their trust in OMC to help deliver vital regulatory approval to produce technology that will transform lives. "When companies trust us to help them navigate these complex landscapes, I feel very proud," says Ganesan. "I'm also very proud to support the NHS and healthcare professionals around the world to improve the environments in which they work and enhance patient outcomes. It's the right thing to do and we want to do the right thing."

www.omcmedical.com

THE FAST TRACK

BRINGING TOGETHER MEDICAL RESEARCH AND BUSINESS, THE P4 PRECISION MEDICINE ACCELERATOR PROGRAMME HAS ALL THE TOOLS TO SPEED UP INNOVATION

As Chair of UCL's Institute of Precision Medicine, Dr Phil Beales recognises the immense potential of personalised medicine. To this end, Dr Beales co-founded the P4 Precision Medicine Accelerator Programme in 2018, working alongside Nathan McNally, Health and Life Sciences Director at Capital Enterprise, a network of startup experts accelerating the UK's tech ecosystem.

"The P4 programme seeks out leading MedTech startups, leveraging a powerful network of mentors, investors and academics to support them as they scale in the UK and internationally," explains McNally.

As an accelerator, the programme provides crucial resources, such as workshops, regulatory advice and trial opportunities, to researchers and entrepreneurs developing innovations in the fields of precision medicine and cancer tech – innovations that are key to the future of the NHS. "Dr Phil has spent his entire career at the forefront of medicine and is dedicated to bringing the next generation of breakthrough medical technologies to market," says McNally. "So it's really driven by a zeal for science, as well as the desire to make a difference in patients' lives."

The P4 programme has established itself as one of the most promising MedTech accelerators in the UK. Since 2019, alongside its Cancer Tech Accelerator, it has supported more than 170 projects, which have raised £140 million in funding.

One of its success stories is Panakeia, a "multi-omics" startup behind PANProfiler Breast, which targets breast cancer. Founded by Pahini Pandya and Pandu Raharja-Liu in 2018, the company applied to the programme and has developed an AI platform that analyses digital images of routinely collected tumour samples and extracts information not visible to the naked eye about the molecular properties of the cancer; it then recommends the appropriate treatment approach. "This platform can offer biomarker results in mere minutes instead of the several days or weeks taken by conventional lab tests," says McNally. Panakeia has future products for bowel and lung cancer in development.

"Most of the companies on the P4 accelerator aim to develop products which can be used by or in conjunction with the NHS," explains McNally, "so we are supporting them with the goal of improving NHS services and keeping the NHS at the forefront of medical innovation and delivery."

www.p4precisionmedicine.co.uk

A COMMON LANGUAGE

FROM SYMPTOMS TO MEDICATION, SNOMED INTERNATIONAL'S STANDARDISED CLINICAL VOCABULARY MAKES THE GLOBAL EXCHANGE OF MEDICAL INFORMATION CLEAR, COMPREHENSIVE AND CONSISTENT

The need for a universal digital clinical language has been prompted over the past couple of decades by an increase in international healthcare and research collaborations, and the sharing of digital records and data analytics. In response, not-for-profit SNOMED International, which determines global standards for terms to improve health worldwide, has developed SNOMED CT – a systemised nomenclature of medicine for clinical terms.

"SNOMED CT assigns an internationally recognisable code to a healthcare term," says Don Sweete, CEO. "The name of a condition, for example, often has several synonyms in the same language and equivalents in other languages. Synonymous and equivalent terms are assigned the same code. Its semantic network also acts like an ontology, so the codes are classified, and their relationships identified, which adds further context and capabilities to the data."

The UK is a founding member of SNOMED International, which was set up in 2007. Today, the organisation has 48 member countries and regions, and has issued more than 30,000 affiliate licences. NHS Digital oversees SNOMED CT in the UK. It now has 350,000-plus clinical terms and is integrated with over 20 other clinical terminology and classification systems, making it the leader in the field.

"The NHS is a huge part of SNOMED's success story," says Sweete. "As a national, patient-focused service with strong international connections, it has been pivotal in leading and collaborating with other members. And the mandatory implementation of clinical terms across the NHS has provided a tangible, real-world demonstration of its many benefits, at scale."

The accuracy, universality and interoperability of the vocabulary of SNOMED CT facilitates a safer, more effective and collaborative approach to healthcare. It benefits patients, healthcare providers, policymakers and stakeholders, particularly when used to record, share and compare patient information. It has been implemented in clinical, laboratory and scientific research, in data entry, integration and exchange, as well as in management, population and point-of-care analytics.

Moving forward, SNOMED CT's ontology and machine learning will work together as a necessary precursor to effective AI. From this, emerging software with AI capabilities can extract, analyse and utilise structured data to further benefit global healthcare in the future.

www.snomed.org

“No society can legitimately call itself civilised if a sick person is denied medical aid because of lack of means”

Aneurin Bevan

CHAPTER 10

CARE AND SUPPORT

A STUDY IN SOCIAL CARE

A NEW PROGRAMME LAUNCHED BY THE NATIONAL INSTITUTE FOR HEALTH AND CARE RESEARCH AIMS TO HELP INFORM DECISIONS ABOUT THE PRESENT AND FUTURE OF THE SOCIAL CARE SECTOR

Faced with the challenges of an ever-growing population, successive governments have attempted to address calls for investment and reform in the social care sector. However, as Oonagh Smyth, CEO of the adult social care workforce development body Skills for Care, acknowledges, while financial support is welcome, the scale of the challenge is considerable.

"Support for local authorities to improve capacity in social care will help ensure that we can attract and keep more of the right people with the right skills," she says. "This is vitally important because our latest figures show that there were around 152,000 vacancies on any given day in 2022 to 2023. Improved capacity ultimately means a better experience for the people who draw on care and support."

One organisation aiming to deliver rigorously reviewed information on the industry's needs is the National Institute for Health and Care Research (NIHR). Established in 2006 to fund, enable and deliver health and social care research, the NIHR is funded by the Department of Health and Social Care and is a research partner of the NHS. This year, the institute launched a new £10 million funding programme focused on social care research.

The new initiative, entitled the Research Programme for Social Care (RPSC), has been established to fund research that generates evidence to improve, expand and strengthen the way social care is delivered for users of care services, carers, the social care workforce and the public.

ABOVE AND OPPOSITE
The NIHR's Research Programme for Social Care aims to help deliver the best possible service for the workforce and public alike

The programme is being led by Professor Martin Knapp, who is also Director of the NIHR School for Social Care Research, and Professor of Health and Social Care Policy at the London School of Economics and Political Science.

"The launch of this new programme highlights NIHR's commitment to funding the research we need to improve social care," says Knapp. "I'm excited to work with people who draw on social care, carers and social care professionals across the sector to tackle the challenges we need to address with innovative new research."

RPSC will fund research focused on improving social care for both adults and children, and support is available for a wide range of social care research topics and research designs. The programme is just one element of NIHR's continued focus on building and improving social care research, and stands alongside several other high-profile endeavours to provide evidence and support researchers and social care practitioners.

These include the School for Social Care Research, which is helping to develop the evidence base for adult social care practice in England, and the Social Care Incubator, which enables researchers to learn about adult social care, related research and the opportunities that exist for developing research knowledge, skills, networks and projects in the sector.

The NIHR also runs the Health and Social Care Delivery Research Programme, which funds research to produce rigorous and relevant evidence to improve the quality, accessibility and organisation of health and social care services.

If social care policy, investment and reform are only as good as the research that goes into them, then the work of the NIHR, and programmes such as RPSC, will prove essential in helping to deliver a social care system that can improve outcomes for the people at the heart of it.

FIRST-RATE CARE

WITH ITS DYNAMIC AND RESPONSIVE TOOL TO MEASURE CARE-HOME STANDARDS, RDB STAR RATING PROVIDES TRANSPARENCY FOR STAFF AND RESIDENTS ALIKE

"We offer a holistic view of care-home services, a nationally recognised symbol of quality and an independent validated opinion," says Sue Brand, founder and Managing Director of RDB Star Rating, referring to the evaluation of national care-home standards that she first developed more than 25 years ago, and which are seen by many as the gold standard for residential care today.

Brand first became involved in the care sector when she walked into her first care home as a trainee nurse. She immediately felt this was an environment where she could have a productive and rewarding career. Her parents lived abroad, so she was used to being a guest in people's homes and felt an affinity with the residents who needed to be cared for but also wanted to maintain their independence. After developing managerial experience, she opened her first care home with the support of her husband, Lloyd, in the 1970s. This was followed by a further three, called Pembroke Hotels, for the retired.

From the start, Brand was passionate about residents being treated with dignity and respect and has spent many years campaigning to achieve this, using her significant experience to ensure that her objectives for quality are reached and surpassed. "I was lucky that the first care home I ever visited treated residents well, and that motivated and inspired me because I could see the staff had a passion for looking after people," she says.

Staff training has always been important to Brand. When she opened her second care home, she was surprised to find how little training material was available and went on to improve the situation with a typically innovative approach. Brand contacted Video Arts, co-founded by comedian John Cleese, which specialised in making workplace distance-learning training programmes, and commissioned the company to make four short videos with scripts written by Graeme Garden of *The Goodies*. It was decided that these four videos and manuals would include different aspects of care: Behaviour and Attitudes, Practical Aspects of Caring, Management, and Fire Prevention.

Brand became Chair of the East Sussex and Brighton & Hove National Care Homes

Associations in the 1990s. This was at a time when the care sector was in crisis following the implementation of the Community Care Act 1990, "a change in direction that saw the sector left to market forces", with "inadequate Local Authority funding". To address some of the serious issues, she founded the RDB Star Rating System in 1997, aiming to drive up standards in care and provide care homes with a nationally recognised symbol of "Quality". The importance of the scheme was to enhance transparency to prospective customers and purchasers of care, enabling them to make an informed choice even when at their most vulnerable.

Based in Sussex, Brand launched her dynamic, integrated system in Brighton as well as Blackpool, and it received a great response. "The care homes could see how they could improve, and they also had a desire to improve because it became competitive. Care homes wanted the same number of stars as their peers, especially if the local authority would give them more money for each star they achieved."

Care homes are benchmarked against more than 200 RDB care standards, with ten to 16 pieces of evidence collected for each standard. Residents and staff are actively involved in the assessment, through interviews and confidential questionnaires, to ensure that each home acts in line with regulatory compliance, and databases are developed to benchmark these activities.

Homes receive a report with graphs depicting their overall performance, as well as that for each standard. Successful homes receive a star rating between two and five stars and a plaque and certificate to display. Crowns are awarded for their property and additional services once they have achieved a four-star rating in care.

The benefits of the system are sustainability, consistency and reliability for everyone from residents to staff, to local authorities and the NHS. The reports, data and benchmark graphs drive quality improvement, which offers reassurance to banks and insurance companies, helps with marketing and the recruitment and retraining of staff. The rating also provides the public with up-to-date and reliable, monitored standards.

During the Covid pandemic, Brand wrote three books to expand on and update care principles and regulatory changes. "It allows us to present a whole package of support and training," she says. "The responsibility of running a care home is unbelievable now. Fire safety has become the responsibility of the manager, not the proprietors or the fire brigade, so it is exceptionally important. The books are readable and cover all areas of care, also helping new staff to understand what care is about, so they do not learn bad habits."

"The care sector evolves all the time, but quality assurance is a driving force of any good service"

Brand recognises the challenges facing social care and the NHS and is seeking ways to support the sectors. "I want to influence change through training," she says. "I am keen on developing and getting the care training into schools. This is where caring should start, as part of the curriculum, because we need to start training staff in this country for the future. It can be such a rewarding area to work in. There are great opportunities to help, so we will see how our role will develop."

RDB Star Rating has gone a long way towards providing a recognised standard of quality in an industry beset by regulatory changes and an uncertain future. It gives management and staff the confidence to ensure a care home is happy and effective.

The care sector evolves all the time, explains Brand, "but quality assurance is a driving force of any good service". She is clear that quality assurance needs to be suitable for each home and resident and should be reviewed annually. Without that underpinning, a care home will suffer.

"Ultimately, this job is about making sure people enjoy their life," says Brand. "If you train staff properly, they know how to do their job and they enjoy it, and that means care-home residents enjoy a better life."

www.rdbstar-rating.com

AN INFORMED DECISION

USING AUTUMNA'S COMPREHENSIVE DIGITAL DIRECTORY, FINDING THE RIGHT ONWARD CARE AFTER HOSPITAL HAS BECOME A MUCH SIMPLER PROCESS

One of the biggest pressures facing the NHS is the issue of discharging patients. It is estimated that one in seven patients – around 14,000 people – are ready to leave hospital but cannot be discharged due to a lack of available onward care. One company working with the NHS to alleviate this problem is Autumna, an online directory that lists the 26,000 registered later-life care providers in the UK. Autumna is already used by the public seeking care for themselves or a relative, but it has now been expanded to support the NHS more directly.

"We have developed a tool for NHS discharge teams called DAD – Dashboard for Accelerated Discharge," explains Debbie Harris, founder and Managing Director of Autumna. "It automates the discharge process by automatically finding and contacting all appropriate care providers for a particular patient, with a shortlist of those with availability being returned within 60 minutes. DAD is currently being used by the NHS in Wales on a trial basis, as well as in partnership with a 'discharge to assess' care home in Kent."

Each care provider profile on the Autumna site has up to 240 data points that allow users to search for everything from public transport access to pet provision. It is free to use for care seekers, while the care homes themselves can subscribe to the service and provide additional information – often far more than is available on their own websites. Autumna also maintains a helpline (closed only on Christmas Day and Boxing Day), which takes thousands of calls a month from people who are seeking to navigate the complex, often emotionally charged and financially demanding social-care environment. "It is manned by experts, and we can support any questions relating to later-life care, from companionship and personal care at home, to dementia and end of life care in a residential or nursing home," says Harris.

"If you are looking for later-life care, most people simply don't know where to start," she adds, so Autumna aims to help people make an informed decision, having developed a shortlisting process that allows the user to follow a simple online assessment tool. At the end of this there is enough information to create a shortlist of the most appropriate care services. These

services are then asked to contact the user directly with further information. “It is a very tailored service, which uses the highly detailed database to filter not only by location, care needs, funding and timescale, but so much more besides.”

Always innovative, Autumna responded to demand from care seekers during the Covid pandemic by introducing the S.A.F.E. infection control badge for care providers to display. Autumna is also the only place where families can find comprehensive ratings for the food on offer through its CHOICE Dining accreditation. And there is more to come, with work already well underway on an environmental and sustainability accreditation.

Harris herself has worked in the care sector for more than a decade, but the idea for Autumna began when she was trying to help an aunt who was self-funding her care. “It is exceptionally hard to access advice and support when you are paying for your own care, which is the case for 49 per cent of the population,” she says. “We want to achieve our goal of allowing every care seeker to make a truly informed choice, and you can only do that with the right information.”

www.autumna.co.uk

THE BEST RECRUITS

FOUNDED ON UNDERSTANDING PEOPLE'S NEEDS, DOMICILIARY CARE PROVIDER AND RECRUITMENT SPECIALIST GRACEAGE CARE ACCESSES THE BEST NURSING AND CARE WORKERS

Despite qualifying as an architect and working for more than a decade in the construction industry, Adenrele Lateef Adeleke had always intended to work in social care. His marriage to Oluwabamibo Grace Adeleke, a registered nurse and diabetes specialist, provided an insight into the challenges around healthcare staffing, but Adeleke wanted to learn more, so he became a healthcare assistant in nursing homes, care homes, learning-disability facilities and hospitals. This experience helped him to set up Graceage Care, a Care Quality Commission-approved domiciliary care provider to various county councils, and recruitment specialist for the NHS, with Matrix SCM and GRI, supplying quality staff.

The company was founded in 2020, but Adeleke had been planning and thinking about it for six years. "We always had a vision of what we wanted to do, and we saw this as a long-term project," he says. "I started as a domestic staff member, moved to kitchen portering and hospitality, then became a healthcare assistant, working in schools, care homes and hospitals to understand the needs of people. Even as an architect, my designs have been towards supporting people and the community and, as a carer, I have seen first-hand the importance of care as a personal experience."

Graceage Care has developed an expertise in recruiting staff from overseas to work in the NHS and support the health service in areas where it is understaffed, which is a contributing factor to stress and burnout in the sector. Graceage Care has already established contracts to provide domiciliary care to several regions in the UK, with a presence in Colchester, Suffolk, Norwich and Hampshire. Adeleke's ambition is to extend in-home care to the rest of the UK over the next five years.

He cites the company's transparency and willingness to improve as one of its great strengths. This openness relates directly to Adeleke's experience working in care. "If anything happened when I was working as a carer, I learnt the importance of being honest," he says. "One time, somebody took a bad fall, and I was asked what I had witnessed. I explained exactly what I had seen, and we discovered a floor tile was not properly fixed. We were able to fix this and ensure nobody else got hurt."

Graceage Care trains staff to take a person-centred approach to care, with carers working alongside clinical experts and registered nurses. Staff are encouraged to live locally so they understand the area in which they work, and all care is modelled on the CQC's high standards to ensure that people in care have access to reliable, compassionate and well-led services.

Another advantage of Graceage Care is that it uses IT to reduce the costs and administrative burden of care. The platform is easily managed by the carers and puts all the complexities of care into a single holistic solution, customised to the needs of individual service users. It means they can understand exactly what care they are receiving, along with its cost and how each individual element fits into overall care-plan developmental goals.

"What we bring to the NHS is support for staff who are overworked," says Adeleke. "We want to provide staff at a lower cost to the NHS, to minimise risk and improve the safety and care for NHS patients. I have worked across the care sector and that has given me a very good idea of what I would like to achieve and what the NHS requires as it faces the next 75 years."

www.graceagecare.co.uk

A FAMILY AFFAIR

AS A FAMILY-RUN BUSINESS, HIGHPOINT CARE TAKES PRIDE IN DELIVERING TAILORED CARE TO EACH RESIDENT ACROSS ITS TWO MERSEYSIDE HOMES

Putting relatives into a care home is a difficult decision for many families. To make sure they are happy they have made the right choice, Highpoint Care Managing Director Katherine Patel has a simple criterion. "My mantra is that I want the homes we run to be so good that I would be comfortable enough to put my own parents there."

Since 2013, the company has been providing homes for vulnerable elders – and by "wonderful coincidence" it shares its tenth anniversary in the same year the NHS celebrates its 75th. Highpoint Care now operates two Merseyside sites, Damfield Gardens in Maghull and Colliers Croft in Haydock, looking after 129 residents who are staffed by a team of 140. Set in landscaped gardens, both homes are designed to be luxurious yet homely, with state-of-the-art facilities that residents can explore and enjoy.

As Highpoint Care is family run, the team empathise with the tough choices people have to make when it is time to think about care for their loved ones. "I can remember the guilt that my mum had when she put my nan into a care home," says Katherine. In time, however, the family drew up a regular visiting schedule and they could see that they had done the right thing.

Katherine's son, Kishan, is the Business Development Manager. "There are a lot of difficult emotions, including guilt, that families experience when putting their loved ones into care," he says. "It's that bit more reassuring that we are a smaller organisation, which allows us to focus on helping each individual get the personalised care they deserve. In the past, a lot of people probably ran care homes as property businesses, as opposed to healthcare businesses."

Recruiting the right carers can be challenging in tough times, but "we are creating a unique community of caregivers based on our values of teamwork, respect and continuous learning," says Kishan. "This special community pulls together for the sole aim of delivering outstanding relationship-led care and support to our residents."

Those who do have a career at Highpoint Care, adds Katherine, have a rewarding role that involves forming a closer emotional bond with clients than they would have, for example, in related careers in the NHS and private sector. "The work can be challenging, but it is so fulfilling. You know you are making a real difference to people's lives."

It is this personalised care alongside attention to detail that meant one resident who planned to stay for six weeks of respite care became a long-term resident. They had previously experienced loneliness.

A family member of another resident, who had resided at Colliers Croft for the last two years of her life, praises the care her mother received. "I can only say that the care given to my mum from day one until the day she passed away was exceptional. Mum enjoyed taking part in the activities and socialising. The care team are angels in my opinion and came to be regarded almost as family. I cannot praise highly enough the end-of-life care provided to my mum. It was outstanding."

The purpose-built properties on the two sites house over-65s and people with dementia, but Katherine remains open-minded about what the future holds for the homes. She hopes the government can give social care and those working in the sector the attention and recognition they deserve.

www.highpointcare.co.uk

CARING FOR OTHERS

KAREINN OFFERS A SMART SYSTEM FOR CARE HOMES TO PLAN AND RECORD RESIDENTS' PERSONALISED CARE, BASED ON REAL-WORLD NEEDS AND HANDS-ON EXPERIENCE

"We see ourselves as a service for the better delivery of care," says John Lanyon, founder of KareInn, which provides smart, collaborative digital care software to UK residential care homes. The technology helps care teams communicate and record the care provided to their residents, making it safer and more efficient.

Personal experience inspired Lanyon, who has a background in advising technology businesses, to set up the company. He was first a full-time carer for his mother, who had early-onset Alzheimer's, and then for his grandmother, who had vascular dementia; experiences that he says nearly broke him. He resolved to create technology that would make caring easier for others, whether family members or health professionals. Having spent 15 years volunteering with the Alzheimer's Society, notably as part of its Research Network, he also realised how difficult it was for research data to get translated into real-world use. So he set about building a team to achieve these goals.

The result was KareInn, which launched in 2015. Using the latest academic and clinical research, it supports residents and frontline staff, collects new data, provides accurate information for planners, identifies individuals' needs and preferences – as well as general trends – and offers reassurance to their families. "We provide personalised information at a carer's fingertips, so when they deliver care it's with the full picture," explains Lanyon. "Every individual has a dedicated care plan, including everything from their medical needs to their mobility to their nutrition and hydration requirements. Instead of this information sitting on a piece of paper in a manager's office, we make it available at the point of care.

"We can also use it to track changes – like a resident's weight – that will show deteriorating health and set up automatic alerts. And we provide personalised information such as 'Kenneth likes to be called Ken, and he takes his tea with one sugar', which makes the person being cared for feel like they're not just a patient but at home."

KareInn works with many partners, including the NHS, universities and charities. One of its collaborations was with the Friends of the Elderly charity and an acoustic monitoring systems provider, as part of the NHS's Digital Social Care Pathfinders programme. Wireless acoustic monitors were installed in care homes to improve resident safety. Results showed improved outcomes for residents, with a 55 per cent reduction in night-time falls and a 20 per cent reduction in hospital admissions.

The company faced its greatest challenge when the Covid pandemic hit, with care homes bearing the brunt. "It was an interesting time," says Lanyon. "We decided to double down on our work with existing customers. We also took the opportunity to rebuild and develop our systems with incredible functionality, to make them market leading and allow us to keep development going at a real pace. It gave us a good safe space and cemented our relationships with our core group of customers, who felt we understood their problems and challenges to an even greater degree than before."

Over the next five years, KareInn intends to look more closely at the predictive value of the data it collects for the care sector, individuals and academics. "I'm proud of what we've achieved," says Lanyon. "Caring for the Elderly isn't considered to be glamorous, and that's why it is even more satisfying that we have managed to inspire so much talent and enthusiasm for our vision of using data to modernise care delivery."

www.kareinn.com

STATE OF HAPPINESS

LIFECARE RESIDENCES NOT ONLY BUILDS RETIREMENT HOMES, BUT ALSO SUCCESSFULLY SHAPES NEW COMMUNITIES, BRINGING A NEW DIMENSION TO LATER LIFE

"The right home can make such a difference when it comes to quality of life," says Paul Harries, Executive Chairman of LifeCare Residences, a family-owned, independent company that specialises in creating luxury retirement apartments and building communities. "There can come a point," he says, "when a four- or five-bedroom home may no longer be the best place to live. We think it's important to offer manageable spaces of the highest standard."

It was during a trip to the US that company founder Cliff Cook, from New Zealand, became inspired by the retirement communities he visited. "He experienced what a retirement community could be like," says Harries. "The disparity between what he saw and what was available anywhere else was huge." LifeCare Residences was founded, in 2004, to offer that same level of experience in the UK. "We're an operator as well as a developer. It's about creating an environment that enables people to live life to its fullest."

With access to a restaurant, gardens, concierge service, lounge area, health club and social activities, as well as 24-hour care if needed, the lifestyle that LifeCare Residences offers has proved popular, with communities that have been established in London, Dorset and Hampshire. "The quality of our properties is equivalent to a five-star hotel," says Harries. "Great care has gone into creating these environments, and it's rewarding to know we have happy people living here."

As a testament to this, the company has won several awards across both the care and lifestyle sectors, including Care Home Awards winner in 2019 and Best Hospitality, Retail and Wellness Environment at the HealthInvestor Seniors Housing Awards in 2021 and 2022.

Many of the residents already have friends living within LifeCare Residences' retirement communities. However, help is available to those who find that moving to a new community can be daunting. It begins when someone chooses their apartment. They can bring their existing furniture to retain the style of their last home or choose to make a fresh start. LifeCare Residences works with local contractors to make the process of moving and decorating as easy as possible.

There is also a residents' committee, so everyone has a say in how the shared spaces are run. "It is up to individuals to decide how much they would like to join in," says Harries. "Some move in because of the social aspect and available pursuits; others will have an active social life outside the community. This is a world of independence – everything is completely optional."

Each place has a rigorous selection process for employees, who are seen as an integral part of the community. "We operate everything ourselves. Our staff are here because they buy into what we are doing," says Harries. With staff working on site 24 hours a day, it provides reassurance for relatives, especially those who live abroad. "If a resident's family is overseas, it is reassuring that they can just phone up the manager and check that everything is fine. Everyone looks out for each other. Your family member is in a good place, happy doing what they're doing."

Harries points out that moving to a LifeCare Residence is "about embracing a new phase of life. The greatest misconception is that people see it as moving into a care facility, but it's not that at all; it's about continuing to live the life you want to live."

www.lifecareresidences.co.uk

STELLAR PERFORMANCE

STELLARCARE'S UNIQUE NURSE-LED MODEL BRIDGES THE GAP BETWEEN CLINICAL AND SOCIAL CARE, ENSURING A HOLISTIC APPROACH TO HOME CARE

Following a diverse and successful career that had taken her from nursing in a cardiology ward into further education and then back to the NHS as a project manager, Stella Shaw realised she had reached a crossroads in January 2018. Her experiences across so many different areas of healthcare gave her multiple skills and also brought an awareness that there was room for improvement when it came to social care. With that in mind, she conceived StellarCare, providing nurse-led home care to the communities in the North West, where the company currently operates, ensuring that customers receive clinical attention as part of their care package.

"I wanted to develop a nurse-led model that is based on a Dutch model where they have the nurses delivering care in the community alongside care staff," explains Shaw. "There are cost savings because there are fewer admissions to hospital as disease can be identified early and the appropriate care given at the right time. People are living longer so they often have overlapping conditions that need clinical intervention, which is put in place in the home. People want to be at home."

The unique selling point of StellarCare, according to Shaw, is that it is a nurse-led care agency. "We have a care hub model with team leaders, seniors and care support workers, and we also have a clinical lead. That allows us to bridge the gap between clinical care and social care."

It is a system that has already transformed lives, with StellarCare staff able to offer daily care in the home depending on individual needs, but with the ability to monitor changes in health before problems escalate. The company has built close relationships with GPs, district nurses and therapy teams to develop a more integrated approach to social care; but carers are also able to act proactively and appropriately. Shaw cites the example of one patient who was experiencing dizziness. This was reported to StellarCare's clinical lead and the local GP, who then confirmed there was an infection and prescribed antibiotics, which StellarCare's carers then took to the patient – all within a day and without the need to involve the district nurse.

As well as being better for health services and patients, the innovative

StellarCare model is also good for staff. Shaw's expertise as an educator and project manager has created a system that provides staff with a model of progression, ensuring they can develop their skills through training and education. "We teach risk assessment and how to identify disease, and we have a blended learning approach, with online work, face-to-face learning and field-based competencies to fully demonstrate what has been taught," explains Shaw. "When employees have completed their 'competences in the community', they are assessed and the team leader works with them to constantly improve their skills, so we can continue to offer better care."

The StellarCare model has been applauded by the health authorities in which it operates, and Shaw now wishes to extend the service. "We have developed and successfully implemented our care hub model locally and now we are trying to expand the concept nationally," says Shaw. "I am now seeking to raise awareness of the concept so we can find people who can support a national model. We are creating a model that will continue to do good."

www.stellarcarenw.co.uk

MEETING A NEED

AT MARIA MALLABAND CARE HOMES, HAPPINESS COMES FIRST, WITH A FRESH APPROACH TO STAFF RECRUITMENT AND PERSONALISED LIFESTYLE PROGRAMMES FOR RESIDENTS

From the wealth of activities on offer such as indoor bowling and virtual cycling, to the "Hug on a Plate" menus inspired by favourite childhood meals, to the underpinning culture of treating people as individuals, it is clear that exceptional personalised care is at the heart of the Maria Mallaband Care Group (MMCG).

MMCG was founded in Leeds in 1996 by CEO Phil Burgan, who named the group after his grandmother. With more than 80 homes across the UK, the company offers nursing, day care, respite and palliative care, with a strong focus on dementia care. The homes often work alongside local NHS trusts.

"We want those living with us to know they can enjoy the next chapter in their life with opportunities and experiences provided by us that are over and above what was available at home," says Sally Harrison-Exton, Director of Lifestyle and Marketing. "We offer everything from one-to-one engagement, to events involving the local community. The focus is on mind, body and soul. We want to meet the needs of everybody living with us and make sure they enjoy every day – from taking time for conversation, to exercise and therapies, to clubs and activities."

MMCG's recruitment supports such objectives. Expert nursing care comes from the UK and abroad, while hospitality and entertainment staff are often from outside the sector. Flexible working helps with retention, and recruitment is aimed at a wider range of people than is normally found in social care. "We want to show that a career in this sector is an option," says Harrison-Exton. "You have a better work-life balance than in traditional hospitality and are providing food and entertainment for people who really value it.

"We want people to receive a high level of input. Hug on a Plate, for instance, offers recipes that mean something to each individual living in each home, reflecting them and the region in which they live."

Growth is achieved through the acquisition of existing homes from other providers, as well as constructing new homes. These invariably offer luxury accommodation and are purpose-built to deliver the best support, which includes a pioneering approach to dementia care.

"We have a new dementia lead and are introducing dementia ambassadors in our homes. Our staff training ensures we remain at the forefront of person-centred care. We get involved in research and pilot schemes with the NHS and always seek to innovate."

www.mmcgcarehomes.co.uk

A GUIDING LIGHT

AT ST CHRISTOPHER'S HOSPICE, END-OF-LIFE CARE COMES WITH A PRACTICAL AND COMPASSIONATE OUTLOOK FOR BOTH PATIENT AND CARER

"If you manage symptoms, make people comfortable, get them up and about and rehabilitate them, they can keep on living right until their last moments," says Helen Simmons, CEO of St Christopher's Hospice. The hospice supports 1.7 million people across five London boroughs, typically helping around 5,000 patients a year, more than 2,000 carers and offering bereavement support to nearly 2,000 people.

Founded on the three pillars "care, teach and research", education is key. St Christopher's has an international fellowship course and a multi-professional academy for worldwide education. It teaches essential skills to community leaders in countries where there is little palliative care. The UK, however, is "a leader in end-of-life care," says Simmons. "St Christopher's is known for being pioneering and bold, and we have a leadership role in this country as well. We are constantly researching to make sure we are fit for purpose for the future. Over the next few years, our focus will be on tackling inequalities within end-of-life care so more people have access to support."

St Christopher's looks after the majority of patients, and those who care for them, in their own homes. Simmons explains that this is the future of hospice care: people choosing where they want to be. The in-patient facility is used when symptoms are too severe to be managed in the home.

"Our vision is for a world where dying people and those caring for them receive the support they need, wherever and whenever they need it," says Simmons. "At the end of someone's life, they might have a lot on their mind. The question isn't just 'Where is your pain?', rather it's 'What matters most to you?' That might be seeing a pet for the last time, reconciling with somebody or even getting married."

Carers can receive one-to-one coaching from an ex-carer, join a peer support group, take a course or connect with a working group to share ideas about the support they need. St Christopher's also works with hospitals, community teams, district nurses, charities and care homes. This partnership helps to join up information between different bodies to make sure that everyone gets access to the care that is right for them.

www.stchristophers.org.uk

MAKING A DIFFERENCE

THE Q CARE ASSIST MODEL MEANS CARERS SPEND MORE TIME WITH FEWER PATIENTS, RAISING THE BAR FOR SOCIAL CARE

Social care faces more challenges than almost any other sector of industry, which is precisely why Amina Quraishi chose to leave a successful career in law to form Q Care Assist at the height of the Covid pandemic. Quraishi wanted to make a profound difference and felt she could use her professional experience and innate passion to improve social care. She is supported by her husband, one of the country's leading spinal surgeons, who has brought a deep understanding of healthcare and the NHS to the team. Within six months, Q Care Assist has had a significant positive impact on social care in the East Midlands, earning the support of the local university as well as local private and NHS hospitals.

Quraishi believes she has laid the foundations for a national change in how we deliver social care, with the focus on carers and their patients. "We believe we represent the next 75 years of social care and are going to bring a lot of change into the sector," she says. "We want to take pressure away from the NHS. Our local hospital here in Nottingham loves our service; we are going to help them release patients so they can be returned from hospital to their home where we will provide the social care, freeing up beds and services for other patients."

Central to Quraishi's vision is a desire to make both staff and clients feel more valued. Too often in social care, overworked carers are rushed from patient to patient. At Q Care Assist, carers' home visits are for a minimum of an hour, often extending to four or five hours, and they see only three or four different patients a week, thus building meaningful bonds. Alongside one of the best pay and benefits packages in the UK, there is a positive working environment, meaning Q Care Assist has been able to establish an exceptional record of recruitment and retention, while patients feel listened to.

"We want our carers to be part of our patients' lives," says Quraishi. "Poor mental health can be a big problem with the elderly, a generation brought up to suffer in silence. Life still has meaning after 80; these people are a treasure, and we can learn so much from them. We give them the time and attention they deserve."

Q Care Assist has already made a notable regional impact, but Quraishi is determined to enact change on a national level. She has started a campaign for social-care workers to travel for free on public transport, while the company's relationship with a nearby university will see students spend time working with Q Care Assist carers, then taking that experience to jobs all around the country. The company's model is scalable, and Quraishi wants to become a national business, moving from city to city.

"I came into a sector that is drowning because I really believe I can make a difference to social care in this country," she says. "Other people were complaining about the sector but not doing anything. We have done our research; we know exactly where the problems lie, and it's always been a passion of mine to give something back. I felt I could use that passion in my business because it becomes infectious. We want to show what an exemplary social-care company can look like."

www.qcareassist.co.uk

GETTING THEIR VOICES HEARD

SEA RECRUITMENT'S MISSION IS TO PROVIDE CARE AND SUPPORT SERVICES TO DEAF CLIENTS, THROUGH A WORKFORCE WHO USE BRITISH SIGN LANGUAGE AND UNDERSTAND THEIR CHALLENGES

As somebody who has been deaf since birth, Hayley Thornton has a deep awareness of the barriers deaf people face in everyday life. Along with founder Suzanne Robinson, Thornton is a Director of SEA Recruitment (known as SEA), a company with around 150 employees, of whom around 75 per cent are deaf. They deliver expert caring and support services for deaf people who communicate through signing and have additional needs.

"Being deaf myself, I am very passionate about our work, as being deaf is part of my identity," says Thornton. "We provide carer services for deaf people who have needs such as dementia, learning disabilities and autism. All of our staff, whether deaf or not, use British Sign Language and work with both children and adults in many settings."

Robinson founded this unique company in 2009 – the name derives from the phrase "Signing Enabling Access" – having spent her career as a social worker. Her first manager, who was deaf, was Thornton's mum. The experience inspired Robinson to work with deaf people, and later to start SEA Recruitment to ensure deaf people receive the care and support they need from people who can sign and understand the barriers they face.

The organisation works across the North West and South East, recruiting carers from among the deaf community – some of whom are former service users. Robinson and Thornton provide accessible and empathic training for deaf staff, resulting in a workforce that understands the challenges deaf people face in their day-to-day lives. It is a powerful concept, resulting in positive role models for both staff and clients.

SEA's goal is empowerment. "We ensure our clients are involved in their own care as much as possible," says Thornton. "We help them to access services and encourage independence. Our focus is on building a bridge between the individual and the wider community and health services. We provide awareness to our stakeholders in health services and try to involve our clients in the process as we reshape services to meet their needs. We want to ensure our clients and staff are treated fairly and as individuals. We believe in getting the client involved in their own care to the best of their ability, so people have ownership over their own lives."

www.searecruitment.co.uk

"Illness is neither an indulgence for which people have to pay, nor an offence for which they should be penalised, but a misfortune the cost of which should be shared by the community"

Aneurin Bevan

CHAPTER 11

PHARMACEUTICALS

INNOVATION AND REGULATION

THE MHRA'S NEW CORPORATE PLAN AIMS TO STRIKE A BALANCE BETWEEN ENCOURAGING NEW, EFFECTIVE MEDICAL PRODUCTS AND ENSURING PATIENT SAFETY

As the body responsible for regulating medicines, medical devices and blood components for transfusion in the UK, the Medicines and Healthcare products Regulatory Agency (MHRA) played a critical role in the country's response to Covid-19, and the approval and roll out of vaccines in particular.

"Our world-leading response to the Covid-19 pandemic demonstrated what an agile, flexible regulator can accomplish," says Dr June Raine, MHRA Chief Executive. The pressure to deliver effective medical innovations to patients, while ensuring that the benefits justify any risks, remains, however. "We have set ourselves an ambitious path over the next three years," says Dr Raine, "with clear, measurable aims that will allow us to respond to the evolving challenges that the future holds."

To this end, the MHRA has launched it new Corporate Plan 2023–26, setting out how the agency intends to keep patients safe by enabling access to innovative, safe and effective medical products over the next three years.

The plan addresses MHRA's central priorities up to 2026 so that it can deliver on this core purpose, by employing its breadth of scientific and regulatory expertise, its support for innovation and the risk-proportionate regulation of medical products. Patients remain at the heart of the agency's focus, with plans to further embed patient involvement across the agency's regulatory pathways and to develop efficacy and safety information that better meets the needs of all patients.

The agency also plans to pilot public awareness activities to increase patient understanding of its benefit–risk decisions, as well as public hearings on major safety issues, so that the experiences of patients and stakeholders can be brought into consideration openly and transparently.

The priorities in the corporate plan are fourfold. Firstly, it aims to maintain public trust through transparency and proactive communication. This calls for clear lines of dialogue with patients to ensure awareness of the latest in medical products.

The plan also addresses the need to enable healthcare access to safe and effective medical products. "By working with partners across the UK health ecosystem," the corporate plan states, "we will create faster risk-proportionate and predictable regulatory pathways. These will support innovation and create a compelling reason for companies to introduce new medical products that support health priorities,

BELOW
MHRA Chief Executive Dr June Raine

deliver for diverse patient groups and address health inequalities in the UK."

This leads on to the third priority, to deliver scientific and regulatory excellence through strategic partnerships. This entails fostering greater integration, better communication and more collaboration with partners in the UK, which will enable the agency to respond to national priorities, and working with international regulators to best develop pioneering regulatory practice.

Finally, the MHRA's three-year strategy sets out a roadmap for becoming an agency where people flourish alongside a responsive customer-service culture.

The plan, which was published in July 2023, sets out the key actions the agency will take to deliver on these priorities that will transform medical product regulation in the UK. These range from a revised innovation pathway to reduce the time from discovery or development to deployment, to developing and launching a new knowledge hub that will act as a responsive, customer-focused single point of contact for the agency.

"By working in partnership with other regulators and partners at home and abroad, we will transform our regulatory processes," says Dr Raine, "making the UK an attractive home for the global life-sciences industry and a place where medical innovation can flourish, so all patients can benefit from the very latest in safe and effective medical products."

ABOVE
The MHRA was instrumental in the regulation of Covid-19 vaccines

RARE NECESSITY

AOP HEALTH UK WORKS CLOSELY WITH THE NHS TO DELIVER SPECIALIST DRUGS FOR THE TREATMENT OF PATIENTS WITH RARE DISEASES

A rare or "orphan" disease is defined by the UK government's Rare Diseases Framework as one that affects fewer than one in every 2,000 people. Although individually rare, they are collectively common, with one in 17 people affected at some point in their lifetime. In the UK, that's an estimated 3.5 million people a year. The impact is huge, on the patients, their families and on healthcare providers. Diagnosis can take years due to lack of data and experience of such conditions, and treatment options are limited. Without effective treatments, they carry a high rate of morbidity and mortality.

There are currently over 7,000 rare diseases that are recognised globally. It is a niche area and one in which AOP Health has specialised for more than 25 years. The company was founded as AOP Orphan in Vienna in 1996 by two entrepreneurial specialists with medical and pharmaceutical backgrounds. Today, it is managed by two CEOs, Bernhard Nachbaur and Martin Steinhart, and has a reputation as one of the most important providers of treatments for rare diseases, operating in most major European countries including the UK. "We were founded to treat serious and long-term diseases that until this point had not been given the attention they needed by health systems," says Nachbaur. The portfolio is focused on four key areas: haemato-oncology; cardiology and pulmonology; neurology and metabolic disorders; and critical care.

Although it does not have its own laboratories, the company invests a large proportion of its annual turnover in research and development, utilising a worldwide network of professional service providers for the implementation of its research projects. In addition, it works with other companies via in-licensing or out-licensing agreements to extend the geographic availability of existing products to patients worldwide.

The UK arm of AOP Health was founded in 2012. From his Cambridge base, Michael Kindell, General Manager UK and Ireland, leads a team of nine who deliver AOP Health's life-changing treatments to the UK through the NHS. This involves negotiating with the NHS, NICE (National Institute for Health and Care Excellence) and its Scottish

equivalent SMC (Scottish Medicines Consortium). “Our European partners have a huge interest in what we are doing,” says Kindell, “because the NHS is seen as such a global success.”

Kindell ensures AOP Health UK aligns with the parent company’s values, but adds that there are wide-ranging benefits for AOP Health that come from working with the NHS, which upholds the highest standards in its commitment to universal healthcare provision. “We are operating in one of the most rigorous regulatory systems in the world,” he says. “At AOP Health, we want to position ourselves as the most trusted rare-disease company in the UK, and our people are critical to that journey because they are passionate and have so much experience with these therapies. The NHS is recognised as one of the best medical systems in the world. Everything we do at AOP Health is looked at by our global partners in that context.”

AOP Health’s core characteristics include being highly networked and non-hierarchical, both internally and externally, as working with rare diseases requires close partnerships, transparency and openness to share data and experiences. This is reflected in the organisation’s relationship with the NHS, as well as with healthcare professionals and patients. For example, the support provided by AOP Health amounts to much more than providing rare drugs for patients; owing to its history, it is a valuable source of expertise.

“We are very active in education. We offer training and support to NHS consultants and nursing teams so they can manage these drugs and improve the safety of patients,” says Kindell. “There are quite complex treatments, such as the pumps for the cardiovascular condition PAH [pulmonary arterial hypertension] and a pen device to inject drugs for PV [polycythaemia vera], a type of blood cancer. It is important this is used correctly, so we ensure that each patient has a nurse who is trained in how to introduce the pen to them.”

AOP Health’s educational work may even help patients receive a life-saving diagnosis because one of the main issues with rare diseases is identifying them. “Quite often there are challenges with diagnosis because these conditions are so rare; healthcare professionals might only see them once in their lifetime, even if they are a specialist,” says Steinhart. “As a doctor it’s very hard to diagnose something you have never seen before. Somebody might come to you with a problem with their breathing, and while there are lots of conditions that make you breathless, not many doctors will think it could be CTEPH [chronic thromboembolic pulmonary hypertension].”

“We want to position ourselves as the most trusted rare-disease company in the UK”

As a result, it can take many years to get a diagnosis. Without effective treatments, these diseases can be expensive to manage in terms of healthcare professionals’ time, medicines and hospitalisations.

But it is very much a two-way channel as AOP Health receives valuable feedback and learnings from the NHS. An example of this is a product often used in intensive care. Following reports that in rare instances healthcare professionals made medication errors when administering the drug to patients, AOP Health reformulated its own version of this product to provide a single vial presentation of a standard dosage that is simpler to use.

This two-way partnership approach is also reflected in AOP Health’s relationships with external researchers and leading clinicians, as well as with patients. AOP Health is actively involved with patient associations to help spread awareness

“Patient organisations for rare diseases are very important for patients to share their common goals, fears, treatments and knowledge with each other,” says Kindell. “Our aim is to understand the patients’ perspective and put them at the heart of what we do, so we can deliver medicines which can provide optimal treatment and, ultimately, improve their quality of life.”

www.aop-health.com

TUNING IN TO PATIENTS

WORKING IN HARMONY WITH THE NHS, JAZZ PHARMACEUTICALS DEVELOPS MEDICINES FOR PEOPLE WITH UNMET HEALTHCARE NEEDS

Jazz music encourages individual creativity within the collaborative framework of a team, enabling each musician to explore their true self while driving towards a common goal. For musician and music lover Bruce Cozadd, Chairman and CEO of Jazz Pharmaceuticals, this reflected the qualities he wanted to see in the company he co-founded in the US in 2003.

Innovative and people-centric for employees, healthcare professionals and patients, Jazz Pharmaceuticals was created to identify and develop unique therapies, targeting unmet needs in neuroscience, and later in oncology. The team's work includes partnering with the NHS to develop these pioneering medicines.

"We are very purpose-driven with a focus on patients that informs every decision we take," says Samantha Pearce, Senior Vice-President of Europe and International. "There are many examples where we focus on developing a drug purely because we know it is a highly underserved area with very significant unmet needs for patients whose condition has a debilitating effect on their lives.

One of Jazz Pharmaceuticals' first affiliates outside the US was founded in 2012 in the UK, where it works very closely with the NHS. Much as NHS staff are driven by pride in the organisation for which they work, Jazz Pharmaceuticals employees feel valued and respected thanks to a culture that reflects three goals: serve people and their families; be a great place to work; and live its core values. This culture helps inspire the company as it continues to expand its scientific understanding, helping more patients and caregivers.

While oncology and neuroscience are not related fields, Jazz Pharmaceuticals applies the same perspective to both, identifying rare conditions and engaging with scientists, physicians and patients to understand what is needed. The company's Chief Medical Officer, Dr Kelvin Tan, trained in the NHS and still works alongside NHS physicians as well as patient advocacy groups to develop effective treatments for the patients Jazz serves.

"We hold the NHS very dear to our hearts," says Tan. "Many of us worked in the NHS before coming to Jazz

Pharmaceuticals. We understand how it works and we understand the challenges it faces. We work collaboratively with the NHS towards the same goals." Tan is responsible for guiding the development of new medicines and ensuring healthcare professionals can make informed choices through leading scientific exchange and engagement with the prescribing community. "We ensure physicians have choice and patients have access to the medicines we develop. We are a purpose-driven, patient-centric organisation and that is what differentiates us. It is why people want to work here – we can offer a great career while helping patients."

Some of the team's most radical work has been around the medical development of cannabinoids. Innovative research and careful testing over two decades have resulted in regulatory approval in the UK and across Europe of cannabis-based medicines – first administered at Great Ormond Street Hospital, and now routinely across the NHS. Andrea Leonard, Executive Director of Growing Operations, oversees the growing of cannabis plants in Jazz's UK facilities. "There's a real connection with something that is living," says Leonard, "and the knowledge that we are caring for plants that will be used to create a medicine to help change patients' and caregivers' lives."

This connection to nature also emphasises the need for environmental responsibility – as is demonstrated by the use of natural light and wind turbines in the company's largest sites. Environmental, Social and Governance (ESG) is fundamental to the company purpose, strategy and culture. Pesticides are banned, peat is being phased out, and rainwater is harvested in lagoons and used to water the plants as well as creating wildlife corridors, improving biodiversity. Staff members' passion for sustainability is nurtured by staff associations, where new ideas are developed. "This employee engagement helps make a difference to our footprint and generates new ideas," says Leonard. "It's so exciting to see where these conversations lead."

The way cannabis-derived medicines have been developed demonstrates Jazz Pharmaceuticals' appreciation of patient needs. "When we are thinking about tackling an unmet need with our medicines, we engage with patient groups to ask what is important to them," says Tan. "We talk to them, listen and try to incorporate their feedback whenever possible."

"We engage with patient groups to ask what is important to them"

Tan uses his NHS experience to find effective ways to support and educate healthcare professionals, many of whom will never have encountered these rare conditions before. "Part of our role is supporting the doctor to recognise rare conditions and diagnose the patient," says Tan. "We work with the NHS so that healthcare professionals are aware of treatments so that appropriate patients may have access to them. Developing treatments for rare or serious diseases provides an opportunity to get much closer to patients and caregivers to truly understand their needs. Within R&D, we bring that patient voice into innovation as we explore how to improve on the current standard of care. These are things we can only learn from the NHS and the patient community."

Since its founding 20 years ago, Jazz Pharmaceuticals has stayed true to its original principles and built on the strengths of its staff. Its commitment to the employee experience, including a flexible hybrid working model, acknowledges that employees share the longstanding commitment to people that sits at the heart of the company's work.

"We are now a global biopharmaceutical company with a footprint in North America, Europe and Asia, and we will continue that evolution, getting our medicines to more patients across the world," says Pearce. "Our work culture continues to be important, and we don't want that to get diluted or lose sight of things that really matter. Innovation is important for us, just as it is with the NHS, which will need to innovate as it continues to deliver for the UK over the next 75 years."

DARING TO BE DIFFERENT

BIG ON IDEAS AND PARTNERSHIPS, ASPIRE PHARMA IS CHALLENGING THE PHARMACEUTICAL INDUSTRY TO BE A FORCE FOR GOOD

Richard Condon, the CEO of Aspire Pharma Ltd, describes his company's proposition for the NHS, patients and the environment as a benefit to all. Aspire's employee skillset allows the company to identify drugs or medical devices that can be improved or refined – either in terms of cost, chemistry, delivery or packaging. It then provides them to the NHS as a guaranteed supply at a lower cost than its competitors. It is a promise that has saved the NHS almost £200 million over the past decade.

"We are highly entrepreneurial and highly innovative," says Condon, who in 2022 took over as CEO from Aspire's founder, Graham Fraser-Pye, who is now Chairman. "We have a strong track record of ideation, and ultimately we make these ideas happen. Our vision is simple – we help, we care – and we can unite people behind that vision."

Fraser-Pye came from a pharmaceutical background and saw an opportunity to create an agile, entrepreneurial company that was not already represented in the UK, says Condon. "He started with a single drug licence in 2009. We now have more than 400 products in 16 therapeutic fields, with more than 200 employees. We have always had a view of providing very high levels of customer service and a commitment of reliable supply and pricing to the NHS. Our mission is to make a difference to the lives of patients through the supply of innovative products and medicines throughout the world."

Condon identifies some of the products that exemplify Aspire's philosophy to be better for the patient and for the planet, allowing the NHS to meet environmental targets while reducing costs and improving patient outcomes. In the world of ophthalmology, the company has developed a line of preservative-free eye drops for the ocular surface that can be packaged in multi-dose bottles to cut back on single-use plastic. Similarly, Aspire has innovated in the field of dermatology, acquiring a company that produces emollients for eczema, bringing the supply chain to the UK and improving the chemistry and packaging. The packaging is now widely recyclable, the majority of emollients are vegan, and supply and cost to the NHS are guaranteed. "It's a case of win-win-win: sustainable, high quality and a better price," says Condon.

As Aspire grows, it has built partnerships to spot opportunities where the company can bring better value to patients and the NHS, with which it has a strong relationship on both a regional and national level. The company does not have manufacturing plants or labs, preferring to invest in people – the entrepreneurs and scientists who have the ideas that can improve or refine existing products. While broadening its scope, Aspire is again identifying areas that competitors may fear to explore, which is why it is currently developing drugs to treat rare conditions.

Aspire plans to increase business outside the UK, but the team will always adhere to its principles. These underpin the innovative, imaginative and agile approach to pharmaceutical products, something exemplified by a project that Condon says is close to his heart. "We partner with aid agencies such as MSF (Médecins Sans Frontières), UNICEF and the World Health Organization, sourcing and providing medical aid packages," he says. "We are one of the largest suppliers of these services and have dedicated individuals who will source products and clear the paperwork to import them to challenging areas like Ukraine, working alongside aid agencies. We are proud to have exported to more than 120 countries globally since inception."

www.aspirepharma.com

HEALTH EFFICIENCY

BHR PHARMACEUTICALS IS A LEADING PROVIDER OF POINT OF CARE DIAGNOSTICS TO THE HEALTH SECTORS, HELPING PEOPLE TO IMPROVE THEIR OWN HEALTH WITH REMOTE MONITORING OPTIONS

As the NHS moves towards a process of prevention and early identification of disease, simple-to-use diagnostic tests are becoming increasingly important for the management of people's health. BHR, part of Biosynex SA, has been supporting such devices in the UK for over three decades. Having initially offered pregnancy and urine test systems, BHR brought the CardioChek lipid testing system to the NHS, and it is now the number one product to deliver the NHS Health Checks programme. BHR's latest introduction to the UK market is the convenient and effective ProciseDx system, which assists with the screening and treatment of Inflammatory Bowel Syndrome (IBS).

"Our cholesterol test can provide a result for a full cholesterol profile in under two minutes with very good accuracy," explains BHR Managing Director Ramesh Patel, who founded the company in 1990. "We established the use of an external quality assurance programme, so users know the results are within established norms of accuracy. We estimate that by using the CardioChek system, the NHS has saved more than £25 million in cholesterol testing when compared with competitors. This testing programme has resulted in a significant reduction of serious cardiac conditions within the UK. That's the entire aim of the programme: the prevention and early identification of disease through simple and effective testing."

BHR has also partnered with Heart UK, the UK's leading cholesterol charity, along with major pharmaceutical companies, to lobby for the testing of relatives of those with familial hypercholesterolaemia, a genetic condition causing extremely high cholesterol levels, with children as young as 12 being affected. As a result of the partnership, GPs are now routinely testing relatives.

Following this success, BHR is rolling out a pilot scheme that allows pharmacists to enrol type 2 diabetics into the Motivate Remission (MoREM) programme to help or prevent type 2 diabetes. The A1cNow Self Check test determines levels of the gold-standard marker of diabetes control – HbA1c (glycated haemoglobin) – and is the only HbA1c test certified to accurately monitor diabetes control at home. "You can buy a pack of four A1cNow Self Check tests, which lasts a year as you need to test every three

months to catch changes in HbA1c levels," says Patel. "Pharmacists can either do the test for the customer, or people can test at home. We will provide an app to motivate with exercise, as well as provide help with better management of diet, allowing customers to take control and see the impact of lifestyle changes."

IBS is another area in which simple diagnostic tests can make a huge difference. Currently it can take three to four weeks to get accurate results, so patients are often receiving higher doses of IBS medication than necessary. BHR's IBD test platform transforms those needs and has already been adopted by several IBD centres of excellence, with many more validating the system prior to adoption. "Once again, the cost to the NHS is reduced and the patient doesn't need to keep going back and forth to hospital," says Patel.

"Patients are becoming more comfortable with testing in primary care or at home, and with bodies like the British In Vitro Diagnostics Association (BIVDA) setting standards for companies producing these point of care tests, the tests will keep improving, allowing more patients to look after their own health in a timely manner."

www.bhr.co.uk


bio cryst

A PRODUCTIVE PARTNERSHIP

BIOCRYST PHARMACEUTICALS DEVELOPS NOVEL ORAL MEDICINES FOR RARE DISEASE, COLLABORATING WITH THE NHS TO ENABLE THEM TO JOINTLY MANAGE CONDITIONS

Most public health systems cannot work alone; the NHS is no exception. Wide-ranging, strong partnerships are essential, particularly in developing treatments for rare conditions, such as hereditary angioedema (HAE). HAE affects around one in 50,000 people, according to the British Society for Immunology (BSI). It causes severe swellings in the body – known as "attacks" – including, on rare occasions, the throat. Attacks can occur spontaneously, limiting a patient's ability to work or socialise. BioCryst has worked collaboratively with the NHS to increase options for patients in the management of HAE. These options have given patients hope that they can improve control of their condition.

BioCryst takes pride in building enduring relationships with regulators, policy-makers, healthcare professionals and HAE patient champions among others. "We aim to listen to and understand the needs of patients, their caregivers and their communities, incorporating their perspectives into our drug development process, with the ultimate aim of improving the standard of care for more patients," says Luke Robinson, General Manager of BioCryst UK, Ireland and Nordics. "Access to more treatments gives people with rare diseases choice and enables them to live more normal lives."

BioCryst is in a continuous cycle of learning, partnering and delivering for NHS patients. Collaboration is essential to broaden treatment access for patients, and BioCryst develops meaningful, mutually beneficial partnerships. A successful submission for the Early Access to Medicines Scheme, run by the Medicines and Healthcare products Regulatory Agency (MHRA), enabled patients to benefit from treatment that served an unmet medical need before it received formal regulatory approval. This patient-first approach also gave BioCryst real-world data on patient outcomes.

"The earlier that NHS consultants receive access to new options, the better the potential outcome for patients," says Robinson. "The availability of treatment choice also empowers patients and can reduce the psychological burden of the condition. Anxiety can be a big problem with HAE, as no one can predict when the next attack will happen. More treatment options should allow patients greater control of their day-to-day schedule."

BioCryst has repeatedly demonstrated its dedication to working with the NHS and other stakeholders to elevate shared decision-making, working with nurses and consultants in specialist centres across the country and alongside patient advocacy groups including HAE UK and Genetic Alliance UK. By supporting stakeholders such as healthcare professionals and patient organisations, BioCryst ensures patients and their families are kept up to date with new treatment options. All this benefits the long-term sustainability of the NHS. "We need to have treatments for rare diseases, but there is seldom a cure," says Robinson. "This is where the pharmaceutical industry is so important, as we have the experience in developing new treatments and bringing them to market. We are a commercial organisation, but we operate in a mutually beneficial way to help the healthcare community in areas where there are unmet needs and limited treatment options. We are committed to working with the NHS and the rare disease community.

"We are here to stay, and that means building a sustainable company and ensuring the innovation we bring to the NHS is also sustainable – an important consideration as we chart our course to work alongside the NHS into the next century."

www.biocryst.com

TRADING IN MEDICINES

THROUGH ITS HIGHLY SPECIALISED BUSINESS MODEL, CST PHARMA PROCURES ESSENTIAL MEDICINES FOR THE NHS AT A SUBSTANTIALLY REDUCED COST

Medicines are expensive, particularly in the UK where many branded pharmaceuticals and medical devices often cost more than elsewhere in Europe. One company that allows the NHS and community pharmacies to find much-needed efficiencies in this market is CST Pharma Group Holdings, a business that specialises in the art of parallel imports – that is, importing pharmaceuticals and medical devices from overseas at a cheaper price than that set in the UK.

"Essentially we identify products that are the same as the UK product but with lower prices, that we can acquire from other countries and import to the UK," explains Jason Yates, CST Pharma Group Holdings' Managing Director. "We then repackage them under MHRA licences, according to GMP (good manufacturing practice), and distribute to UK pharmacies, wholesalers and hospitals. We can pass on the significant savings to the NHS."

CST Pharma entered this market 20 years ago almost by accident. It initially supplied a pharmaceutical used in cancer treatment to dispensing doctors, but then found it could make significant savings through the parallel import system. From that, a new business model was devised, supplying large wholesalers that service pharmacies. Now, CST Pharma has developed significant business with the NHS through the Commercial Medicines Unit, which is responsible for supplying medicines used in UK hospitals. This is something that has been accelerated since the pandemic.

"We had four products and two of them were instrumental for the NHS during Covid," says Yates. "One was dexamethasone, which was listed at around £9, but we could supply it for something like £2; and we also had morphine for people in critical care. There was a shortage due to the huge demand, and we were able to replenish that stockpile and cover the shortage, while still delivering a 40 per cent saving, and bring in more supplies. Since then, we have gone from four products to more than 100, and our strategy now is focused towards supporting the NHS."

This is a complex business that requires CST Pharma to identify recently tendered drug supply contracts where potential savings could have been made through parallel import. The company then has to obtain a licence, develop a relationship with

the suppliers and build a stockpile in anticipation of the next round of tendering. A significant advantage has been derived from the establishment of a presence in Spain, which allows CST Pharma to circumvent some of the complications arising post-Brexit. It has been such a success that there are plans to open a site in Italy and then maybe the Netherlands. "We are looking at expansion in Europe to supply the UK," explains Yates.

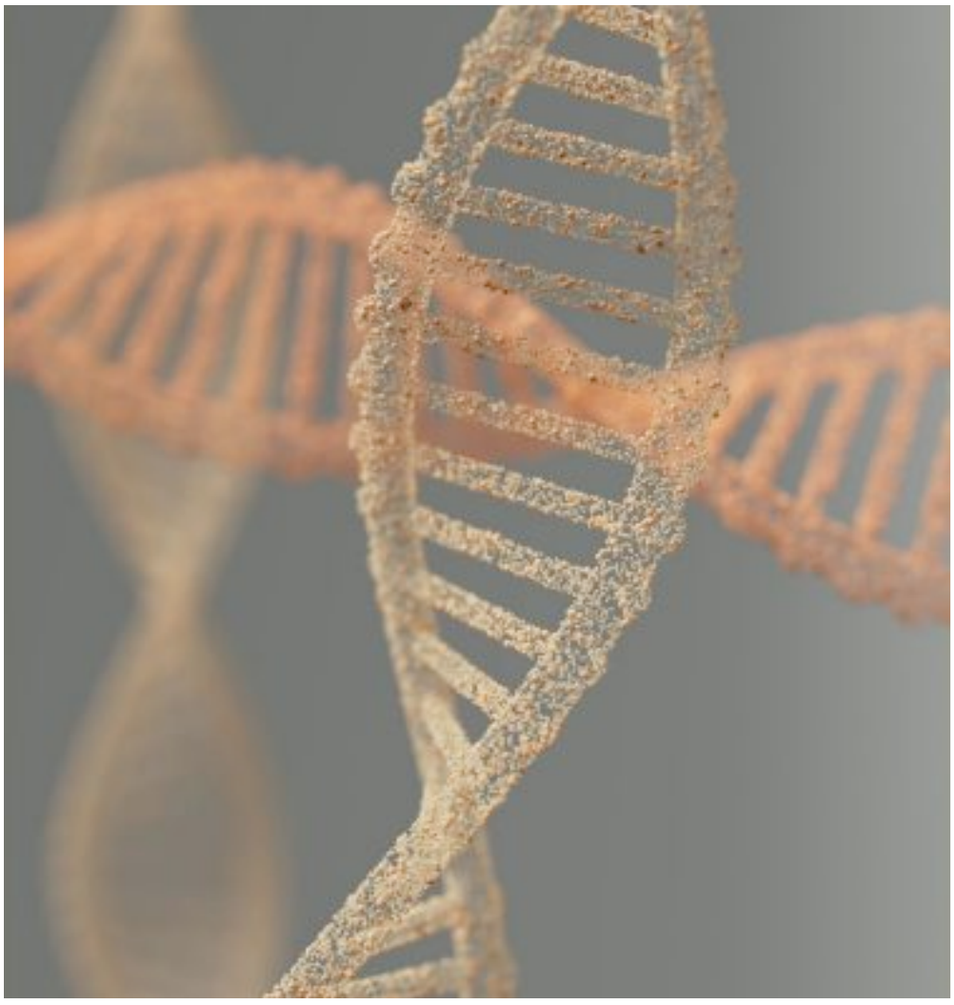
The parent company CST Group Holdings has developed other strands of investment, including the manufacture of medical devices for sale in the US, and has a presence in the aesthetics market. Meanwhile Yates is now seeking to establish stronger direct contacts with the NHS, to allow the healthcare system access to a wider range of medication at a cheaper price.

"The type of products we do, specialised ones such as morphine where there are more controls in place, and then the fact we tender for the NHS, which others might be afraid to do as they can't get the consistent supply, means few others can offer the same savings," he says. "Looking ahead, we could do a lot more working directly with the NHS."

www.cstpharmagroupholdings.co.uk

RESOLVING CANCER'S COMPLEXITY

MOSAIC THERAPEUTICS IS LEVERAGING THE WORLD'S BEST RESEARCH TO BREAK NEW GROUND IN ONCOLOGY MEDICINES



Spun out of leading research at the Wellcome Sanger Institute, in collaboration with the Netherlands Cancer Institute, is Mosaic Therapeutics, an oncology therapeutics company set up in 2020 that aspires to tackle one of the world's most challenging diseases. "As we celebrate 75 years of the NHS, it's important to recognise the world-renowned beacon of UK research and innovation that the Sanger Institute represents," says Mosaic CEO Brian Gladsden. "The Sanger was established with the purpose of mapping the human genome for societal benefit and is still a world leader. Our bespoke relationship with the institute gives us access to cutting-edge technologies, biological matter and groundbreaking expertise that no other company has." Gladsden also acknowledges the fertile environment of Mosaic's base in Cambridge. "It's exciting to tap into the wonderful talent in its burgeoning biotech sector. We're a global company proudly born of UK roots."

Mosaic's founders are all leading industry pioneers. Mathew Garnett, a Senior Group Leader at the Sanger Institute, is globally recognised as a co-discoverer of the BRAF gene mutation, a key genetic driver of cancer. Emile Voest is a word-renowned Clinical Oncologist and former leader at the Netherlands Cancer and Oncode Institutes, having established multiple personalised medicine consortia. Adrian Ibrahim has more than 20 years' experience in technology development and commercialisation in cancer and genomics from the Sanger Institute, with a track record of establishing numerous international genomics ventures.

This exceptional team has come together to hunt for more effective cancer treatments and face head-on some of cancer drug development's most daunting challenges. Notably, cancer is not a homogenous disease. Scientists are tasked with discovering treatments for hundreds of cancers, developing medicines targeting specific types and for individual patients. "This work involves searching a vast space, as we look for the right drivers of cancer to target with the right medicines. Conventional explorative approaches are often unproductive and consume too much energy, capital and time."

In addition, with a 93 per cent clinical failure rate and a five-year mean survival rate across all cancer types of only 51 per cent, there is tremendous room for improvement. Despite

significant advances in medicine, it is still very difficult to develop new cancer treatments, leaving many patients without options. “These significant challenges demonstrate that we have to take a more systematic, data-driven approach to identify new therapeutic strategies, moving beyond current histology- and hypotheses-based approaches.”

Drawing on its relationship with the Sanger Institute, Mosaic is well positioned to respond to these challenges. The company has forged a unique discovery platform that combines experimental biology with computational methodologies. “Many companies offer platforms based on either biology or machine learning, but Mosaic has integrated both these capabilities into a world-leading therapeutic platform that redefines the interface of experimental and computational biology.” This powerful engine enables a prospective and purely data-driven approach, with results that are not biased solely on hypotheses or retrospective data.

For Gladsden, “The hope of a better future for people with cancer is incredibly inspirational. The urgent need to develop more effective medicines motivates us every day at Mosaic, and I’m proud to be part of it.”

www.mosaic-tx.com

HELPING HEALTH SYSTEMS EVOLVE

GLOBAL HEALTH COMPANY VIATRIS WORKS TOWARDS THE EVOLUTION OF HEALTHCARE, PROMOTING AN ECOSYSTEM TO SUSTAIN ACCESS TO MEDICINES

When the Right Hon Patricia Hewitt, a former Secretary of State for Health, concluded her review into the NHS in 2023, one of her observations was that improved health outcomes should be a national mission rather than a burden shouldered solely by the NHS. This kind of thinking is also at the core of Viatris, a global healthcare company.

Viatris believes that patients' access to medicines – resulting in better health outcomes – will be secured not just by new and better use of medicines, but through collaborations, partnerships, the use of data, systemic innovation and supporting patients locally via community hubs and pharmacies. In 2022, the company supplied medicines to approximately one billion patients globally. That same year, they supplied more than five million UK patients through the NHS.

"We need to break down traditional silos to provide sustainable access to medicines," says Matthew Salzmann, Country Manager for the UK. "Covid has shown that when industry, government, the NHS and community pharmacies work together for a common solution, it's incredible what can be achieved." The company is uniquely positioned to help lead this evolution. "We represent all sides of the industry, in all parts of the world, in all of life's moments, from birth to end of life; acute conditions to chronic diseases. Access is not an initiative, it is our business model," he adds.

In the UK, the company is especially an advocate for the role of community pharmacies. It currently supplies drugs for most therapy areas, including non-communicable and infectious diseases, such as HIV, tuberculosis and a vaccine against flu, and understands that pharmacies are often where customers first encounter the health system. The fact that pharmacies are now being handed more responsibility, including prescribing some medicines, is a move Salzmann welcomes. "They are the front door to the NHS. We recognise this and are working with pharmacies to help make that change," he says.

Viatris partners with the NHS to try to better understand the needs and demands of the health system, and this includes driving work on health inequalities in the UK. Sustainability targets have been adopted, too, to ensure the company can support the NHS in its commitment to net zero and helping the service in areas where budgets are often restricted, such as professional development. Viatris regularly organises, funds and delivers education and training to healthcare professionals, taking it to the regions where it is most needed. Additionally, the company upholds the use of data to anticipate health problems, with an emphasis on a preventive approach to healthcare.

With more than 500 employees in the UK and a recent Top Employer accreditation, Salzmann is proud of a team that is dedicated to being a true partner to the NHS. "We have been fully supportive and an active part of the NHS for over 60 years. We want to see the NHS thrive for the next 75 years and beyond, but we are concerned with recent market developments, not fully reflecting the value that off-patent medicines continue to bring to patients and the NHS. We're again using our collaborative approach to propose reforms to the system so that patients get access to their medicines", says Salzmann.

"The future is working in partnership towards a sustainable healthcare system," he adds. "If it's done properly, there will be productivity gains because anything that is good for health is good for the economy. We want people to see health as a worthwhile investment, not as a cost."

www.viatris.co.uk


Stronger
Together

CHAPTER 12

DIGITAL AND DATA TECHNOLOGY

REMOTE POSSIBILITIES

SPURRED BY DIGITAL INNOVATION AND PANDEMIC PRESSURES, VIRTUAL WARDS HAVE GONE FROM PIONEERING PROJECTS TO A WIDESPREAD REALITY IN RECENT YEARS

"The advantages of virtual wards for both staff and patients have been a real game-changer for the way hospital care is delivered," says Professor Sir Stephen Powis, National Medical Director of NHS England. Enabling patients to get hospital-level care at home safely and in familiar surroundings, virtual wards help speed up their recovery while freeing up hospital beds for patients that need them most.

Just as in hospital, people on a virtual ward are cared for by a multidisciplinary team who can provide a range of tests and treatments. This could include blood tests, prescribing medication or administering fluids through an intravenous drip.

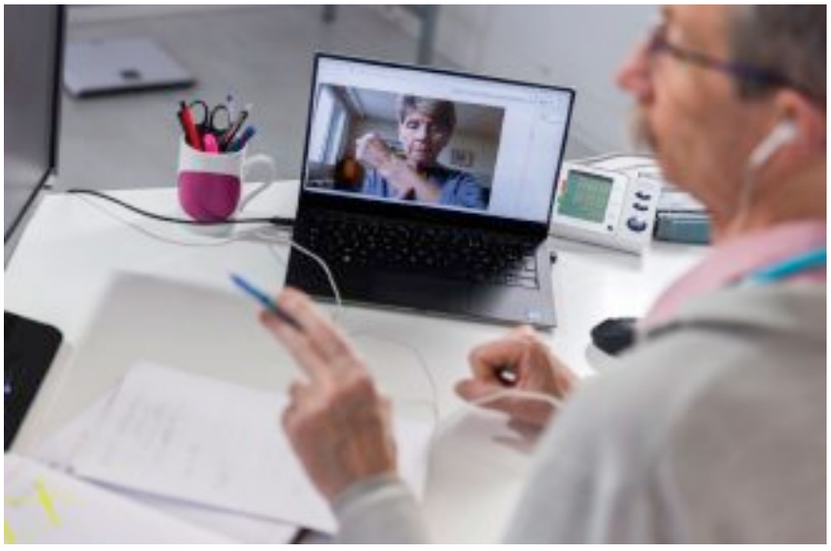
Patients are reviewed daily by the clinical team and the "ward round" may involve a home visit or take place through video technology. Many virtual wards use technology such as apps, wearables and other medical devices, enabling clinical staff to easily check in and monitor the person's recovery.

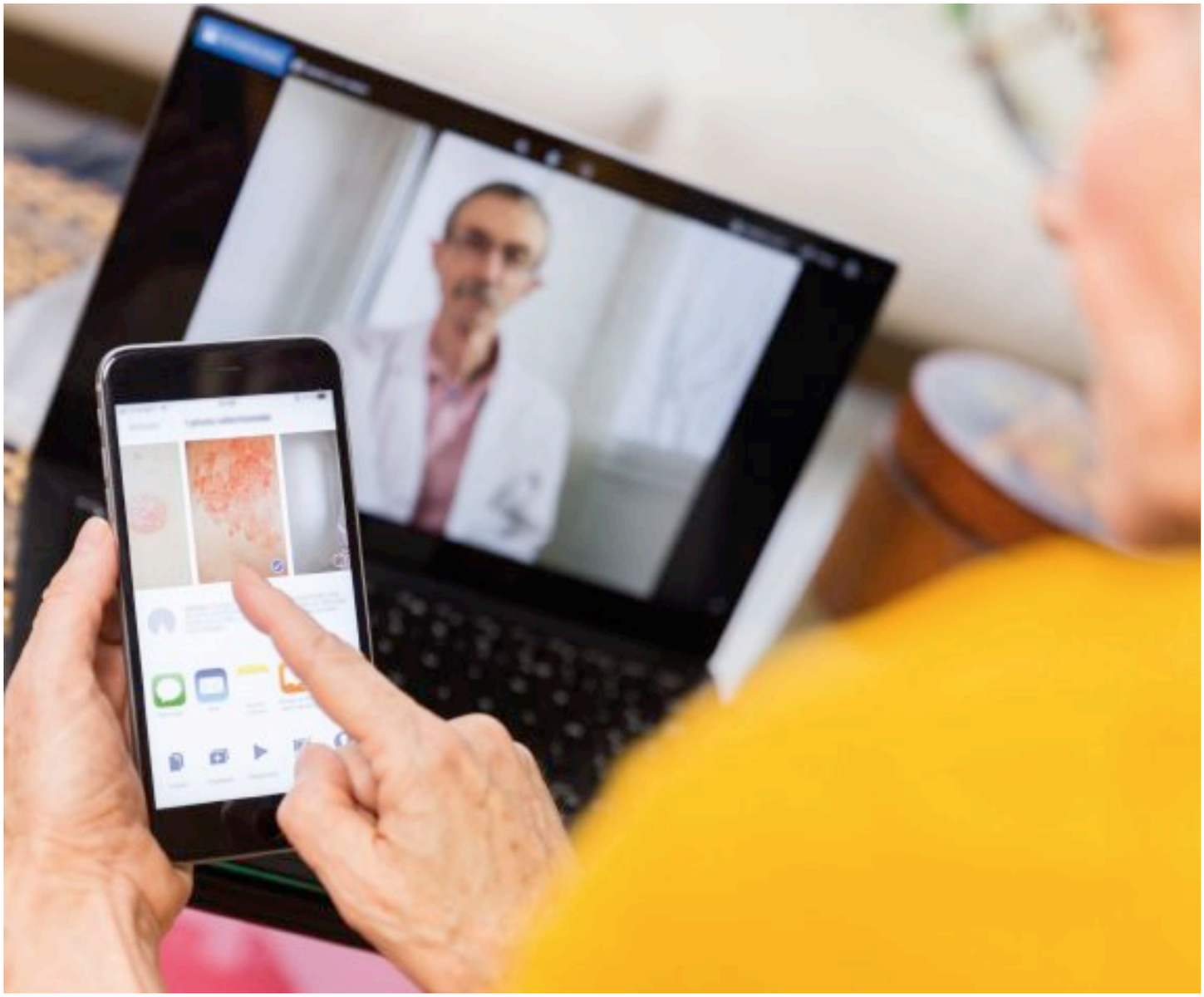
The innovative concept has existed for a number of years, but Covid-19 led to a rapid rise in research and schemes – a rise so swift that in March 2023, NHS England announced that virtual wards had treated more than 100,000 patients over the course of the previous 12 months, with 16,000 patients having been treated in January alone.

"It is a huge achievement that more than 100,000 patients have been able to benefit in the last year alone, with the number of beds up by nearly two-thirds in less than a year," says Sir Stephen. "With up to a fifth of emergency hospital admissions estimated to be avoided through better supporting vulnerable patients at home and in the community, these world-leading programmes are making a real difference not just to the people they directly benefit, but also in reducing pressure on wider services."

There are now more than 340 virtual ward programmes across England and that figure is set to climb, with a target of over 10,000 virtual ward beds to be available by the end of 2023. NHS teams have worked hard to increase numbers since May 2022, when just under 4,500 such beds were available for patients.

BELOW AND OPPOSITE
The increase in virtual wards has enabled the NHS to provide patients with remote and home care, freeing up beds in hospitals around the country





While some patients may have more difficulty using remote home monitoring services than others, virtual wards can provide benefits for those who would rather be treated from home, as nurse Nisha Jose, Clinical Team Leader at Mersey Care's Clinical Telehealth Hub, explains. "People yearn for normality and the comfort of home, yet when they get home, they may become worried," she says. "With our virtual ward programme, we can do everything that would happen on a hospital ward. We take observations every six hours to identify any issues and we can even carry out ECGs at the patient's home.
It has truly transformed the way we deliver care."

The level of service provided can also be tailored to a patient's needs. "As a GP, I work collaboratively with the Hospital at Home team to support patients who are at risk of being admitted to hospital and need step-up care," says Sayanthan Ganesaratnam, a GP in Merton, London. "This is beneficial to patients as, rather than going into hospital for potentially lengthy stays, they can stay at home, receive excellent care and be monitored closely in familiar surroundings. And should a patient start to feel unwell, there are systems in place to quickly alert a clinician, reducing the possibility of an emergency readmission."

The NHS's Urgent and Emergency Care (UEC) Recovery Plan – launched at the end of January 2023 – set a goal of treating up to 50,000 patients a month in virtual wards by the end of 2023/24. It looks like the service is well on its way to delivering on those figures.

A PICTURE OF HEALTH

DIGITAL HEALTHCARE SYSTEM CHECKUP HEALTH SUPPORTS PEOPLE FROM ETHNIC MINORITIES, HELPING TO PREVENT DISEASE AND SHARING IMPORTANT INFORMATION WITH THE NHS

Health inequality, as highlighted during the pandemic, is a complex issue that requires targeted solutions, one of which is offered by CheckUp Health. As a health tech provider, it develops NHS-approved digital health services aimed at supporting the NHS to ensure ethnic minorities have access to suitable help and advice. This includes providing patients with the flexibility to access appointments at their convenience in their preferred language; leveraging AI-driven triage systems to predict no-shows and optimise resource allocation; and offering remote monitoring and efficient management of long-term conditions.

"We understand the space we need to occupy to support the NHS and help it solve problems," says CEO and founder Fungai Ndemera. "This is about helping to reduce the inequalities in health outcomes while saving money by taking a digital approach."

CheckUp Health is used within the NHS by GP practices for primary and secondary healthcare support. "If you haven't lived outside the UK," says Ndemera, "you might not fully appreciate the NHS. It is a great institution and the second you leave the UK, you really appreciate what it does. But that also allows you to identify areas of improvement. One thing we want to do is ensure the NHS does not inadvertently exacerbate some of the problems that people experience."

Ndemera's journey to CheckUp Health is a fascinating one. Like many who have worked for and with the NHS, she was born outside the UK, in Zimbabwe, where she trained as a nurse. She continued to work as a nurse after moving to the UK in 2000, before founding a company that recruited doctors and nurses from around the world to staff the NHS. The company was a success, but when the 2008 recession impacted NHS spending, Ndemera had to start again. After studying the NHS's long-term plans, she realised that any business seeking to support the NHS would need to occupy a digital space. Through her background in recruitment, she was also aware of the problems the NHS would soon face to find sufficient qualified staff. A solution for both problems was a location-independent digital heath service that allowed people to receive medical support anywhere in the world.

A further factor was personal experience. "My father and my father-in-law both passed

away within a week of each other in 2004 from undiagnosed diabetes," says Ndemera. "They were both non-hypertensive patients. This issue left something in my heart. I began to contemplate how I might be the change that was needed. I began to think that having a successful business wasn't enough. Life is not just about running a good business and making money. I knew I could do more, but I didn't know what."

With this nagging feeling at the back of her mind, Ndemera was ready to launch CheckUp Health as a digital health service in 2020, having perfected the model for the UK market. However, the advent of Covid caused a last-minute rethink. "Innovate UK was looking for companies that could find solutions to Covid-related problems," she explains. "The one thing that was closest to my heart was the issue of health inequalities related to demographics, particularly hypertension. Quite early on during the pandemic, we were learning that the racially diverse population had a much higher mortality rate than their white counterparts. We told Innovate UK we would look at ways we could reduce the complications for Black and Asian people by helping them monitor blood pressure and blood sugar levels at home, so they did not need to access health services. We ran this project at the start of 2021 and had fantastic outcomes, with very positive feedback that allowed us to further improve and update our software."

CheckUp Health now offers two products. One is software that gives the NHS a culturally competent platform to help capture the data needed to diagnose and monitor comorbidities, specifically diabetes and blood pressure; this will improve health outcomes and increase digital uptake from ethnic minorities. The other is the availability of clinicians for remote health monitoring who can support GPs when they are under pressure or struggling to reach certain demographics. "With any problems that the NHS has with the racially diverse relating to the digital world, we can be their partner," says Ndemera.

Ndemera sees CheckUp Health as a "bridge" between ethnic minorities and the NHS and believes it can improve communication around health issues for ethnic minorities, while navigating language barriers and cultural differences.

"This is about helping to reduce the inequalities in health outcomes while taking a digital approach"

Given how much the NHS has relied since its formation on employees from Commonwealth countries, it is imperative to Ndemera that these people are now fully served by the nation's health service.

Another issue that she wishes to address is one of the causes of health inequality in the UK – a lack of trust. The company runs a health centre in Zimbabwe, where Ndemera spends some of her time; this creates a synergy between Britain and Africa that will help increase trust among ethnic minorities in the UK. "Our African story will be a key part of our strategy," says Ndemera. While continuing to build growth in Africa, CheckUp Health is looking to move into European markets that have the same needs and challenges as the UK.

Alongside its work with the NHS, CheckUp Health offers corporate subscriptions, called Workplace Wellbeing. It is all part of the company's drive to empower patients to monitor their health using a secure app, available on iOS and Android devices, and with web options. Patients can also share their status and next health steps with family members via a secure messaging option. Ultimately, it all reduces the need to see a doctor in person.

As for the company's NHS roadmap, it is to be the organisation's trusted partner in bringing ethnic minorities into the digital space, and the trusted partner for ethnic minorities in sharing their health details. "If the NHS is going to mitigate health inequalities and ensure these are not exacerbated by digital technology," says Ndemera, "it will need to engage with organisations like ours. We understand these communities and shape solutions that are going to be acceptable to ethnic minorities."

www.checkuphealth.co.uk

DRIVEN BY DATA

LIFEBIT'S FEDERATED ANALYSIS PLATFORM IS BREAKING DOWN BARRIERS, MAKING CLINICAL AND GENOMIC DATA SECURELY ACCESSIBLE AND USABLE, TO CURE DISEASE AND SAVE LIVES

Linked clinical and genomic data is one of the most precious resources in healthcare. It can unlock an unprecedented understanding of disease, leading to pioneering new drugs and treatments. However, because the data is so sensitive and personal, it is heavily protected. The World Economic Forum estimates around 97 per cent of hospital data is unused. This is due to challenges with its size and complexity, and regulations around privacy and security. It makes it difficult for scientists to access information that can be used to change lives – and this is where Lifebit comes in.

The London-based biotech has developed a platform that can analyse population-scale clinical and genomic data, making it findable and usable without the data leaving the security of the institution that collected it. "Linked clinical and genomic data has vast potential to show whether somebody is more likely to contract a disease or react to a drug in a certain way," says Thorben Seeger, Lifebit's Chief Business Development Officer. "Every piece of information can provide a more accurate and earlier diagnosis to prescribe the correct treatment for patients. It really does saves lives."

Lifebit was founded by two leading scientists and innovators in the field of bioinformatics and biomedicine, Dr Maria Chatzou Dunford and Dr Pablo Prieto Barja, who first met at the Centre for Genomic Regulation in Barcelona. Their mission was to remove the barriers surrounding the use of data so that more of it can be used to save lives. The application of genomic data in medicine has vast potential: studies in the UK have shown that five times more patients with a rare disease receive an accurate diagnosis, and drugs based on genomic evidence are two and a half times more likely to receive regulatory approval. The quantity of that data can make a huge difference, too; one genetic association study shows that research insights can grow as much as 100 times when data is increased just tenfold. Lifebit's aim is to democratise access to this data without compromising security.

Dr Chatzou Dunford and Dr Prieto Barja chose the UK as the location for their company because it is at the forefront of the genomic revolution, thanks in part to organisations such as Genomics England. Founded by the Department of Health and Social Care in 2013, Genomics England partners with the NHS to gather clinical and genomic data from patients. Building on the foundations laid by the groundbreaking 100,000 Genomes Project, it analyses whole genome sequences for the NHS Genomic Medicine Service, delivering the most advanced genomic healthcare today. Genomics England maximises the patient and participant benefit by using the same trusted and proven infrastructure, expertise and consent and governance framework to support the development of genomic medicine. Together with the NHS, industry and academia, it is advancing and delivering genomic medicine for all.

In 2020, Lifebit launched its next-generation federated research platform, or Trusted Research Environment (TRE). The platform has a unique, patented federated architecture that allows researchers to bring analytics and computing tools to the data, rather than moving data into a centralised location. In doing so it allows the data custodians, such as Genomics England, to stay in control at all times, but also to connect with other cohorts from around the world. "We bring computation and analysis to the data in situ," says Seeger, "which means that


Unifying Fragmented Data
Worldwide through Federation
Trusted by Gov
Medicine Proje

the data custodian (the organisation that collects the data) retains it in their own secure environment. It achieves both security and usability."

As an example of real-world application, at the start of the pandemic, Genomics England sequenced 35,000 whole genomes from Covid patients using clinical information from hospitals around the UK. Lifebit set up a TRE for Genomics England, and this secure computing environment allowed researchers to gain secure access to its data.

More recently, as part of the DARE UK (Data and Analytics Research Environments UK) programme, which is funded by UK Research and Innovation and delivered in partnership with HDR UK (Health Data Research UK) and ADR UK (Administrative Data Research UK) – a consortium comprising the University of Cambridge, NIHR Cambridge Biomedical Research Centre (BRC), Genomics England, Eastern AHSN and Cambridge University Health Partners – Lifebit set up a federated infrastructure to connect the TREs of Genomics England with health research institution NIHR Cambridge BRC. Its purpose was to enable researchers to access and analyse health data held across these two large-scale data sets. This federated link is believed to be the UK's first demonstration of federated TRE infrastructure, and means more patient data can be studied while maximising security. It is hoped this will translate to faster insights and accelerated patient benefits.

This breakthrough demonstrates how the UK can lead an era of connected data through secure, federated infrastructure. "It is a solution that the rest of the world can use as a blueprint, placing the UK at the helm of genomic research and innovation," says Seeger. Indeed, Lifebit is already working around the world to connect diverse clinical and genomic data sets and is, for example, supporting the Danish National Genome Center in building a federated TRE.

Elsewhere, Lifebit is partnering with top tier pharmaceutical companies, which have the funds and knowledge to develop groundbreaking medicines. Lifebit helps them connect to global data sets that might be of relevance to them. With these data-driven insights, precise and effective drugs can be developed more quickly.

Lifebit aims to ensure its technology is accessible and interoperable across institutions and hospitals, helping these organisations utilise their data in a safe and secure manner, bringing the benefits back to patients. "We need to find ways to standardise data so we have comparable information, and we need to support organisations like the NHS who are trusted to collect and store that data," says Seeger.

Enabling research through setting up TREs is important. "It is in everybody's interest to provide the data for the brightest minds who want to fight disease.

"It is also critical", explains Seeger, "that we collect data that reflects the diversity of both the population and the disease landscape, to bring more equitable impacts in genomic research."

www.lifebit.ai

"Every piece of information can provide a more accurate and earlier diagnosis"

MAKING WAVES

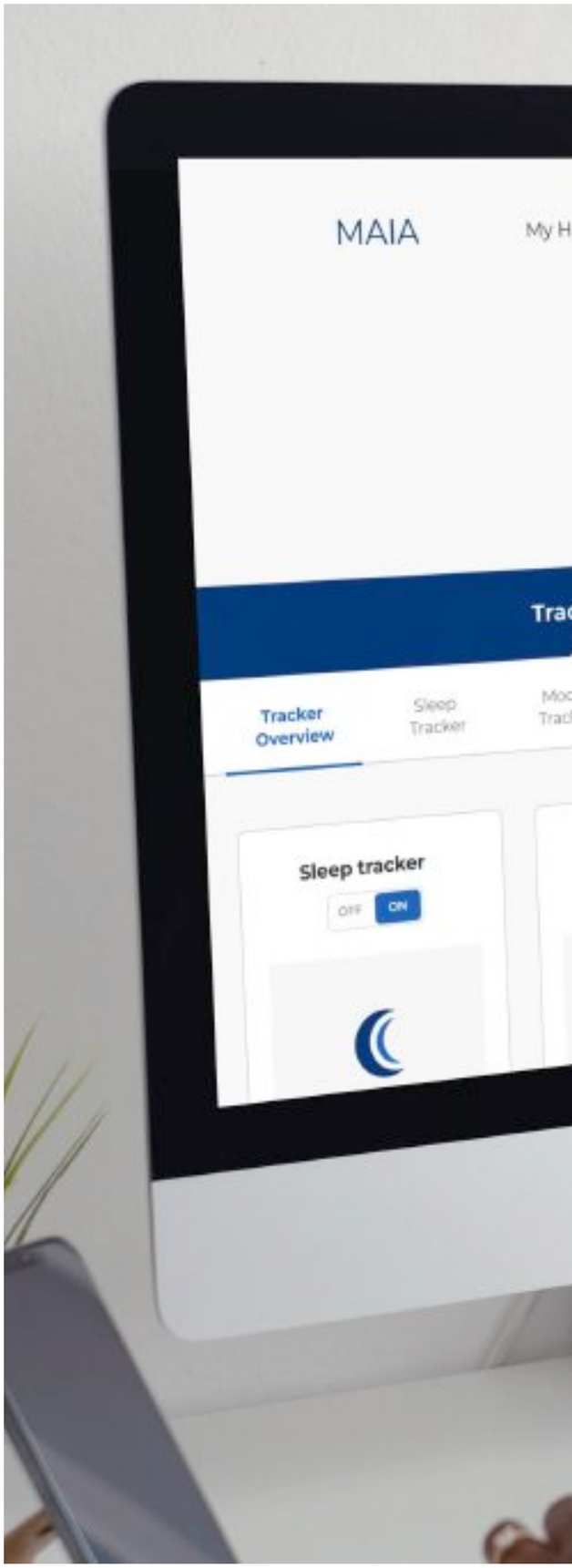
PLAYING A PART IN PREVENTATIVE MEDICINE, MINDWAVE VENTURES' PATIENT ENGAGEMENT PORTAL BRINGS TOGETHER HEALTHCARE INFORMATION IN ONE USER-FRIENDLY PLACE

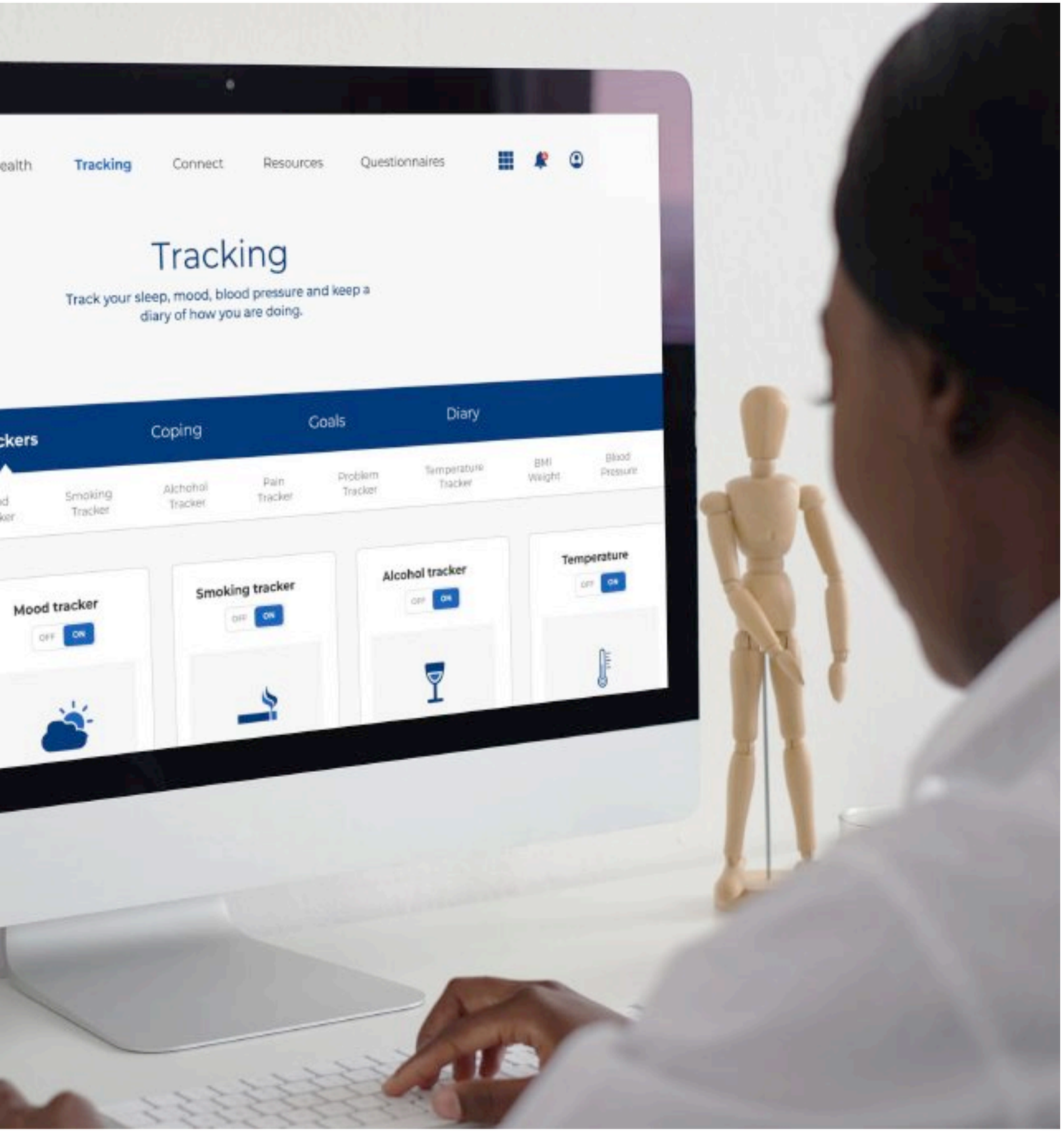
During the Covid pandemic, a step change occurred in the way many people engaged with healthcare services. Patients became accustomed to using digital platforms to manage their health, whether through virtual GP appointments, registering the results of Covid tests or logging symptoms for virus-tracking apps. Kumar Jacob anticipated these developments when he formed Mindwave Ventures in 2014 to create reliable, user-friendly health apps for a range of healthcare clients. The company creates patient engagement portals for the NHS that allow patients to communicate with doctors and share their personal health information with a range of stakeholders.

"The pandemic meant that this area has come into its own," says Jacob. "We work entirely in healthcare and healthcare research, and around 75 per cent of our work is with the NHS. There's a small percentage of work in private healthcare and the rest is with healthcare charities and universities. Our main service is creating patient engagement portals, as many of the NHS regions and trusts want to have greater patient engagement. We started by developing different products for our customers, but then consolidated them into a single product with a modular approach so people can take the bits they want."

These NHS patient engagement portals have multiple benefits for patients and healthcare providers. As Jacob explains, one of the key reasons behind their use is that they allow patients to register important information with doctors and hospitals, which in turn helps with disease prevention.

"The NHS is very keen on early intervention and prevention rather than spending all its money on treatment and curing people," says Jacob. "So the idea is to improve engagement so you can treat patients and catch any symptoms early. This is also very helpful when engaging with patients who have long-term conditions. If you monitor vital signs, you can avoid the need for a patient to make an appointment to see a specialist, which saves time and money for everybody. This is all about better management of facilities.

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Temperature
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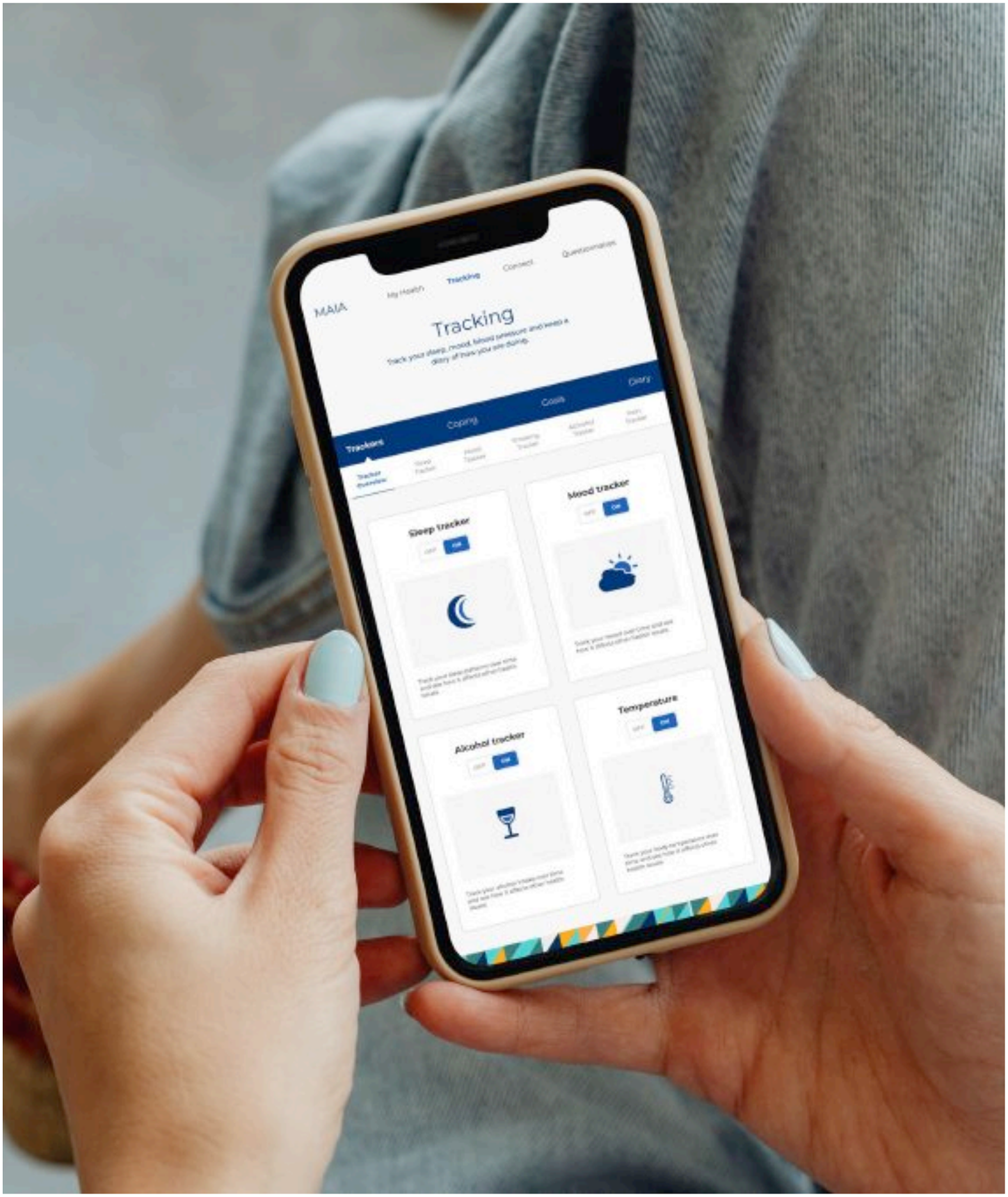

MAIA
My Health
Tracking
Connect
Questionnaires
Tracking
Track your sleep, mood, blood pressure and keep a diary of how you are doing.
Trackers
Coping
Goals
Diary
Sleep tracker
Mood tracker
Alcohol tracker
Temperature

"If you have high blood pressure, it makes sense to share that data so somebody can monitor it – in fact, they don't even need to monitor it, they are just sent an alert if it's too high. That saves somebody having to make an appointment every few months when there is nothing wrong with them. It also means these long-term conditions can be dealt with before they become a crisis. If you can have medical engagement before things get worse, you will get better outcomes."

The patient engagement portals also provide greater communication, not only between patient and doctor, but also between carers, charities and universities. "All of us want more communication now," says Jacob. "If we can share our basic health information, such as step count and heart rate, it can be preventative. People are now happy to share that data with people who might be able to support them. We also have cases where a parent wants to get in touch, for instance, about a child's ADHD – they can then have a level of continuous support that was not previously imaginable."

Jacob came to healthcare after qualifying in finance and then moving into computer games during the boom time of the 1990s. He worked with games developers on a range of classic games – *Wipeout*, *Burnout* and *SingStar*, among them – and began to think about using interfaces and engagement in a more meaningful way. This led him into healthcare and the realisation that existing health apps were not fit for purpose.

"Through my work with video games, I began to think more broadly about applications and ways to make them more engaging to keep the user interested," says Jacob. "When I started to look at health apps in around 2013 or 2014, what I found was that any app that had clinical evidence behind it was terrible to look at and horrible to use, and anything that looked good and claimed to have an excellent user interface had no clinical evidence behind it. So I began by setting up a design company to bring some of the user experience, interface and engagement that has been developed in games and introducing it into something that was more worthwhile. We are now a 100-person company doing design and development of software in Britain and India."

"The idea is to improve engagement so you can catch any symptoms early"

Jacob's team use open-source software when developing their applications. Mindwave currently works for nine NHS trusts and two ICS (integrated care system) regions, as well having three contracts with NHS England on a national level. Jacob anticipates engagement with digital health apps and portals to only increase in the coming years, as patients become more comfortable with using technology and sharing their data.

"We will probably have a choice of applications and people will choose between whichever suits them," he says. "People already do this with repeat prescriptions, which are available in a number of different ways, with people choosing the one that is easiest for them. However, there is still a case for education as some people aren't aware of the number of options they already have, but that will change."

As a company with a good reputation and reliable, secure and user-friendly products, Mindwave Ventures is in an excellent position to drive this move towards digital healthcare engagement. Jacob is seeking to expand into new territories and already has his eye on where to go next. "We have been working with the Department of International Trade to get the support of the UK government as we look to go elsewhere," he says. "We see very good potential to expand in the Commonwealth, due to a shared language. Also, a lot of Commonwealth countries have modelled their healthcare services on the UK system."

www.mindwaveventures.com

BREATHE EASY

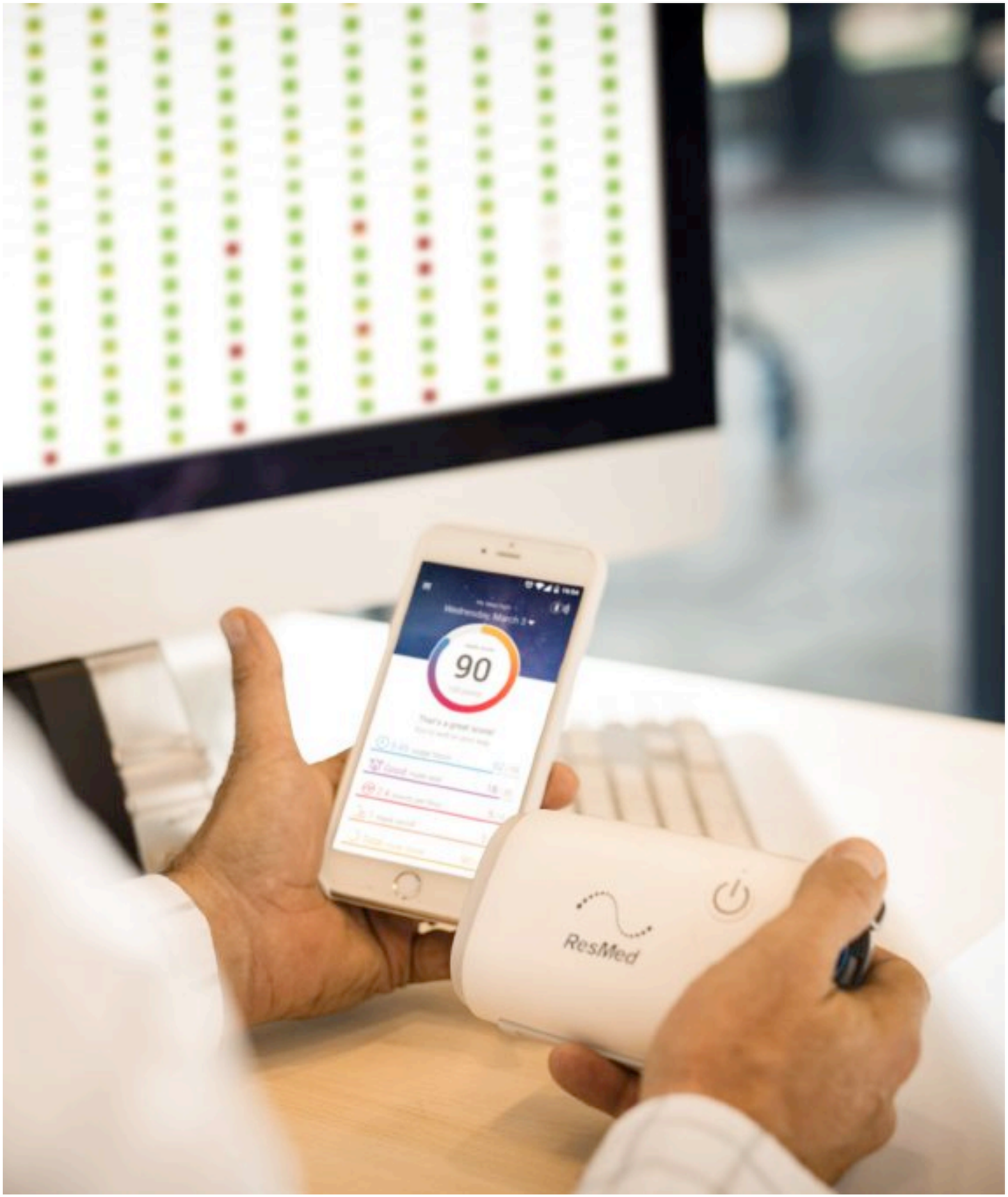
RESMED'S CONNECTED DEVICES ALLEVIATE SLEEP APNOEA AND RESPIRATORY DISEASES WHILE PROVIDING PATIENTS AND HEALTHCARE PROFESSIONALS WITH ACTIONABLE DATA TO OPTIMISE HEALTH JOURNEYS

ResMed, a global leader in digital health and cloud-connected devices, provides respiratory devices and telemonitoring solutions for those who suffer from sleep apnoea, asthma, insomnia and chronic obstructive pulmonary disease (COPD) – the umbrella term for progressive lung conditions including chronic bronchitis and emphysema. The company's connected portfolio of products – ranging from diagnostics and software solutions to sleep-therapy machines, invasive and non-invasive ventilation devices, and related masks and accessories – not only helps patients sleep and breathe better, but also generates detailed clinical data, which ultimately supports clinical decision-making.

"Our comprehensive range of devices and out-of-hospital software platforms support healthcare professionals to help people stay healthy in the home or care setting of their choice. By enabling better care, our digital health technologies can help improve quality of life, reduce the impact of chronic disease and lower costs for consumers and healthcare," says Andrew Huxter, ResMed's Vice President of Northern Europe, Switzerland and Emerging Markets.

As of March 2023, ResMed has supplied more than 20.5 million cloud-connected devices worldwide, connecting patients directly to a clinician. In doing so, it has accumulated more than 14.5 billion nights of sleep and respiratory data points, which are essential for research into respiratory conditions such as sleep apnoea and COPD. With access to a secured real-world dataset, the NHS could generate clinically important insights for the development of novel treatments and care, thereby reducing hospital admissions. According to the National Institute for Health and Care Excellence (NICE), one in eight emergency admissions to hospital is for COPD, making it the second largest cause of such admissions, and one of the costliest inpatient conditions. Around 30 per cent of patients admitted with COPD for the first time are readmitted within three months.

During the Covid pandemic, the NHS transformed its care delivery model by accelerating the adoption of digitally enabled care pathways, incorporating remote monitoring and management through digital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ResMed

health technologies (DHTs). Supporting the delivery of personalised care, DHTs have helped drive improvements for health outcomes. For example, when monitoring devices identify significant changes in a patient's condition, their care team is notified through a digital platform and they can intervene as required, either by using remote management tools to adjust therapy settings or arranging a face-to-face appointment. The technologies can also help tackle treatment non-compliance, an invisible driver of inefficiency, by promoting patient engagement and treatment adherence.

ResMed's connected devices allow patients at different levels of acuity and need to view their therapy usage data and access tailored coaching content to support their therapy journey. Many of the devices come with digital portals or apps that record rates of compliance. "For example, we offer asthma patients Propeller Health's digital solution – a sensor and app that helps users self-monitor their medication uses and adherence," explains Huxter. "This way, healthcare professionals can also monitor their patients' inhaler use remotely via their digital portal, allowing them, if necessary, to explore options to improve usage."

The data from ResMed's digital solutions can be used by healthcare professionals to anticipate potential issues – a preventative measure that ultimately reduces late intervention. Clinicians can support patients at any stage of their treatment, providing advice and encouragement to enhance compliance and outcomes.

"Data transmission ensures clinicians have continuous oversight of a patient's progress and can make timely interventions in response to remotely identified issues. While patients are at the forefront of our approach to design, we also consider the healthcare professionals' needs. They play a vital role in patient care. The ability to access reliable data via our platforms will enable healthcare professionals to improve service delivery and quality of care."

In addition to keeping patients out of hospital, ResMed's solutions aim to help free up capacity and deliver efficiencies. One successful innovation, for instance, has allowed healthcare professionals to enrol their patients onto a mask replenishment service that automatically provides new masks and consumables on an agreed clinical schedule, direct from ResMed to the patient. The flexible system forms a key part of the patient-initiated treatment pathway, as it can help reduce appointments, offer greater convenience, limit unnecessary follow-ups and improve productivity, reducing the administrative burden on staff with local capacity challenges.

"We make meaningful differences in improving patient outcomes by understanding patients' needs, and adapt our approach and processes accordingly"

ResMed's commitment to look at evidence, gather feedback and find solutions has enabled the company to continue supporting the NHS as it faces a post-pandemic recovery. "To help ensure we make meaningful differences in improving treatment, care and patient outcomes, we try to understand our customers' needs, and adapt our approach and processes accordingly," says Huxter. "Proactively working with our partners in the NHS has enabled us to flexibly enhance our offerings, to not only improve outcomes for respiratory patients, but also help drive service-level efficiencies. An iterative cycle of evaluation and improvement has always been baked into our approach to enable delivery of the right care to the right patient at the right time."

As the digitisation of the NHS continues, so does the adoption of innovations that enable more patients to access the benefits that these technologies bring. The introduction of a national DHT reimbursement framework and tariff payment system, says Huxter, would help the NHS to offer these transformative technologies more widely, and help it meet healthcare objectives in the future.

For now, the proactive support from providers such as ResMed ensures the NHS can continue to encourage innovation, tackle health inequalities and empower patients to achieve better health outcomes – in order to face the next 75 years with confidence.

www.resmed.co.uk

MESSAGE RECEIVED

WHETHER WORKING ACROSS GOVERNMENT OR HEALTHCARE, SYNERTEC DELIVERS IMPORTANT COMMUNICATIONS DIRECT TO THE PUBLIC'S INBOX, MOBILE PHONE OR LETTERBOX

At some point during the pandemic, just about everybody in the country received a letter in the familiar blue NHS-stamped envelope asking the recipient to have their Covid vaccine. At the same time, they may well have received a similar invitation direct to their phone in the form of an SMS text message. In both cases, the message came not directly from the NHS but from Synertec, a UK-based software company that since 1999 has specialised in capturing data, transforming it into any format and delivering it to the public on behalf of clients that include major commercial businesses as well as local councils and NHS trusts.

"It was a tremendously busy time for the company, but it was really helpful that our ethos has always been to do good," says Tom Baldock, Synertec's Managing Director. "The Covid campaign did a huge amount of good for the country, and I am just as proud of our ongoing work informing patients to have their breast cancer screening. Our belief has always been to make sure we are providing value to the NHS by helping ensure that clinical or clerical staff aren't stuffing letters in envelopes, and ensuring the patient receives the communication in the format they require because if patients have better control over their own


PELTOR

healthcare, then their outcomes tend to improve. That meant the challenges presented by the Covid campaign were relatively easy to overcome as long as we based our decision-making on those desired outcomes."

Synertec was founded in 1999 in the South West and is still headquartered in Wellington, Somerset, with additional offices in Bristol, Warrington and Milton Keynes. Its success is based around Prism, a piece of proprietary software that allows the company to take data from clients in multiple formats. This secure, robust and flexible approach allowed for the simple storage and transmission of data in a way that was groundbreaking.

"At that time, a lot of people were asking for data to be supplied in a specific format, but we changed the game by taking it in any format so the customer didn't need to change what they were doing," explains Baldock. "That was the premise of our software package. We then built software that can produce communication from our clients in any format, whether it's audio, braille, EasyRead, SMS, post, email or web portal. There are no additional costs attached to specific formats, as the focus is on accessibility. Our ethos has always been that we do not exist to make money out of other people's misfortune."

Baldock has been the Managing Director of Synertec since 2020, having worked in a variety of roles there after joining from university. Indeed, he did some work for the company at the age of 11, a couple of years after Synertec was founded, when his father worked with the business.

This means he has grown up with a deep understanding of the company and its commitment to deliver increased value for clients such as the NHS. As well as offering competitive pricing, he is also determined to maintain the highest standards, and notes with satisfaction the 99.95 per cent key performance indicators that Synertec achieved for the Covid campaign, a quantifiable measure of the company's success.

The campaign was all the more remarkable given that Synertec was itself operating under Covid conditions. The company had already completed a successful 2019 national flu vaccination campaign on behalf of the NHS, but the scale and importance of the Covid vaccination campaign still required investment and upscaling of equipment,

"Our ethos has always been that we do not exist to make money out of other people's misfortune"

as well as the creation of a dedicated team within the company to focus entirely on Covid. The results were spectacular.

"I believe it has been described as the most successful vaccination campaign in history thanks to the speed with which it had been carried out and the number of people it reached," says Baldock. "As a business, we are incredibly proud to have played a small role in this. We went from doing it predominantly through paper to now predominantly digital.

"That classic blue envelope, which everybody now recognises... that came from us, as did all the text messages. We managed all of the communication in three or four months under Covid conditions, working entirely from home. We learned a lot of lessons, but it went really smoothly. It was a remarkable period for the business."

This was, in part, down to Synertec's in-built flexibility. Not only can the company handle data in any format, but it also has an unparalleled number of delivery options. "We can do it ourselves, or hand it back to the client to distribute," says Baldock. "We can deliver it digitally, via portals, integrated with other providers, as an SMS, an email or through the post. That flexibility is our differentiator.

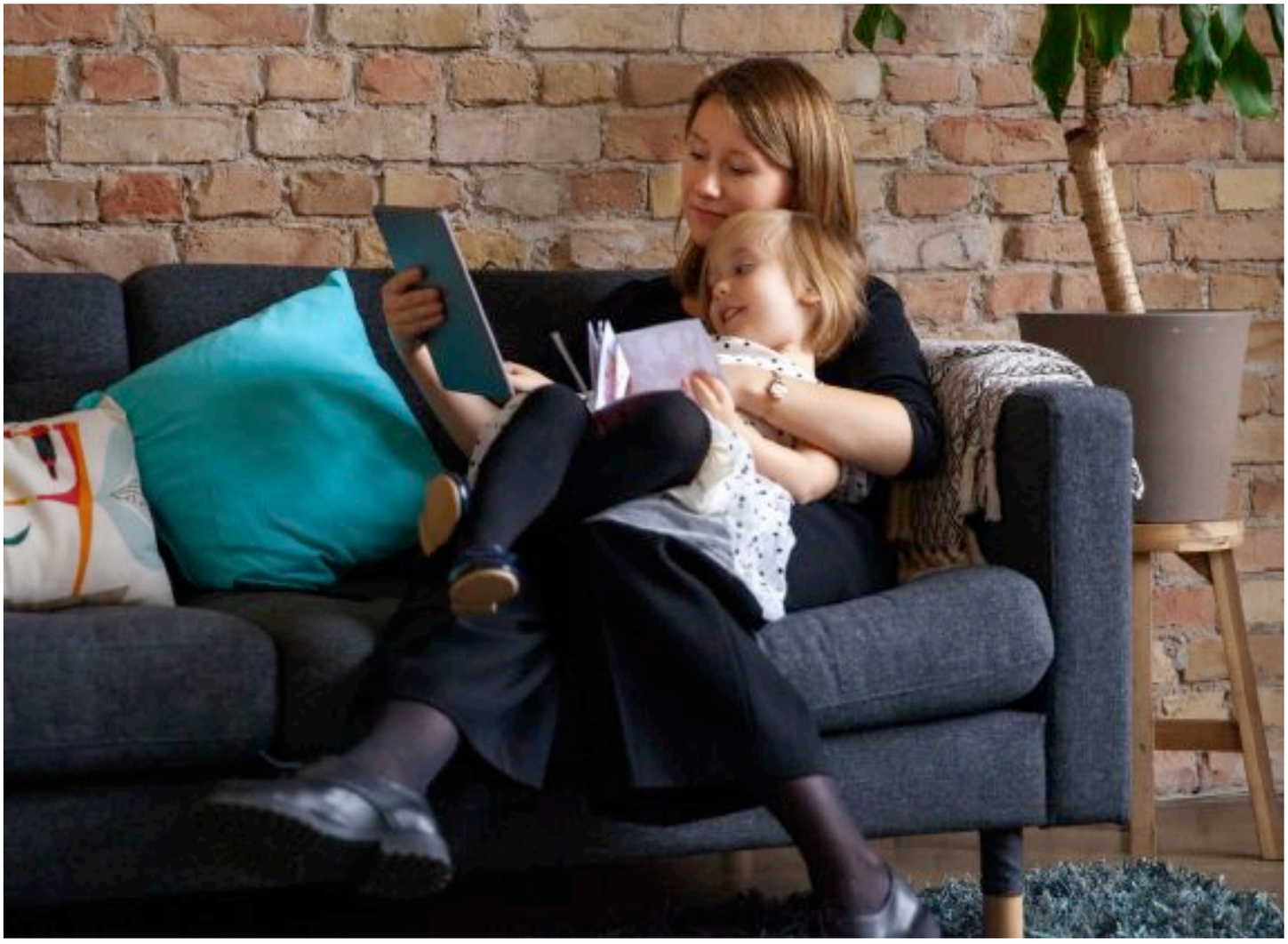
"For the Covid campaign, we had the ability to react to change and to be very flexible without the country incurring additional costs. We provide a value-added service that helps our clients achieve their goals, which we do by listening to the customer and then building a solution."

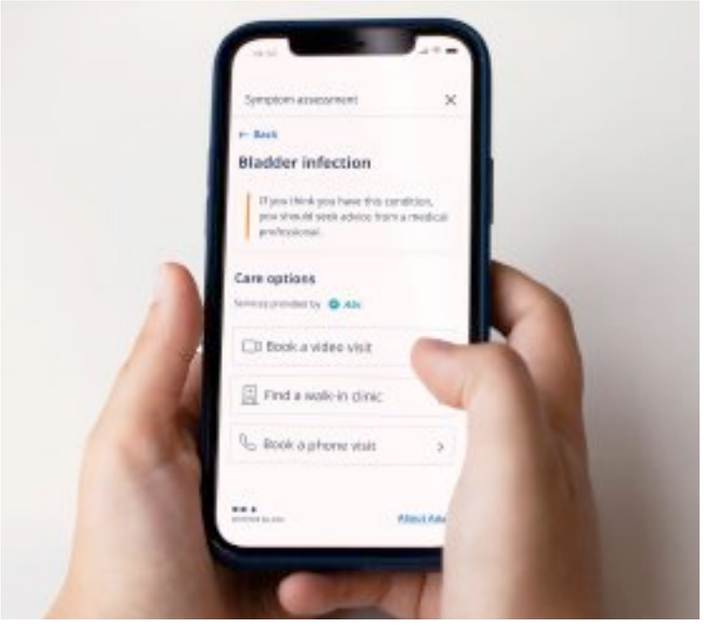
Baldock envisages a bright future for Synertec as the company continues to work with the NHS and other healthcare providers to ensure patients have access to the information they require to manage their own healthcare requirements.

Additionally, Synertec seeks to increase its work with local councils, bringing the knowledge and expertise it has acquired with health into areas such as benefits and housing. "One thing that motivates us is the conviction that it isn't fair for somebody who is blind to be denied access to the information they require to make informed decisions about their own lives," he says.

"This business will continue to progress in a way that helps people receive the communication they need in the manner they desire, and that will be done by continuing to listen to clients and customers."

www.synertec.co.uk




Symptom assessment
Back
Bladder infection
Care options
Book a video visit
Find a walk-in clinic
Book a phone visit

TOMORROW'S TRIAGE

A REGULATED MEDICAL DEVICE, ADA HEALTH'S SYMPTOM ASSESSMENT AND CARE NAVIGATION PLATFORM SUPPORTS MILLIONS OF PATIENTS – POINTING THEM IN THE RIGHT DIRECTION

As an NHS paediatrician, Dr Claire Novorol experienced first-hand some of the challenges facing doctors in the UK. While studying for a PhD in Cambridge, where she was surrounded by thriving biotech startups, Novorol began to consider whether some challenges faced by the NHS could be relieved by digital technology. In 2011, she formed Ada Health with Dr Martin Hirsch and Daniel Nathrath as an AI-driven health assessment tool that enables patients to perform self-assessments, receive immediate triage guidance and connect to the most appropriate care options.

Ada Health is a Class IIa regulated medical device – one of the first in the field to achieve this classification – and is available in more than 150 countries. So far, over 31 million assessments have been completed using the platform. "It's about supporting doctors in primary care by enabling patients to manage their own health, then helping those patients to navigate the system," explains Novorol.

Many people look up their symptoms online, but it can be difficult to know which information is reliable and relevant, often leading to confusion and unnecessary anxiety. "Ada offers an easy-to-use, personalised assessment that people can access anywhere at any time, supporting informed decision-making and safe navigation to appropriate services," says Novorol. "This helps free up doctors to focus on patients who most need their care, creates efficiencies across the system and improves the patient experience."

Ada's AI-based assessment asks patients questions about their symptoms and health history and provides guidance on likely causes and relevant next steps. Patients are then directed to appropriate NHS care and other relevant services depending on their needs and urgency. For clinicians, Ada provides a clinical handover, delivering information to support a consultation. This enables additional benefits to be realised, with time previously spent gathering information in a consultation now available for richer conversations around care options and next steps.

"We are acutely aware of the need to reduce unnecessary pressure on healthcare systems," says Novorol. "We can help schedule appointments with a GP, but many patients don't need to see a GP. They can self-care or access an alternative service. For example, for knee and lower-back pain, we see that around 80 per cent of patients trying to access a GP could instead navigate to other forms of appropriate care, such as a physiotherapy, self-directed exercise and lifestyle change support or a community pharmacy."

A large team of doctors ensures that Ada's medical knowledge is continually improved and optimised, while a practising NHS doctor is the head of medical safety. Consequently, reports and analysis by sources as respected as Stanford University and *The British Medical Journal* attest to the accuracy and safety of Ada's assessment. In the UK, Ada Health partners with GPs and healthcare systems to ensure patients are directed to the best services for their needs from across the local system.

"What the NHS does and what it stands for is so important – complete end-to-end healthcare with equity of access," says Novorol. "Primary care is extremely stretched right now, and that affects a GP's ability to deliver high-quality continuity of care. Digital technology plays an important role in streamlining patient journeys and relieving some of the burden on clinicians.

"Over the next 75 years, we need to protect all that is great about the NHS and leverage new types of technology, such as Ada, to enable us to continue delivering that type of comprehensive care at scale in a new era."

www.ada.com

UNITING DATA FOR EVERYONE

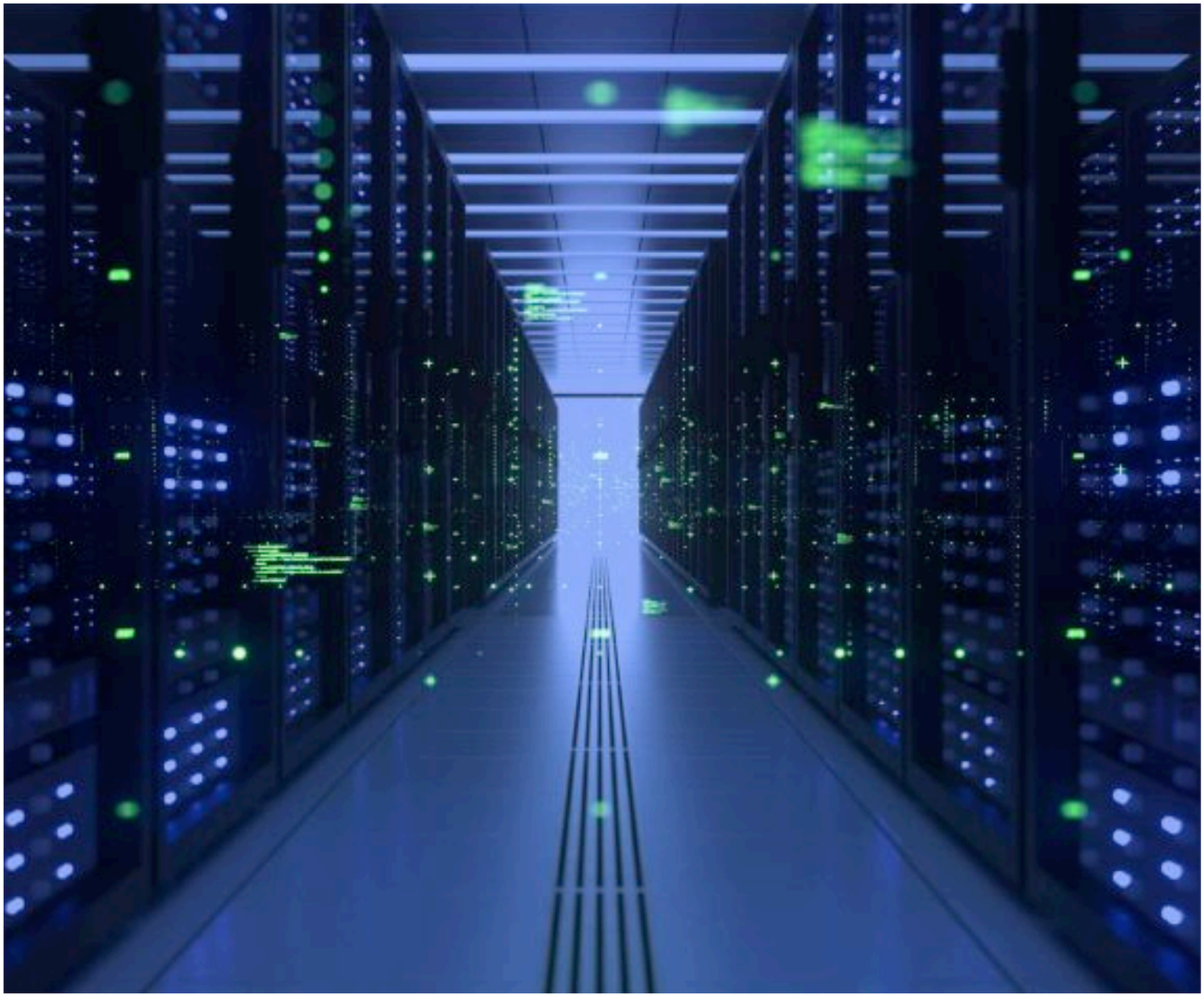
THROUGH GROUNDBREAKING PRIVACY-PRESERVING TECHNOLOGY, FITFILE IS SAFELY AND QUICKLY UNLOCKING HEALTH DATA TO IMPROVE PATIENT CARE AND OUTCOMES

"Too often, data isn't used at all or is used in an unconnected way, but our platform is designed to change that," says Philip Russmeyer, founder and CEO of FITFILE, which has developed a software platform to revolutionise access to united data without compromising privacy. The UK-based company is working with an ever-growing number of NHS bodies and other partners, allowing them to make better-informed decisions about individuals' health.

The informed and targeted use of more reliable data offers a leading solution to alleviate resourcing constraints, improve treatments and prevention, and drive better outcomes. With access to the right data, clinicians and researchers can better target treatments or develop entirely new ones – but only if legitimate concerns about privacy and sensitivity are addressed. There are billions of gigabytes of real-world health data that have accumulated in silos throughout the health system and these are growing rapidly each year. If this "stuck" data can be safely and securely connected, huge improvements can be unlocked, including "a thorough understanding of individuals and their health," says FITFILE Health Sciences Director Dr Laoise Hook, a former NHS physician.

"We want to transform the scale and value of health data usage, but there are huge restrictions on what can be used," explains Russmeyer. FITFILE's groundbreaking platform, however, incorporates the most advanced privacy-preserving technology available. "We have the highest level of privacy preservation, in full compliance with the GDPR, ISO27001, Cyber Essentials Plus, DSPT, DCB 0129 and all other applicable standards."

There are several patented parts to the FITFILE platform: the company's unique InsightFILE uses sophisticated cryptography to anonymise data irreversibly within each source before connecting anonymised data records across all sources; HealthFILE unites any kind of data in identifiable, pseudonymised or tokenised form; and FITConnect controls the release of data with full transparency and auditability. This allows a unique level of insight, transforming the breadth and depth of information to drive vastly improved research, planning and care. Data holders gain access to cleaner, more accurate data, presenting a much clearer window into patients' health, while the information can also be safely supplied to researchers developing new treatments and



planners driving improved resource allocation at the population health level.

The data made accessible by FITFILE is highly targeted to specific problems, such as "the early identification of individuals who might need screening or an uplift in their care pathway," says Russmeyer. "We are working on a project around a particular chronic condition and believe 25 per cent of patients miss their treatment window because the data isn't accessible or collated. This can have huge health repercussions for individuals and cost implications for the NHS. By bringing that data together, we can help make an improvement. That is the value we bring to the NHS."

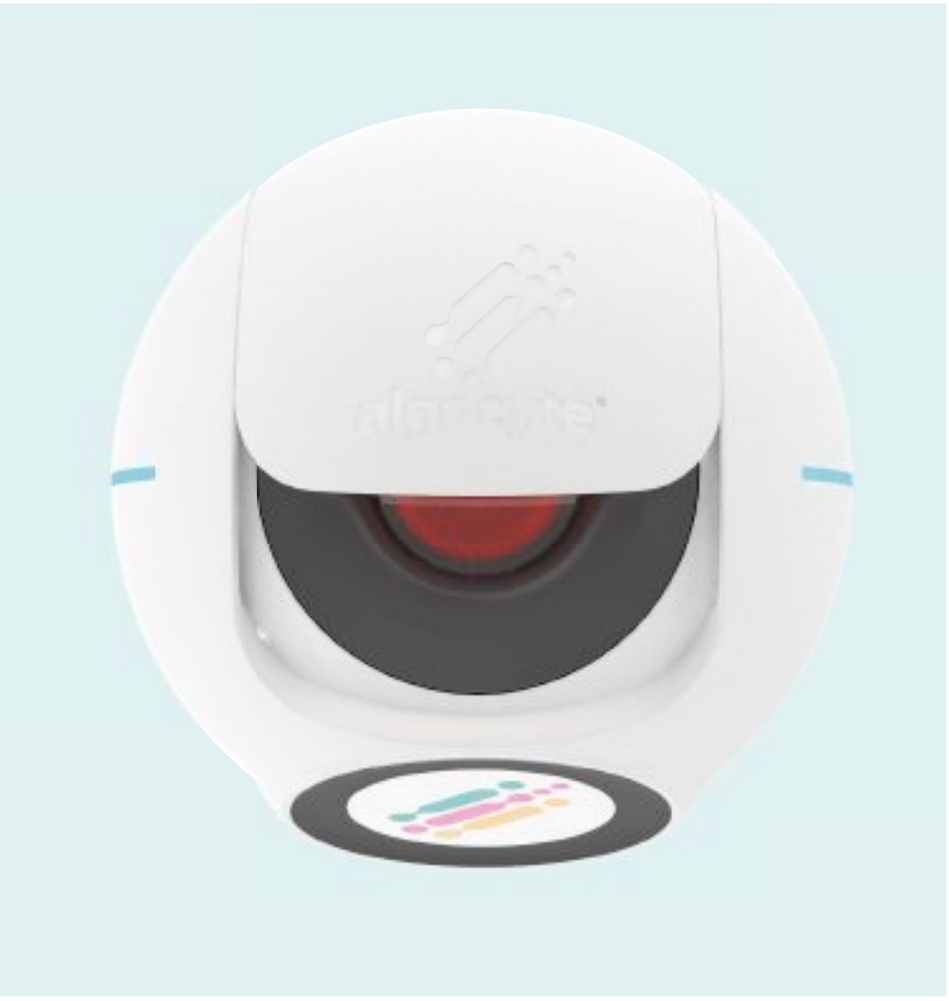
"We are working with the NHS and other health services to make sure the data is used appropriately and safely, but also that it's actually being used," adds Hook. "Over the coming years and decades, data will become more important. We should use everything available to ensure the needs of patients can be met. Data is one of the NHS's most valuable assets – not simply financially, but in the potential benefits for patients."

For the future, FITFILE is about ensuring that data is used to really individualise care and make better healthcare more egalitarian.

https://fitfile.com

AN EARLY WARNING

OXFORD IMMUNE ALGORITHMICS' INNOVATIVE HANDHELD ALGOCYTE DEVICE IS SET TO TRANSFORM DISEASE DETECTION FOR MEDICS AND PATIENTS



There is a gap in medicine between the cutting edge of research and the reality of practice. This frustrated Dr Hector Zenil while he was working at the Unit of Computational Medicine at the renowned Karolinska Institute in Stockholm. He believed that many of the supposedly "incurable" diseases he observed would have been curable had they been detected earlier.

Zenil, who has two PhDs and has worked widely in both academia and industry, producing pioneering research in AI applied to cell and molecular biology, began to think of ways to capture disease earlier, using technology to end "unnecessary suffering". "We have made huge advances, but they are mostly in specialised medicine and not many people have access to that technology," he says. His solution is the Algocyte, a technology developed by Oxford Immune Algorithmics, a global company based in Reading that he founded in 2018 and of which he is CEO and Chief Visionary Officer.

The Algocyte enables people to conduct blood tests with a handheld device and upload the results to a platform that analyses them using intuitive AI. In time, it could be deployed at home as easily as a thermometer, with the analysis going to the GP, helping to transform the way we engage with healthcare. "The experience that our grandparents had several decades ago is very similar to ours today," says Zenil. "We still visit the GP; they wouldn't notice much difference. We go to the practice, sit in the waiting room, then talk to the GP about our symptoms. It is the same all over the world."

The remarkable device, developed with the University of Oxford, is easy to use and can analyse a pinprick of blood in ten minutes, performing a full blood count and removing the need for costly and time-consuming phlebotomy appointments. This means that patients in rural areas could get the same access to healthcare as those in the city, and those undergoing treatment for cancer would not need to make a risky trip to a hospital.

The AI platform has been developed in collaboration with doctors and nurses, and is so sensitive that it will learn, over time, the unique characteristics of an individual's blood, allowing for even earlier detection and diagnosis. NHS

professionals believe the innovation will save them up to three hours per week. "This device won't immediately replace all lab services, but we think it is the future and that people will conduct most of their blood tests at home," says Zenil.

While the Algocyte will initially focus on full blood counts for cancer patients, the potential is vast. It can already perform other blood tests, and more will be added. Trials are being undertaken in Canada among isolated indigenous communities, as well as with vulnerable children such as those with Down's syndrome who find hospital blood tests stressful. Zenil anticipates the Algocyte will be popular with GPs, as it will allow for a faster and more accurate diagnosis, ensuring patients receive better treatment and support.

"Health systems worldwide are seeking to transform from cure to prevention," says Zenil. "That is a focus of the NHS, and the transformation will come externally. There needs to be a political will and a change in attitude from healthcare consumers. The immune system is our best early-warning system – what we need to do is monitor the monitors."

www.immunealgorithmics.com

HUMANISING HEALTHCARE

FOUNDED IN 2002, QUALTRICS ENABLES THE NHS TO COLLECT, ANALYSE AND ACT ON EXPERIENCE DATA, USING AI TOOLS TO IMPROVE PATIENTS' HEALTHCARE AND DELIVER MORE PERSONALISED EXPERIENCES

Empathy is essential for effective healthcare. But embracing empathy isn't easy when healthcare professionals have administrative burdens and time-consuming barriers to overcome, while embedding empathy into practice is equally complex. That's something Qualtrics seeks to combat through experience management software, which enables the NHS to listen to the needs of 1.3 million staff and devise solutions to improve their working life for the benefit of themselves and patients. Qualtrics works with the central teams at NHS England to support national staff and patient experience improvement programmes, plus locally with NHS trusts to help power their research, staff and patient surveys.

"I had a fire in my belly to drive a more empathic experience in healthcare," says Qualtrics' Chief Medical Officer Dr Adrienne Boissy, a practising neurologist whose previous roles included Chief Experience Officer of Cleveland Clinic. "Qualtrics serves thousands of brands with a focus on experience management, which is the notion that technology can listen with intent, explore all the information we have, use deep analytics to understand the emotional experience, and then offer opportunities to act. It will automate actions so that people feel heard, seen and valued."

Qualtrics can "listen" to a range of sources – staff and patient surveys, emails, phone calls and so on – and use AI to explore common themes. The resulting insights can be used to create a better experience for staff, which will benefit patients throughout their healthcare journey, and supplement the NHS's "People Promise" to support the workforce over the next decade.

"The NHS has promises, which include compassion, inclusion and teamwork – and these should define a culture so that the people who touch the brand feel those values and promises every day," says Dr Boissy. "If people can't access the system and are suffering then it's not compassionate. Compassion and empathy should be baked into how an organisation operates to drive out individual pain at scale."

Qualtrics collects huge quantities of data, which can be analysed for emotion, intent and effort to derive insights and drive efficiencies. For instance, when it comes to cancer patients, it might make more sense to measure from first contact to the moment treatment starts as opposed to the first appointment – because, empathically, the moment of treatment is most important for the patient. One thing Dr Boissy makes clear is that this requires centralised, interconnected data – listening to staff and patients at a purely local level is useful but does not present the whole picture. In Dr Boissy's words, "We need to listen to the whole orchestra, not just the violins."

Qualtrics can connect to more than a hundred platforms and workflows to identify and automate menial processes, freeing up healthcare professionals to focus on more complex, meaningful work. And when healthcare organisations make experience a priority, it results in reduced survey costs, faster issue resolutions, better quality and service of interactions, and better access to information and services.

"There is so much pride in the NHS both from patients and staff," says Dr Boissy. "The way you build and maintain trust is you keep your promises consistently over time so that what you do matches what you say you will do, and people can see and feel that. I was blown away by the people in the NHS who are fighting and advocating for all the right things. It's a very compelling thing to be part of."

www.qualtrics.com/uk

BRIGHT SPARK

HEALTH TECH PROVIDER WIFI SPARK'S INNOVATIVE INTERFACE PUTS ENTERTAINMENT AND COMMUNICATION AT PATIENTS' FINGERTIPS, HELPING HOSPITALS TO DRIVE EFFICIENCIES

"WiFi SPARK is working to improve the patient experience and unlock the potential of the technology that already exists within the NHS," says WiFi SPARK's Director of Business Development, James Morriss. "There are many tools and resources available to the NHS already, but uptake can often be hampered by a lack of patient engagement and the underlying NHS infrastructure."

Improving the patient experience is about more than just happy patients. "Better informed patients recover quicker and are less likely to return to hospital," says Morriss. "Our goal is for all patients to feel informed and involved in their care, while ensuring that no patient is isolated from resources because of digital inequality."

It is 20 years since the NHS launched its national programme for IT that gives clinicians a complete picture of a patient's care, and ten years since the shared decision-making guidelines "No decision about me without me" were outlined. However, WiFi SPARK believes real progress could be made if we concentrate on two key initiatives: the first is for health tech providers to form new partnerships; and the second is for the NHS to take advantage of the infrastructure it already has, to get solutions to the bedside. "We need partnerships because nobody has all the answers to the challenges that the NHS faces, and we need new thinking on delivery because we know the NHS lacks the resources to deploy all the technology it needs from scratch; and it needs to make better use of its existing infrastructure."

WiFi SPARK is currently forming partnerships with developers who have the perfect solutions – from meal ordering apps, to personal health records, to virtual ward rounds. The aim is to offer trusts a catalogue of time- and cost-saving apps that can be accessed via WiFi SPARK's Wi-Fi infrastructure and bedside units, and to put information into the hands of patients to support discharge and recovery.

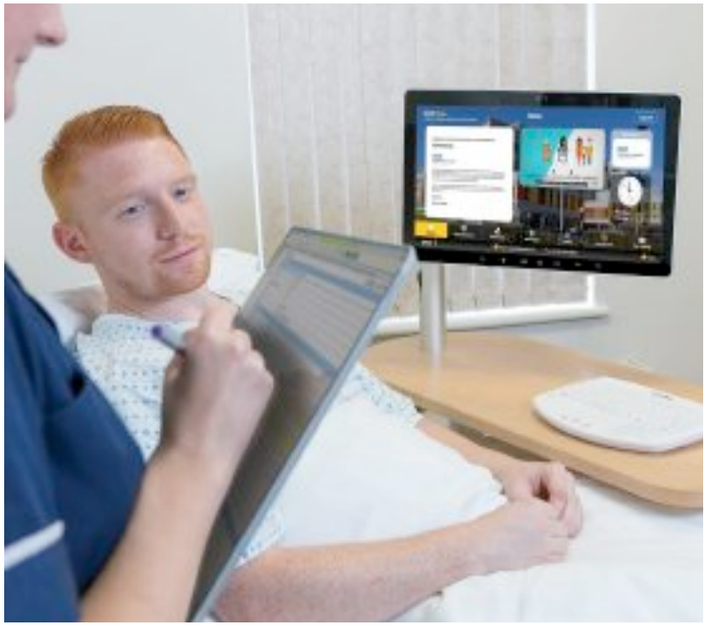
"Our Wi-Fi infrastructure and bedside units are in use in over 75 per cent of NHS trusts," says Morriss. "Because of this, we are well placed to help in the delivery of technology and information that can make a real difference."

WiFi SPARK's technology is already improving the patient experience. Its guest-access Wi-Fi, known as SPARK Connect, contains an entertainment and information platform called SPARK Media: Lite, which is free to the user. This platform can support trusts to signpost patients to information and resources. Specific examples include signposting patients away from the emergency department and informing them of other services, such as urgent care centres, which can be accessed locally.

The company's bedside units are going through a significant upgrade programme. Working with individual trusts, the units will be upgraded to modern, flexible devices that can support a whole range of applications, information and services. "A use case for these devices that is being widely discussed is virtual ward rounds to support patient discharge," explains Morriss. By facilitating video consultations at the bedside, it is possible for clinical staff to interact with, and potentially discharge, patients remotely. This has the potential to dramatically speed up the discharge process in many cases.

"Working together with our NHS clients, we firmly believe that we can make a tangible, sustainable difference to patient outcomes," says Morriss, "and address some of the pressing issues faced today and in the future."

www.wifispark.com



PICTURE PERFECT SMILES

BY USING ANIMATION TO EMPOWER PATIENTS ABOUT THEIR ORAL HEALTH AND TREATMENT, CHAIRSYDE IS USHERING IN THE FUTURE OF DENTAL CONSULTATIONS

Shortly after Dr Loven Ganeswaran qualified as a dentist, he embarked on an aid mission that inspired him to create the revolutionary dental consultation platform, Chairsyde. "We visited Sri Lanka in 2011 to deliver dental treatment to orphanages following the civil war," he says. "I taught the children a song to guide them in cleaning their teeth. When we returned two years later, their behaviour change towards better oral health was remarkable. Back in my NHS practice in the UK, I noticed a similar sense of empowerment in patients when I drew pictures to explain their conditions, treatment options and risks. It significantly improved their understanding, trust, treatment uptake and dental hygiene adherence."

With the help of his friend Kiri Sivanandan, who has a technical background, and input from other dental professionals, the drawings evolved into a platform hosting patient-friendly animations, to which the pair gradually added other features. They officially launched Chairsyde in 2020. A year later, it won Innovation of the Year at the Dental Industry Awards, and there is now a team training and supporting dentists "to embrace a new era of patient consultation".

Dentists can provide in-chair or remote video consultations using Chairsyde – from anywhere, with any device. Consultation notes, priced treatment options and animations explaining conditions, treatments and risks can be emailed to patients for informed decision-making, in line with GDC (General Dental Council) standards. The platform stores consultation data, case histories and a comprehensive activity log, which supports evidence-based risk management and offers dentists peace of mind.

Chairsyde is an economical, efficient way to deliver patient-centric care, including remote aftercare between consultations. Dentists can improve patients' understanding of their oral health and engage them in preventing and detecting issues. This holistic approach is achieved through patient-friendly information, shared decision-making and by working collaboratively with the patient.

Good oral health is linked to wellbeing, and as the pressure increases on NHS dentistry, Chairsyde's AI is automating solutions and personalising care like never before. "We're helping to increase capacity by minimising the administrative workload of dentists, improving access and supporting preventative care. This will reduce the burden on the NHS – and bring smiles to even more patients."

www.chairsyde.com

WAVES OF KNOWLEDGE

HEALTHWAVE EMPOWERS PATIENTS TO EASILY ACCESS INTEGRATED HEALTHCARE AND TAILORED LOCAL RESOURCES THROUGH A COLLABORATIVE KNOWLEDGE HUB

When Oliver Sleeman and Dr Rehan Symonds, co-founders of Healthwave, met in Cornwall, both agreed that in policymakers' conversations about the provision of healthcare, the voices of the people who actually use the services were rarely heard.

The pair had seen first-hand in Cornwall – one of Britain's most deprived counties – the difficulties people had in accessing services and the knock-on impact of health inequities. "Our view is that you need to involve the grassroots, because that's where most of the best ideas – and the power to deliver them – are," says Sleeman.

Healthwave delivers easy access to integrated care in your community. Using a methodology of "engagement, education and empowerment", Healthwave does the research and works with health and care services and local authorities to help create tailored collections of resources relevant to local needs.

"There's no point in throwing out a one-size-fits-all solution," says Sleeman. "You need to tailor packages of support around the community. It's a heck of a job finding out where all these services are. NHS colleagues need enormous black books stuffed with contacts and resources to keep track and help others navigate them. We make their lives easier by creating a platform where all that information is in one place and can be easily shared."

Through its work, Healthwave has helped residents of Ashfield, Nottinghamshire, discover projects that enable them to access green spaces and outdoor activities – preventative activities that, ultimately, ease the strain on the NHS. In Wolverhampton, the company provided equipment for locals to translate Healthwave videos; this was a vital service, since more than 70 different languages are spoken in the area. In Peterborough, meanwhile, where young mothers had issues with affordable data on their phones, preventing access to maternity care services, Healthwave helped them use databanks, while educating them about the services themselves.

"People who are excluded aren't always the people you might think," says Sleeman. "It might be you or me. It's not just seldom-heard groups, it's everyone, which is where we come in. We ensure that people are front and centre."

www.healthwavehub.com

PLATINUM QUALITY

BASED ON FIRST-HAND EXPERIENCE, LEECARE SOLUTIONS' USER-FRIENDLY NEXT-GENERATION TECHNOLOGY IS SET TO ENHANCE THE LIVES OF PEOPLE IN RESIDENTIAL CARE

The ability of health professionals to provide the best possible care for residents, clients, patients and communities is fundamentally dependent on having high quality support systems. Leecare's Platinum6 suite of comprehensive clinical and operational management technology is designed to be just this.

The programme is suitable for healthcare providers in any environment but is particularly effective at supporting the complex and challenging area of caring for older people in a residential environment as managers and care staff can focus on the quality of care for residents. It also increases efficiency by improving reporting and reducing duplication and paperwork.

With these aims in mind Dr Caroline Lee, Leecare CEO and a nurse practitioner in gerontology, created the Platinum suite of programmes, now in its sixth iteration. Platinum6 allows clinical staff to develop a detailed electronic record of a resident's needs, preferences and desires. "People often use person-centred care or holistic care in their rhetoric, but very often don't reflect this philosophy in their care plans or know what these phrases really mean," says Petrina Turner-Benny, Leecare's Deputy CEO and Executive Director UK. "With Platinum6, you not only see if a resident has had a shower or a meal, but how hot they like their showers, what kind of toiletries they like and how much they can do for themselves. These nuances make the care provided truly person-centred."

Platinum6 includes a real-time alerts dashboard that provides immediate updates to staff on a resident's care and clinical and operational risk, alongside broader functions such as training, maintenance, policy, communications, and formal report and care plan generation. Staff external to the organisation also have access, but the use of individual staff permissions means data security and clinical quality are protected.

Any IT solution must constantly evolve, while the best of them are shaped by real-world users. The Leecare team consist of clinicians, such as Lee and Turner-Benny, who have first-hand experience of the sector, with the company operating across Australia, New Zealand, Singapore, Africa and China.

"Platinum6 differs from a lot of the competitive products because most of our management team have worked in, consulted to, or managed healthcare provider organisations," says Turner-Benny. "We understand how our clients operate."

www.leecare.co.uk

THE FUTURE OF HEALTHCARE

PROPELLER HEALTH'S DIGITAL THERAPEUTIC PLATFORM HELPS PATIENTS AND CLINICIANS MANAGE ASTHMA AND COPD THROUGH DATA-DRIVEN INSIGHTS AND BEHAVIOUR CHANGE

Patients with chronic respiratory conditions such as asthma and COPD (chronic obstructive pulmonary disease) face many challenges in managing their health, including understanding what triggers wheezing and exacerbation, often requiring emergency care. Clinicians also face challenges, in the assessment of a patient's condition and a lack of data to inform and optimise treatment, such as visibility into a patient's medication use and underlying behaviour.

At the heart of these challenges is non-adherence to medication, which precision digital health company Propeller Health has proven to solve. It captures objective medication use and symptom data and "translates this data into actionable insights for both patients and providers," says Susa Monacelli, General Manager. "Patients stay healthier as they adhere to their treatment plan, and clinicians have objective information that informs treatment decisions. They are able to see if a patient is adherent but still exacerbating, for example, and adjust their treatment plan accordingly."

Since 2017, Propeller has been adopted across the NHS's Specialised Respiratory Services – Severe Asthma. In that time, the platform has made an impact in a real-world setting, improving patient outcomes, informing treatment decisions, optimising clinical interventions and adding value to stakeholders. "Propeller is central to our service delivery and is now considered as the new standard of care to support adherence assessment and inform treatment pathways," says Professor Adel Mansur, Consultant Physician at University Hospitals Birmingham. "Our experience with Propeller has demonstrated how treatment decisions have been impacted and the choice of medication optimised, in some cases avoiding inappropriate escalation to biologic treatment, which is expensive and commits a patient to such treatment for life."

Propeller's partnerships with NHS providers and academic organisations further substantiate clinical evidence. Launched in 2023 with £2.1 million of funding, its research initiative with King's College London and TEAM-care (technology enhanced integrated asthma care) demonstrates the benefits of using Propeller in a paediatric asthma population and its impact on local services.

Ultimately, Propeller is committed to shaping the future of healthcare in the NHS, improving patient care and outcomes.

www.propellerhealth.com

TAKING CONTROL OF CANCER

VINEHEALTH COMBINES THE WORLDS OF HEALTHCARE AND DATA SCIENCE TO EMPOWER CANCER PATIENTS TO MANAGE THEIR OWN CARE FROM HOME

In 2018, former NHS doctor Rayna Patel and data scientist Georgina Kirby realised there could be an integrated patient-led digital way to ensure people receive the best possible personalised care for their cancer. Utilising AI and behavioural science, they developed Vinehealth – clinician software and a patient app to improve the quality of patients' lives, streamline clinicians' workloads and provide real-world anonymised patient data capable of transforming cancer healthcare and pharmaceutical research.

"Many factors influence treatment success," says Patel, Vinehealth's CEO. "These include patient behaviour, clinician workload and treatment toxicity. Studies show that collecting consistent patient-reported data leads to 20 per cent longer survival through better patient self-management and more personalised clinical decision-making. This improves patient outcomes, improves clinician efficiency and reduces pressure on healthcare resources."

Vinehealth gained endorsement from NHS England's National Innovation Accelerator due to its alignment with the NHS's long-term objectives for cancer care. Patients track symptoms, manage medications and access NHS-approved advice via the app, which shares relevant data with clinicians who can monitor progress and intervene more rapidly to address deteriorations. The technology garners high patient engagement (85 to 100 per cent) and the quality of the anonymised data gathered by the app means the platform is uniquely positioned to inform healthcare and pharmaceutical research through a growing database of patient insights.

The Organisation for the Review of Care and Health Apps (ORCHA) ranked the app the best in the world for cancer patients. "It's user-friendly for all ages, and the more a patient uses it, the more tailored it becomes in helping them to manage symptoms, adhere to medication and maintain a healthy lifestyle, as well as engage more effectively with clinical care – interventions known to significantly improve patient outcomes," says Patel.

Around half of the current UK population will experience a cancer diagnosis, and around 58 per cent of cancer patients live with the condition, often on highly toxic medication, for longer than ten years. With many thousands of cancer patients, oncologists and specialist cancer nurses benefiting from Vinehealth today, the technology is playing a pivotal role in reshaping cancer healthcare and pharmaceutical innovations for the future.

www.vinehealth.ai

TAILOR-MADE TECHNOLOGY

THE CURVE'S BESPOKE AND ACCESSIBLE TECHNOLOGICAL SUPPORT TRANSFORMS COMPANIES THAT REQUIRE AN UPDATE ON THEIR EXISTING IT SYSTEMS

When Sheffield-based brothers Paul and James Ridgway formed The Curve in 2019 as a technical support consultancy, one of their first clients was an NHS trust. The Curve can deliver a range of technology solutions, from software development and cloud migration to training and mentoring. It can even act as a "Chief Technical Officer (CTO) on demand", a service designed for companies that require strategic help, but do not have the budget for a full-time appointment.

"The company can help to deliver a tech project from start to finish and partner with other tech companies that have stretched capacity and need some 'overflow' support," explains James. "It also offers managed services, and we can train and upskill teams around technology, as well as supporting professional development."

The Curve worked alongside the Rotherham NHS Foundation Trust to update a legacy software system, after the trust requested a new platform that could be easily upgraded and maintained by an internal team, to enable them to effectively manage their work on a day-to-day basis. The company collaborated with the trust to migrate to a platform that was compatible with its infrastructure, installing a web-based system that could be securely accessed from any workstation within the hospital. This allowed the team at the trust to increase their efficiency by 50 per cent.

"The new system has had a massive impact on our ability to respond to inbound requests," says Michelle Belk, of Rotherham NHS Foundation Trust. "The increased speed of data entry and processing means backlogs are virtually non-existent. We now have the ability to completely process all requests electronically and have eliminated paper-based steps, which added time to actioning each request. Our average processing time is cut in half using the new system and is down from ten days to five days."

The Curve has also developed a strong relationship with the University of Sheffield. At the core of the company's expertise is the engineering team, which has an intimate knowledge of code and considerable experience with all facets of technology. Whether it is building a platform on the cloud, producing a mobile app, or developing bespoke integration, The Curve has worked with all forms of technology deployed across several different sectors and industry.

www.thecurve.io

CHAPTER 13

MENTAL HEALTH SERVICES

HELP FOR THE YOUNG

WITH THE ESCALATION IN THE NUMBER OF CHILDREN AND YOUNG PEOPLE BEING REFERRED TO NHS MENTAL HEALTH SERVICES COMES THE NECESSITY TO RECRUIT NEW STAFF

The number of NHS staff working in children's mental health services has increased by around 4,500 since the start of the Covid-19 pandemic, as demand for support has risen. These new recruits include dozens of psychological practitioners who are helping young people aged 13 to 17 specifically with severe mental health problems such as depression, self-harm and more complex conditions, by offering them assessments, coping strategies and support in the community.

In the year up to April 2022, more than 677,000 children and young people were supported by NHS services – an increase of around 163,000 since the launch of the NHS Long Term Plan in January 2019. The rise comes as Claire Murdoch, NHS England's National Mental Health Director, has called on even more people to join the mental health workforce.

"There has never been a more important time to work in children's mental health," says Murdoch. "Demand for NHS services has skyrocketed over the last two years with the pandemic taking a significant toll on the nation's wellbeing. Thousands of new staff have already joined the ranks, as the NHS launches even more brand new roles to meet record demand across the country to provide specialist support for children and young people to help with the pressures they face.

"Becoming a mental health nurse was one of the best decisions of my life," she continues, "and I would encourage anyone who is thinking about a career that can have a positive impact on people's lives to join the NHS and be part of our efforts to support people suffering from poor mental health, as we look to make our patient services even stronger than they were before the pandemic hit."

Between March 2019 and March 2022, the NHS mental health workforce grew by more than 18,500 full-time staff, an increase that heartens Mark Radford, Chief Nurse and Deputy CEO at Health Education England. "It's great news and extremely important that the mental health workforce in England is growing," he says. "Collaborative effort with the NHS, charities and those who use our services has been vital to achieve this. Demand for services has risen and to provide safe, effective quality services we need the right support available at the right time and in the right place.

"This growth involved creating new roles that offer tailored support alongside building the skills, knowledge and abilities of our existing mental health workforce, with a focus on using those who use mental health services to create learning programmes for the people who work with them – so their needs inform everything that we do. It is essential that we continue to invest in education and training to grow the workforce further."

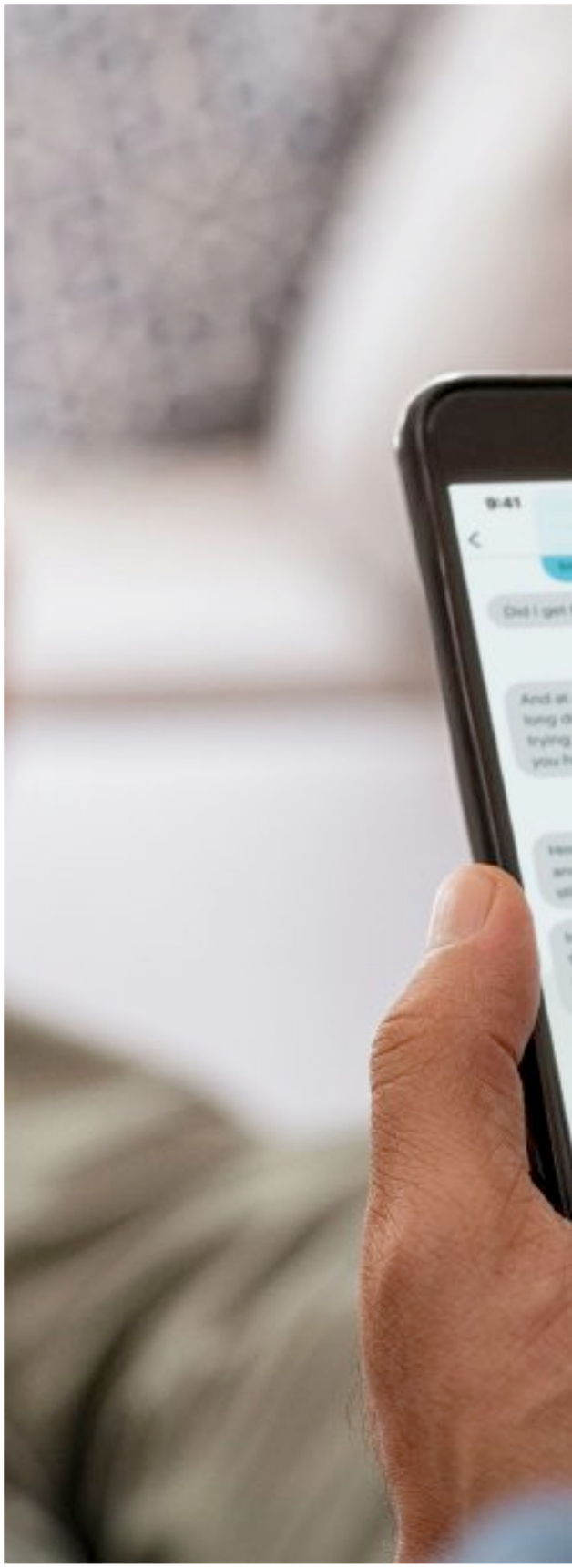
NHS data shows that 66,389 young people aged 19 and under were referred to child and adolescent mental health services in April 2022, a 109 per cent rise compared to the same month pre-pandemic. This highlights not only the sheer amount of pressure on the NHS, but also the importance of the service's focus on recruitment and retention of staff.

LEFT AND OPPOSITE
The NHS is on a recruitment drive to help it keep pace with the rise in demand for children's mental healthcare services

"Demand for services has risen and to provide safe, effective quality services we need the right support available at the right time and in the right place"

NEXT-GENERATION THERAPY

DEVELOPING GROUNDBREAKING ONLINE TYPED THERAPY, IESO IS ENABLING THOUSANDS OF PEOPLE WITH COMMON MENTAL-HEALTH ISSUES TO ACCESS FAST AND EFFECTIVE TREATMENT

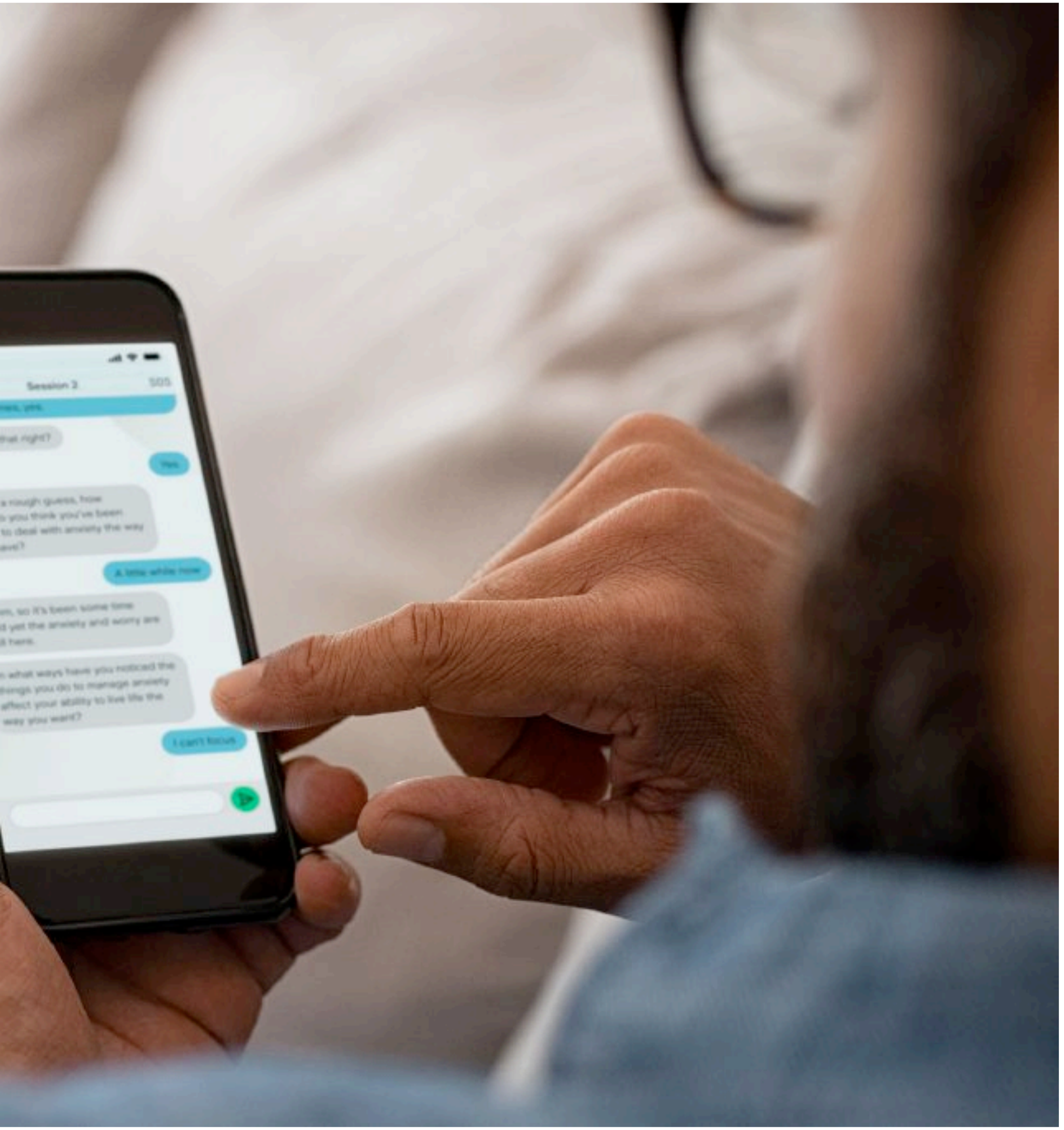


The treatment of mental-health issues such as anxiety, depression, trauma, OCD and common phobias has become increasingly important to the NHS in recent years. Two NHS psychologists recognised this challenge in the early 2000s, when they realised that more than 90 per cent of people with mental-health concerns were unable to access support. They created ieso – named after the Greek goddess of recuperation – a pioneering digital service that delivered accessible, flexible therapy over the internet, initially using text because video was beyond the means of contemporary technology. Having since expanded into a national programme, ieso has helped more than 110,000 NHS patients, with a focus on cognitive behavioural therapy (CBT). The company is now developing a new generation of therapy that uses AI, creating more capacity for the NHS.

This model is being explored around the world, with ieso planning to launch in the United States. “We would not exist without the NHS,” says Andy Blackwell, ieso’s Chief Science and Strategy Officer. “This is the only place in the world this company could have been formed because of all sorts of things such as data, information governance and the confluence of the NHS and academia. The UK is our home and provides us with a stable platform to bring treatment elsewhere. Other countries see the example of what has been made possible by the NHS and they want to find a way to do it themselves.”

The initial ieso offering – remote therapy via text chat – was rudimentary but revolutionary. The founders had two aims: the first was to improve access to care, and the second was to use data to measure and improve the quality of that care. “What really differentiates these early years is the discipline and clinical rigour,” says Blackwell. “That means that if you have a particular problem, you receive a particular programme of care. We can measure the outcome of every patient at every session in an objective way, which allows us to learn very quickly. Our outcome rates are continuously improving as a result.”

Academics were impressed and held a clinical trial, which showed that remote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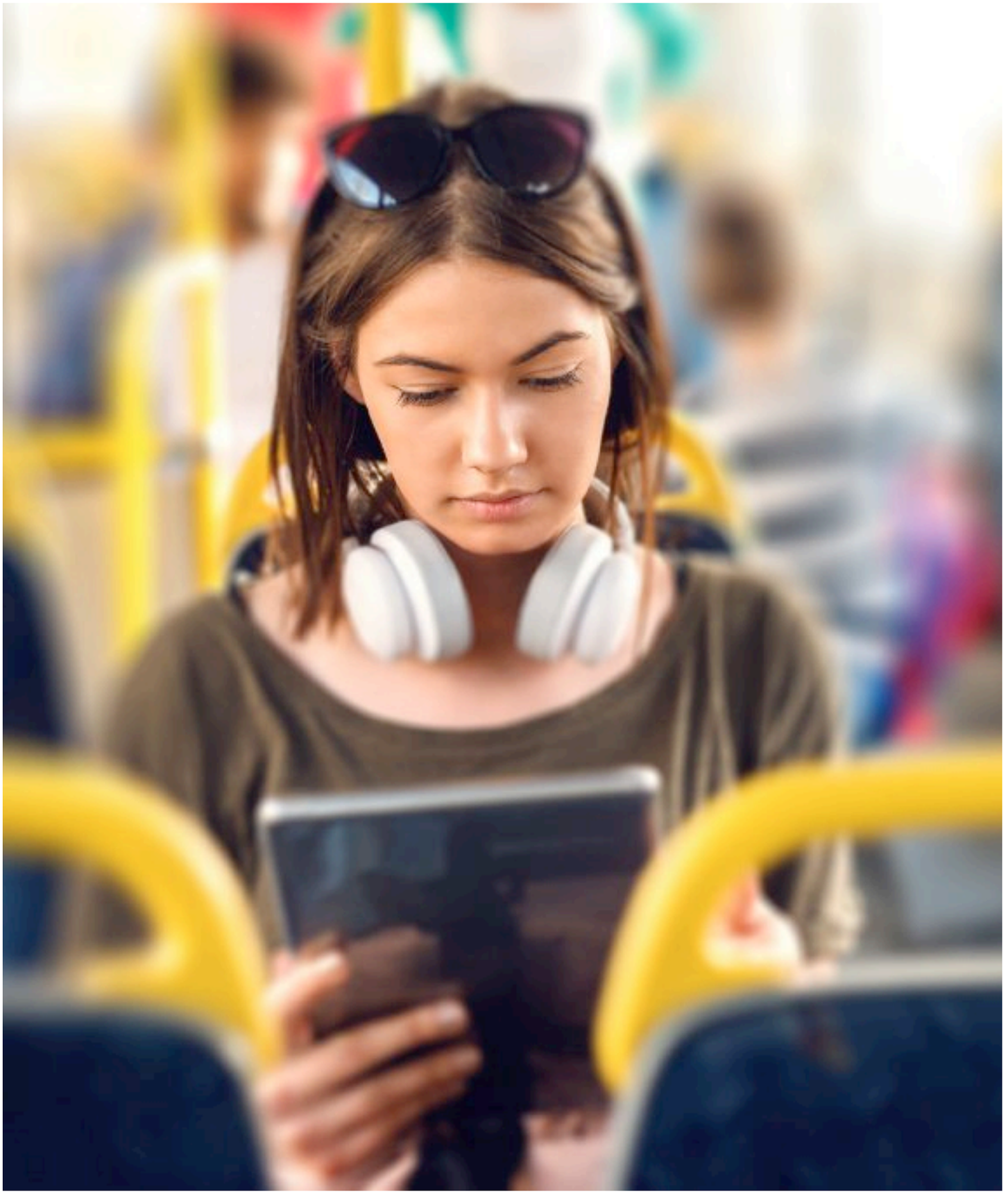
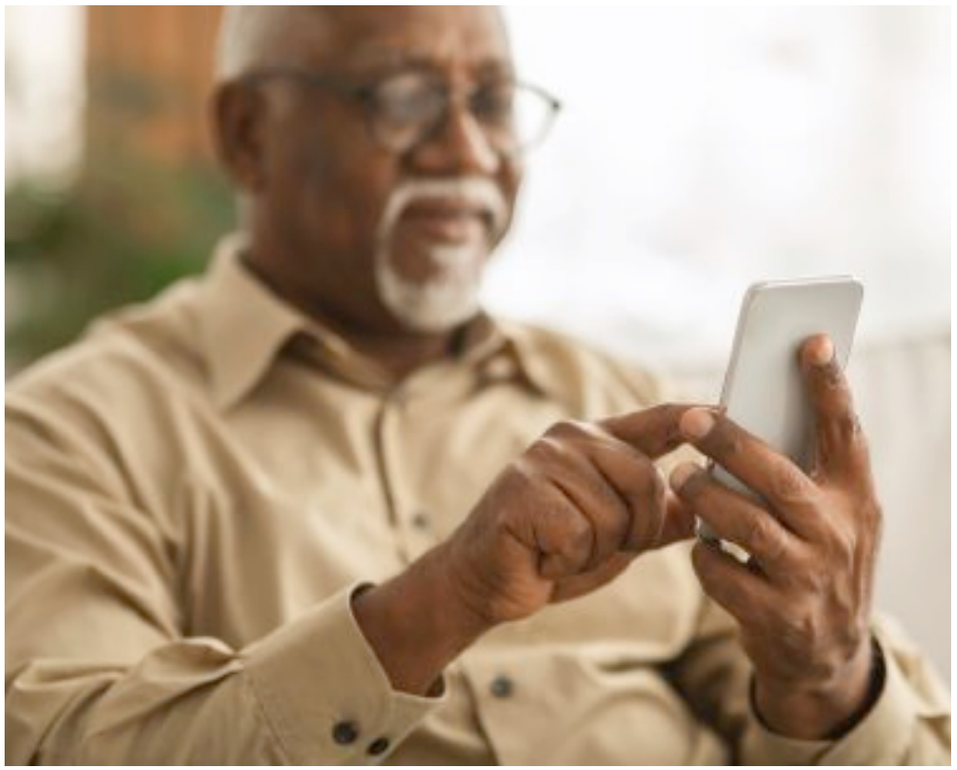


treatment was every bit as effective as face-to-face treatment. When the results were published in *The Lancet*, it was seen by investors who were excited by the potential of treatment that met a need, was clinically effective and scalable. The service is now available in around half of England's NHS trusts and throughout Scotland, either directly from ieso or via the NHS's Improving Accessing to Psychological Therapies programme. Treatment takes the form of video consultation as well as text. This provides a huge geographical reach – ieso's network of 600 accredited CBT therapists and Psychological Wellbeing Practitioners can treat patients in any part of the country – as well as flexibility, with appointments in the evenings and at weekends. The size of the programme also provides a huge amount of data that is used to constantly improve treatment and create a new generation of digital therapy.

"We have transcripts encompassing some 600,000 hours of therapy that our science team can dig into to see what actually helps to make people better," explains Clare Hurley, Chief Operating Officer, who spent 20 years working for the NHS as a clinician, CBT therapist and social worker before joining ieso. "That allows us to become better therapists and to deliver better mental-health care. It's not always clear why people get better, but we have the transcripts and the software to explore those patterns."

The company is now using that data to create software to deliver therapy that utilises machine-learning methods and sophisticated computation linguistics. This has involved finding a way to measure human language and the deeper meaning of words, as well as measuring outcomes – research that could transform the way mental health is treated by the NHS and around the world.

"Our software can understand the intention of what patients are saying – what it means in clinical terms – and respond in an appropriate way," explains Blackwell. "It's the same as the intuition a clinician might have, but one built through a vast network, having observed the treatment of thousands of people over many years. We are distilling all that knowledge into an experience. The fundamentals are the same. Patients come to us seeking help and get a very structured programme to address their needs with a series of interventions driven by the computer. It's about finding a way to emulate the very best clinical care borne out of data and deep expertise."



"Our software can understand the intention of what patients are saying and respond in an appropriate way"

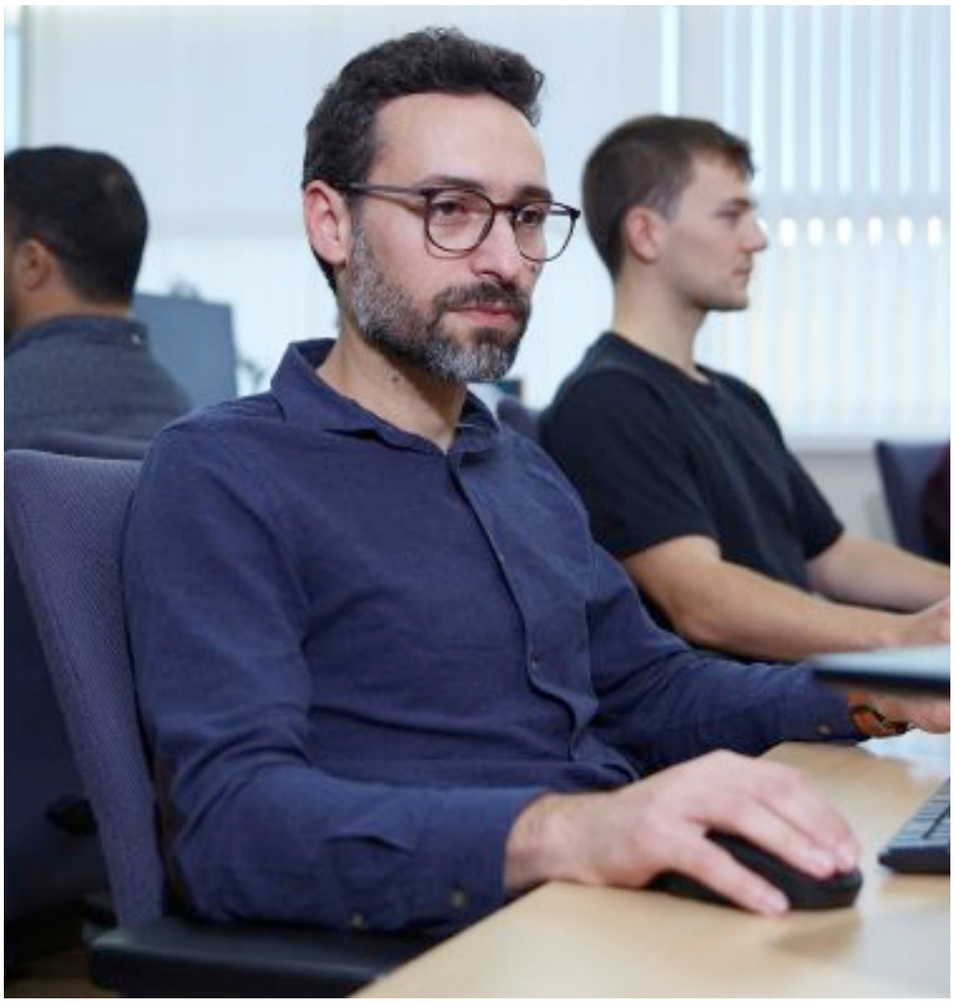
Human-led remote therapy is still available to patients, with therapists constantly monitoring the progress of every patient to ensure the system is working and deliver that all-important touch of human empathy. This service enables ieso to reach thousands more people who need support for their mental health. "One of the most important things is that we are easy to access, so a therapist will contact a new patient within 24 hours and treatment can start in just over 20 days," says Hurley. "It is about creating this parity of esteem, so people talk about mental health as openly as they do physical health. We need to level that playing field and make sure people are comfortable seeking support."

The use of digital therapy is allowing the NHS to reach even more patients, reducing waiting times and improving mental-health outcomes for thousands of people. "There are so many things to be proud of with the NHS over the past 75 years, and the advances in mental-health care are right at the top of that list," says Blackwell. "We have laid foundational steps for a very bright future. The UK is an amazing environment for bringing together technology, life science, clinical expertise and a conjoined data infrastructure. This is an area that we can really celebrate. Because of the work that started at the beginning of this century, we have a clear pathway to success."

www.iesohealth.com

TRANSFORMING MENTAL-HEALTH ASSESSMENT

CENSEO IS A DIGITAL MENTAL-HEALTH ASSESSMENT PLATFORM DEVELOPED BY PSYOMICS THAT USES INTELLIGENT ALGORITHMS TO ENSURE EVERY PATIENT RECEIVES THE RIGHT CARE PLAN



In the UK, 1.8 million people are on NHS waiting lists for mental-health treatment – a condition that costs the country an estimated £118 billion. With only one psychiatrist for some 12,500 patients and around 14 per cent of NHS mental-health jobs vacant, Censeo enters this challenging field as both a practical and economic solution, expanding capacity for care and accelerating assessment.

Censeo is a digital platform created by Psyomics, which builds a comprehensive understanding of an individual's mental-health concerns, symptoms and history to support decision-making and care plans. The platform simplifies patients' pathways through the NHS by delivering accurate and intuitive assessments, ensuring patients receive the right treatment while at the same time relieving the workload of clinicians.

"The product saves operational and clinical time, which is a massive problem in mental health," explains Dr Melinda Rees, Psyomics Interim CEO. Having left clinical practice as a psychologist in 2014, she has since developed expertise in leading mental-health digital startups.

"We can't solve waiting times just by training more clinicians. We need digital interventions that save operational time so clinicians can devote their time to treatment, where they can be more effective. There's a lot of variation in clinical decision-making, leading to patients often being put on the wrong pathway. We can ensure patients get on the right pathway the first time."

Indeed, patients who have used Censeo report feeling heard. They also appreciate the opportunity to share their stories without the discomfort of discussing their mental health face to face with a clinician.

Psyomics emerged from Cambridge University's innovation hub in 2015, initially with a different product: a protein marker that was designed to differentiate between major depressive disorder and bipolar disorder. A prototype digital assessment tool was developed alongside this marker, and after clinical trials, the focus shifted entirely to the digital tool, now known as Censeo.

Censeo is most effective at the beginning of a patient's journey. It asks questions about the user's mental health and encourages patients to provide detailed accounts of their experiences. The adaptive platform offers

over half a million different pathways and delivers an assessment that analyses the level of risk in three domains: anxiety, depression and trauma.

Clinicians can use Censeo's results to ensure patients receive the most suitable treatment for their needs. The tool has already been implemented in Hertfordshire, the South West and the Midlands.

With adequate funding, Psyomics aims to refine Censeo using machine learning, as well as gather data on lifetime cost benefits and develop a similar assessment tool for children's mental health. The long-term objective is to create a more flexible and holistic tool that can measure patient outcomes.

"Our main market is the NHS, and we are exploring many potential uses, from therapeutic fostering of children [which helps them deal with previous trauma or abuse] to workplace and occupational health," says Dr Rees. "We are also looking at the international market. Our approach, grounded in population health principles, focuses on delivering value to providers and clinical outcomes for their population, ensuring a return on investment."

www.psyomics.com

SILVER LINING

AT THE FOREFRONT OF DEVELOPMENTS IN BEHAVIOURAL HEALTH TECHNOLOGY, SILVERCLOUD GIVES PATIENTS THE TOOLS TO ACCESS, AND ENGAGE WITH, MENTAL-HEALTH THERAPY

Few areas of the NHS are facing as much demand as mental-health services, with digitisation forming an increasingly important aspect of treatment. SilverCloud by Amwell has been part of this process for a decade, working alongside the NHS to offer access to guided self-help, in co-ordination with a therapist, to patients with mild to moderate anxiety and depression. Built on 18 years of academic research with global partners, the programme has helped more than one million people to date, while reducing pressure on healthcare systems.

"SilverCloud came about because of a drive within the NHS to increase access to certain approved mental-health treatments," explains Sam Lane, SilverCloud's Senior Product Manager. "One recommendation of anxiety and depression guidance is that patients should be supported to access guided self-help based on cognitive behavioural therapy (CBT). Traditionally, this would have been done through a book, but SilverCloud is a digital platform that allows patients to work through the contents of its programme of evidence-based therapies."

The programme was developed from research conducted at Trinity College Dublin and then introduced to the NHS via Berkshire Healthcare NHS Foundation Trust, which helped refine the content. It is now available to some 80 per cent of the UK population through their regional NHS Talking Therapies (formerly Improving Access to Psychological Therapies) service. SilverCloud is usually delivered as one treatment option, alongside others such as group sessions. Using the material from the platform, therapists can monitor the exact progress patients have made between sessions or appointments. This combination of human and digital therapy has been designed to help clients engage more actively with content.

Lane, who previously worked as a therapist, notes some of the benefits that SilverCloud provides. "Before, you would phone up a patient and hope they were there, were able to talk and had done the work that had been discussed in the previous session," he says. "SilverCloud can show all the work that has been done, and the therapist can send a supportive message to the patient. That means there are no problems with non-attendance, and it makes it much easier to support the patient.

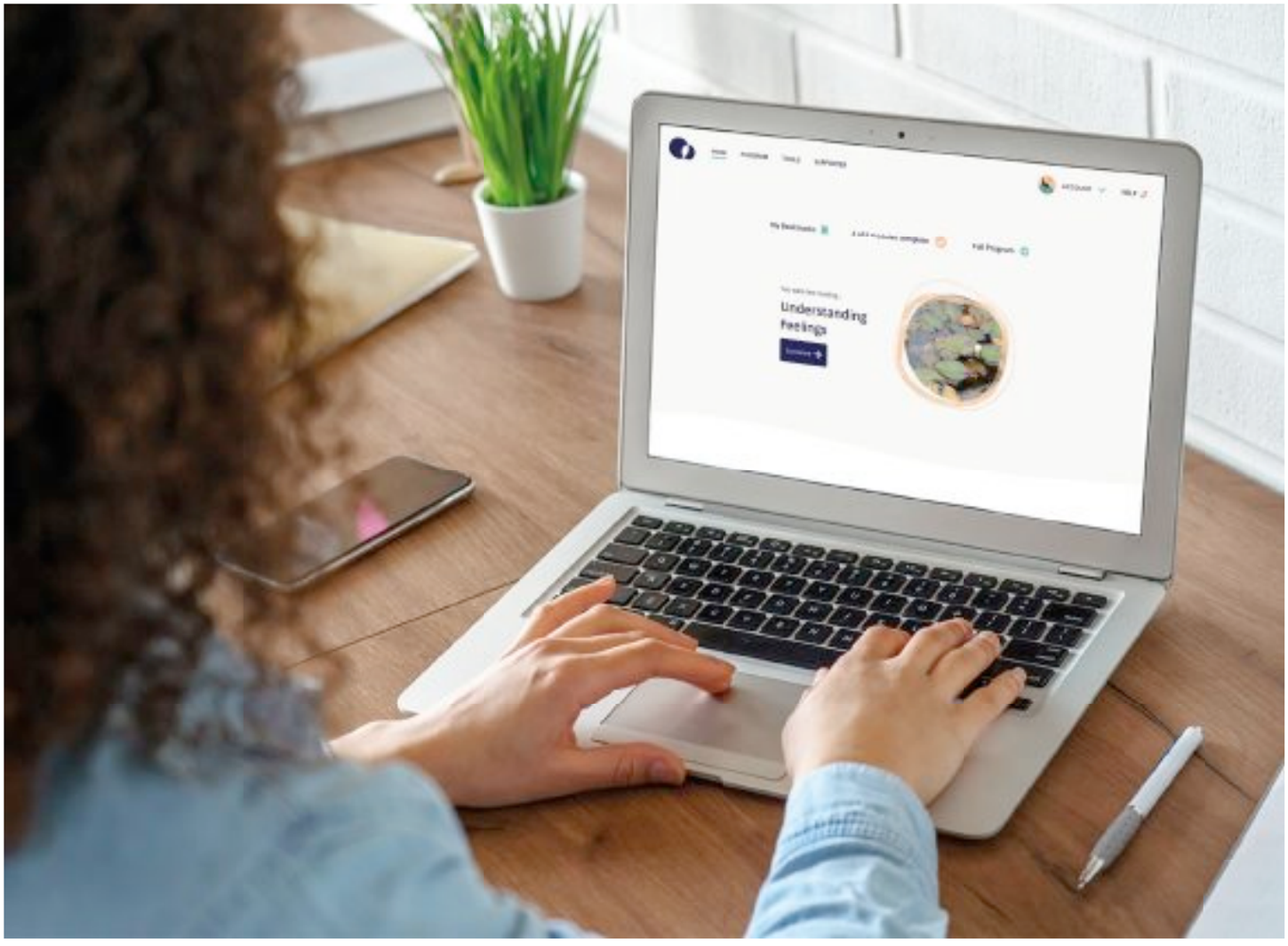
"Where therapy is delivered with a therapist there is certainly a role for a programme to structure that content, but the role becomes different: at the lower levels, the programme is created to support the patient, but as we get into more severe conditions it is designed to support the therapist."

Following the successful introduction of SilverCloud as part of adult services, it is now being used to support young people, so they do not need to access more intensive forms of intervention. There are also programmes for resilience, wellbeing, stress and ADHD, as well as for parents who are looking after children with anxiety and depression.

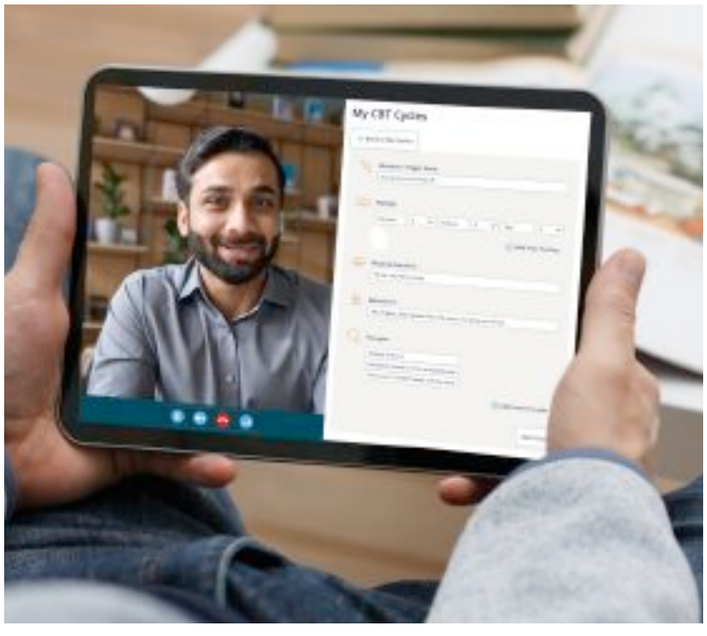
"There's a danger of thinking every form of treatment can be digitised, but we know that isn't the case," says Lane. "So we are looking for similar gaps where we can replicate our service, such as more severe presentations of depression, social anxiety and OCD. We are also developing programmes that cover more complex conditions, such as trauma and eating disorders.

SilverCloud has even more plans for the future. "Covid saw mental-health services move online and people are still delivering them this way, which often means they are using methods that aren't properly developed. We see that as our next area of focus."

www.silvercloudhealth.com


Understanding
Feelings


Boosting
Behaviour


My CBT Cycles

TREATMENT IN THE ROUND

WITH ADHD 360'S SPECIALIST SUPPORT, PRIVATE AND NHS PATIENTS RECEIVE SWIFT DIAGNOSES AND TRANSFORMATIONAL TREATMENT BASED ON THE LATEST CLINICAL DEVELOPMENTS

"People with attention deficit hyperactivity disorder (ADHD) often struggle to regulate their behaviour and organisation, making it hard to maintain an education, job, relationship or healthy lifestyle," says Phil Anderton, co-founder of the ADHD 360 clinic. "This can lead to ill health, poor social outcomes and crime."

Anderton, a former police officer, became involved with the condition 20 years ago while researching crime links. "ADHD often runs in families, which can compound the issues. I realised if we could improve the diagnosis, treatment and support of people with ADHD, they could live their best lives."

The idea was to help combat crime and reduce pressure on the NHS, from illnesses related to lifestyle choices and coping strategies such as poor diet, alcohol and smoking, and mental-health conditions including anxiety and depression. After years of research, in 2018, Anderton founded ADHD 360 with two clinical ADHD experts, Jen Lewis-Neill and Lisa Mangle. They were soon joined by Samantha Anderton-Marshall as a fellow Director. "By June 2023, we had 124 employees and were assessing 1,200 new patients per month," says Anderton.

The Lincolnshire-based clinic uses remote technology to swiftly diagnose, treat and support private and NHS patients nationwide. In the Small Medium Enterprise Awards 2023, it was awarded the Most Dedicated ADHD Diagnosis and Treatment Clinic. "Our patients report a significant improvement in 12 weeks through medication, which is further enhanced when we add therapy and support. Our drop-out rate is just 3 per cent, compared with up to 70 per cent for patients elsewhere."

ADHD 360 maintains its patient outcomes by responding to the latest international clinical developments in ADHD and leading the field – an example being their approach in the treatment of women with ADHD during their menstrual cycle. The clinic uses innovative techniques and treatments such as intensive, bespoke programmes and effective medication, at prices that are accessible to all, including those on Universal Credit; the company is also extremely cost-effective for the NHS.

"Alongside our private patients, we work with several NHS trusts and patients through their legal right to choose," says Anderton. "We hope to increase our impact further, in partnership with NHS England, to help more people with ADHD live their best lives."

www.adhd-360.com

ACCESS ALL AREAS

BERKELEY PSYCHIATRISTS, FOUNDED BY A SPECIALIST WITH A LONG CAREER IN THE NHS, DELIVERS CARE TAILORED TO THE INDIVIDUAL

The NHS inspires us all, especially those who work in it. An NHS career spanning three decades inspired Consultant Psychiatrist Dr Hugo de Waal to create Berkeley Psychiatrists, a private practice specialising in – among all other psychiatric disorders – neurodevelopmental conditions, such as ADHD (attention deficit hyperactivity disorder) and ASD (autism spectrum disorder).

"I wanted to create a practice delivering patients exceptional care and personalised experiences," says de Waal. "Our assessments and treatments are carried out by highly trained and experienced consultants with proven track records in neurodevelopmental conditions." Indeed, the practice is fully registered with, and regulated by, the Care Quality Commission; it adheres to National Institute for Health and Care Excellence guidelines; and its consultants are members or fellows of the Royal College of Psychiatrists.

Central to Berkeley Psychiatrists' ethos is an NHS-inspired determination that patients can easily access information about their care in between scheduled appointments, without always needing to book expensive supplementary contacts with the practice – patients can simply send an email to their clinician. "The patient needs to feel safe, clinically. You can do that if they know they will get an answer when they contact the clinic."

Berkeley Psychiatrists differs from many private psychiatry practices because consultants work as a team, pooling knowledge and experience, as they would in the NHS. "Under our clinical team approach, the patient's primary contact is their consultant, but the consultant – and therefore the patient – have access to all the clinical expertise in the practice," says de Waal.

Alongside prioritising accessibility and responsiveness is a determination to ensure patients are at the centre of their own treatment plans. The consultant provides options, but the way forward is always decided jointly with the patient. Responsiveness and accessibility on the infrastructure side are mirrored on the clinical side: "You need to let patients in, so you can devise treatment plans that make sense to them. If they don't, treatment plans lose their relevance and efficacy."

Ultimately, it is how patients feel about their treatment that matters. Berkeley Psychiatrists believes in transparency: patient reviews are glowing. "It's hugely motivational to go to bed knowing we have made a difference to their lives. This is why we do what we do."

www.berkeleypsychiatrists.co.uk

A LIFE-CHANGING ASSESSMENT

EVOLVE PSYCHOLOGY SERVICES PARTNERS WITH THE NHS, APPLYING ITS EXPERTISE TO ASSESS NEURODEVELOPMENTAL CONDITIONS

As awareness of ADHD and autism increases, so do the waiting lists for assessments. Evolve Psychology Services works alongside the NHS to reduce waiting times, assessing patients within six to 12 months and empowering them for life.

"As an independent practice, we can offer flexibility to support the NHS with our diversity of expertise, adoption of new and evidence-based practices and the adaption of our services. We also have the flexibility to recruit to meet the demand for services," says CEO and Consultant Clinical Psychologist Dr Laura Powling. "We can assess clients for autism and ADHD, which often overlap, so families don't have to wait on two separate NHS lists."

Dr Powling founded Evolve in 2014 to provide high-quality, evidence-based clinical and forensic psychological assessments to clients, courts, parole boards and immigration tribunals. Today, the team of over 50 also supports adults, children, adolescents and their families with assessments and psychological therapy for autism, attention deficit hyperactivity disorder (ADHD), learning disabilities, anxiety, depression, behavioural difficulties and the impact of trauma. They also offer training and consultation to professionals and services.

Young people come to Evolve through their GP, private self-referral or through the NHS's Child and Adolescent Mental Health Services. The Harrogate- and Huddersfield-based practice has a contract with the NHS West Yorkshire Integrated Care Board to provide assessments for children and adolescents in Kirklees and Calderdale, while services are available to NHS patients nationwide under the NHS Right to Choose provision. Services are provided in person at its child-friendly, play-centred practices.

Evolve is also looking to offer assessments more widely to adults and increase its clinician capacity. "That way, we can see more clients, locally and nationally, to relieve pressure on the NHS," says Dr Powling. In addition, it is exploring the expansion of its post-diagnostic services, as well as digitisation of some aspects of its training, information sharing and workshops.

"An assessment can be life-changing. Regardless of whether a diagnosis is given, we empower clients by providing signposting, recommendations and resources relevant to them, their family, carers and education providers, so they can better understand themselves and how to access the support and interventions they need," says Dr Powling. "The quicker we can assess people, the sooner they can progress, positively and confidently."

www.evolvepsychology.org

CARING FOR THE MIND

FAMILY-RUN MENTAL-HEALTH CLINIC KOVE USES THE MOST UP-TO-DATE THERAPY TECHNIQUES FOR TREATMENT OR ASSESSMENT OF A WHOLE RANGE OF COMPLEX CONDITIONS

Dr Jenna Vyas-Lee and Jordan Vyas-Lee are the husband-and-wife duo at the heart of Kove mental-health practice in London. In 2021, with Jenna's brother Nilen Vyas as Chief Operating Officer, they took what proved to be a worthwhile leap of faith in establishing their own clinic specialising in modern, evidence-led mental-health care.

Their profound interest in psychology and psychiatry is rooted in their own personal and familial experiences. "We understand first-hand the far-reaching impact of emotional ill-health and have witnessed the life-changing and transformative power of effective treatment – corroborated more recently through patient outcomes and their feedback," says Jenna.

Both extensively trained in their field, Jenna and Jordan's journeys converged at King's College, London. They honed clinical expertise in the NHS for many years before seeing clients privately. "Our careers in the NHS were diverse, educative and rewarding," says Jordan. "They provided an insight into how we could go beyond the NHS's offering to help people further, by providing a more holistic service that is flexible and readily adapted with the latest incoming research. What started as an adjunct to our careers in the NHS quickly evolved into Kove."

Today, they provide online and in-person support to both children and adults, specialising in assessment and treatment for ADHD and autism, and covering a range of mental-health issues, including trauma, PTSD, OCD, anxiety and depression.

At Kove, the approach looks at every aspect of a client's mental health and embraces a blend of latest techniques and holistic care. So many conditions overlap, and each person's own life journey, plus the system they live in, uniquely shape the individual's difficulties. By intertwining clinical excellence with compassionate guidance, Kove ensures every patient's unique needs are prioritised. Kove's network of specialist associate practitioners also shares the aim of delivering positive, effective treatment.

A free initial session is offered to clients. If the clinic is unable to continue with private treatment, Kove signposts to excellent help in the NHS or charity sector. Kove is currently setting the groundwork to support publicly funded patients through NHS contracts and the government's Right to Choose initiative. As Jenna says, "We don't want cost to be a barrier to accessing help."

www.koveminds.com

CHAPTER 14

EDUCATION AND TRAINING

LONG-TERM THINKING

A NEW WORKFORCE PLAN OFFERS THE NHS AN EDUCATION AND STAFFING STRATEGY EVERY BIT AS AMBITIOUS AS ANY IN ITS 75-YEAR HISTORY

Any organisation experiencing an ever-increasing demand for its services while also facing a relative slump in the supply of skilled staff able to help meet that need requires a plan, and the National Health Service is no exception. The service has not had a comprehensive workforce strategy since the early 2000s, and efforts to produce one over the past two decades have stalled. Until June of this year, that is.

The importance of the NHS Long Term Workforce Plan, published on 30 June 2023, cannot be overstated. Setting out the case for long-term change for the service's workforce, it outlines action points for addressing an anticipated staffing shortage that runs into the hundreds of thousands.

In considering how much the health service has expanded over the course of its 75-year history, NHS Chief Executive Amanda Pritchard acknowledges that, to an extent, it is the victim of its own success. "The NHS in England now has many times the number of staff, including doctors, nurses, therapists and scientists, and is therefore capable of delivering a far greater volume and breadth of care," she says. "But, at the same time, local services report vacancies totalling over 112,000. This is a reflection of how the needs of our population have grown and changed, thanks in large part to the role better care and advances in medicine have played in increasing life-expectancy by 13 years since 1948."

That figure is expected to rise to a staffing shortage of anywhere between 260,000 and 360,000 by 2036/37. "The number of people aged over 85 is estimated to grow 55 per cent," says Pritchard. "The lack of a sufficient workforce, in number and mix of skills, is already impacting patient experience, service capacity and productivity, and constrains our ability to transform the way we look after our patients. A growing shortfall would mean growing challenges and lost opportunities."

The NHS Long Term Workforce Plan presents a three-pronged approach to meeting this challenge over the next 15 years. Under the core headings of "train", "retain" and "reform", the strategy aims to add 60,000 doctors, 170,000 nurses and 71,000 allied health professionals to the current levels of staffing.

ABOVE
NHS England CEO Amanda Pritchard speaks at the launch of the Long Term Workforce Plan

The first of these proposals addresses the need to significantly increase education and training, as well as boost apprenticeships and alternative routes into professional roles. This would help deliver more doctors, dentists, nurses and midwives, as well as other professional groups, including new roles designed to better meet the changing needs of patients and support the ongoing transformation of care.

"Retain" sets out the need to keep more existing staff within the health service "by better supporting people

throughout their careers, boosting the flexibilities we offer our staff to work in ways that suit them and work for patients, and continuing to improve the culture and leadership across NHS organisations".

Perhaps the most ambitious of the plan's three principal goals is that of reform. The challenge of "improving productivity by working and training in different ways, building broader teams with flexible skills, changing education and training to deliver more staff in roles and services where they are needed most, and ensuring staff have the right skills to take advantage of new technology" is a daunting one. But it is also the one that could deliver the most palpable change to a service eager to embrace innovation.

As Pritchard concedes, developing a workforce plan that stands the test of time is a hard thing to do in any sector, and particularly so in the NHS. "The evidence from our history tells us that the pace of technological and scientific progress means we cannot predict with certainty how the workforce needs of the NHS will look in 15 years' time," she says. "But we can set a direction of travel and commit to this being the start of an ongoing process to refresh the plan and ensure it is aligned with wider service planning.

"We are now much better equipped to undertake this task, and therefore to ensure the health service is geared up to meet the evolving challenges – and take the emerging opportunities – that the next 15 years hold."

ABOVE
The workforce plan presents a 15-year strategy to boost training and employment in the NHS

CENTRE OF EXCELLENCE

CERTIFICATION BY THE EUROPEAN COLLEGE OF AESTHETIC MEDICINE AND SURGERY MEANS PATIENTS UNDERGOING COSMETIC PROCEDURES ARE IN SAFE HANDS

When Pyn Lim founded the European College of Aesthetic Medicine and Surgery (ECAMS) in Dublin in 2008, her motivation was to improve the "ugly" side of beauty. Characterised by loosely defined regulations, she explains, the aesthetic industry had created a boom in clinics but a reduction in standards, with consumers not always guaranteed to receive the best treatment. So Pyn's main objective was to transform the regulatory landscape by leading improvement, providing excellent training and enhancing standards among aesthetic physicians. "I saw there was a need to raise the standards of the industry and realised the only way was to create a proper training school," she says.

Pyn experienced in person the gap between training and practice after several negative encounters with medical experts as both patient and clinic owner. Finding skilled, experienced ethical personnel and physicians was a problem when she opened her own clinic. "Coming to Ireland to set up a clinic," says Pyn, "I was looking for a qualified school to train our junior medical doctors and realised there was no regulation – any doctor, without experience in aesthetics, can claim to be an aesthetic doctor. In some countries, a nurse or beautician can do aesthetic medicine work. I was shocked to discover people were not professionally trained before offering this area of speciality."

ECAMS provides training in all aspects of aesthetic medicine (non-surgical procedure) and surgery under the supervision of some of the most gifted and experienced surgeons in the world. Pyn started collaborating with renowned faculties to offer exceptional continuation medical education to doctors and surgeons in aesthetics, including areas such as non-surgical aesthetic procedures, body contouring surgery, face surgery, genital surgery, breast surgery, regenerative medicine, hair restoration and aesthetic business. From accredited courses to professional mentorship, the centre has become a world leader in training medical professionals in all areas of aesthetics.

With the experts at ECAMS taking the view that medical doctors and surgeons should be properly trained before providing aesthetic treatment, it was also agreed that this training must be continuous as the industry moves so fast. As a result, each course is carefully crafted and tailored to different levels, covering everything from the fundamentals to cutting-edge methods. Furthermore, it was recognised that aesthetics requires a deep appreciation of art, so the development of an artistic eye and an awareness of detail is another essential element, as is the teaching of a variety of techniques carried out in a safe way. "Surgeons and doctors should be adept at numerous techniques, so they can offer choices right from the consultation," says Pyn. "Above all, safety is of the utmost importance. We can't emphasise it enough in all our courses. We want the delegates to be able to leave with a feeling of confidence that they can take what they have learned and apply it safely in their own practice."

Aesthetics is a multidisciplinary field and is no longer just about plastic surgery. The dynamic nature of aesthetic medicine and aesthetic surgery is driven by new technologies and advances in procedures, pioneered by a broad range of specialists: dermatologists, oral and maxillofacial surgeons, ophthalmologists,

otolaryngologists, plastic surgeons, general surgeons and gynaecologists, and doctors from other fields. ECAMS encourages all specialists to share and learn from each other for the benefit of the patient, rather than raise walls to intensify competition, which compromises ethics and training standards. “I hope doctors will be more driven by ethics as the financial outcome will follow, and be more collaborative with their colleagues from different specialties,” says Pyn. “Our mission is to serve as a platform for medical professionals to share knowledge and best practices, so that we can help doctors become better at what they do, for patient safety. At the same time, ECAMS equips them with the business side of things, as they build towards a successful, respectable and professional practice.” It is also about doctors listening to their patients, being empathetic and understanding they are a service provider, rather than having “I am a doctor saving your life” attitude.

Pyn sees cosmetic surgery as a branch of wellness that can ease the burden on the NHS and other public healthcare systems. She aspires for society to accept those who embrace cosmetic options and acknowledge the positives of physical and mental health. “If you look better, you feel better, you act better, you live better and that can result in improved social interaction, in a healthy way,” says Pyn. “I want to get rid of the stigma associated with it, so people can receive cosmetic surgery without feeling guilty.”

This approach marks aesthetic medicine and aesthetic surgery as elements of self-improvement that are no different to going to the gym or getting a haircut. The objective is not to gratify vanity but to help people look and feel better. So it is essential that people can access experienced doctors who understand their motivation, needs and desires and prescribe the best treatment.

This led to Pyn creating a virtual hub, www.aesthrix.com, which allows users to receive trusted, objective information about aesthetic procedures, free of charge. She describes it as the “Michelin rankings of clinics”, offering star ratings to clinics so that patients can trust a star-rated clinic. “The problem now is that clinics all claim to have the best awards, but these can be bought and don’t really prove anything,” says Pyn. “I set up the business with the idea of patients in mind. Clinics that apply need to go through several rounds of interview and assessment, including surprise interviews of their patients, suppliers and staff. Going through this process also allows clinics to have in place what is needed to help improve their practice.”

Pyn believes that if you are going to talk the talk, you’ve got to walk the walk, so the next big project is to collaborate with industry experts to build high standards in clinics in aesthetics and wellness around the world. In ways such as this, Pyn is slowly but surely raising the standards of the aesthetics industry.

www.ecamedicine.com

“Our mission is to serve as a platform for medical professionals to share knowledge and best practices”

SKILLING UP

BPP UNIVERSITY'S SCHOOL OF NURSING IS COMMITTED TO DELIVERING HEALTHCARE PROFESSIONALS WITH THE RIGHT SKILLS TO MEET TODAY'S RECRUITMENT CHALLENGES

"Preparing learners for the professional world of nursing is at the core of everything we do at BPP," says Professor Lynne Gell, founder and Dean of the School of Nursing at BPP University. The university takes its name from the founders Alan Brierley, Richard Price and Charles Prior, who in 1976 set up Brierley Price Prior. Since then, the university has continually expanded its profile, particularly in the past three decades.

"BPP has come a long way," explains Gell. "It was at one time perceived to be predominantly about legal studies and business management, whereas it's no longer seen that way. The School of Nursing was formed in 2018 and is now very much on the road map – I want that to be celebrated as this is an extremely exciting time for us. Nursing is a huge focus for BPP, and it is imperative that we continue to combine the academic excellence of a university with a real-life focus for our students."

Gell's ultimate aim is to produce talented healthcare professionals who can meet the needs and emotional demands of their key patient groups. "Our team works incredibly hard, our students work incredibly hard, and I felt it was right to commemorate the NHS at 75 in this way," she says.

Based in the Waterloo Centre in London, with further key sites in Doncaster and Southampton, the School of Nursing collaborates with partners in the NHS and private healthcare sectors, believing that the best way to become a nurse is to experience the role first-hand and on the frontline. The school offers undergraduate and postgraduate nursing degrees, as well as Nursing Associate apprenticeships that are designed for all ages and backgrounds and allow specialism in a wide range of healthcare settings, including mental health, adult and paediatric nursing. BPP University teaches 20,000 students a year and ranks fourth in the Graduate Outcomes Survey, which polls students on various aspects of their experience at university.

In the current climate, Gell is clear that the health sector faces enormous recruitment challenges, which require flexibility and innovation if they are to be met head-on. "Providers are under no illusions about the scale of the task ahead and many are thinking imaginatively and flexibly about how they can fill their talent pipeline," she says. "I'm glad to say that BPP, with its expertise in such areas as virtual learning and apprenticeships, is in an excellent position to help them."

What is most impressive is the School of Nursing's employability outcomes. Fifteen months after graduating, 98 per cent of BPP postgraduate students were in highly skilled work in the UK. The School of Nursing has high retention completion and employability rates – "in fact, so far we have had 100 per cent employability," says Gell.

A nurse by profession, Gell completed her training in 1975 and then worked in the higher education sector. Health education is her passion, and she is keen to strengthen the field, helping to deliver well-qualified graduates to this most important sector. "We will continue to grow the School of Nursing's international portfolio, especially with our master's leadership programmes that attract a diverse range of clinicians and professionals. Our apprenticeship portfolio is just naturally growing, and our reputation with Health Education England in the undergraduate space is really important to us. We seem to be going from strength to strength."

www.bpp.com


BPP
BUILDING CAREERS
THROUGH EDUCATION.

INSTITUTE OF HEALTH AND SOCIAL CARE

BUCKINGHAMSHIRE NEW UNIVERSITY'S INTEGRATED APPROACH TO HEALTH AND SOCIAL CARE GIVES THE NEXT GENERATION OF HEALTH AND SOCIAL CARE WORKERS THE SKILLS THEY NEED

Originating as a college that taught furniture design 130 years ago, Buckinghamshire New University (BNU) attained university status in 2007 and now provides a variety of industry-focused courses, from nursing to aviation.

The university has around 12,000 core students, with 2,800 taking health and social care-related courses. With endemic staffing issues in the NHS and the health and social care sectors, BNU supplies a substantial number of graduates – notably in northwest London and the South East – and now offers courses to meet growing demand in midwifery, physiotherapy, paramedicine, diagnostic radiotherapy and occupational therapy. At the main nursing campus in Uxbridge, BNU offers nursing apprenticeships – among the first six institutions to do so – enabling students to earn as they learn. "Our USP is that we are small, we know our students and there is a family feel," says Professor Karen Buckwell-Nutt, BNU Associate Pro-Vice Chancellor.

BNU's teaching quality in health and social care subjects is supported by research, with almost half in allied health professions, dentistry, nursing and pharmacy judged of world-leading or globally excellent quality in the Research Excellence Framework 2021. *The Sunday Times Good University Guide 2023* named BNU one of the top ten UK universities for teaching in all subjects, and it came first for subjects allied to medicine.

Headed by Buckwell-Nutt, the university's Institute of Health and Social Care (IHSC) was set up in 2020. It provides strategic oversight for BNU's health and social care provision, concentrated in the School of Nursing and Midwifery, the School of Health and Social Care Professions, and the School of Human and Social Sciences. "The leadership team has great experience in nursing, social work and allied health, understands the sector and offers courses that people want, producing what the country needs," explains Buckwell-Nutt. The Institute enables BNU to "horizon scan" and work with hospitals and institutions to plan for new challenges. These include the new T-Levels, which will require students to attend placements in healthcare settings.

The professor is proud of the role that the Institute plays in the integration of health and social care services – locally, it is a strategic partner in the multi-agency Buckinghamshire Health and Social Care Academy. "There's massive change politically and on the health and social care landscape," she says. "At BNU, we are ahead of the curve."

www.bnu.ac.uk

UNLEASHING NURSING'S POTENTIAL

THE COLUMBIA SCHOOL OF NURSING HAS BEEN ADVANCING THE US'S MOST TRUSTED PROFESSION FOR MORE THAN 130 YEARS

The Columbia School of Nursing was put on the map by the "American Florence Nightingale", pioneering nurse Anna Maxwell, dean of the institution when it opened in 1892 as one of the nation's first nursing schools. Since then, the school has been at the forefront of progress in the profession, joining Columbia University in 1937. It was one of the first schools in the US to create a doctorate in nursing practice (DNP), and continues to prepare future clinicians, researchers and nurse leaders.

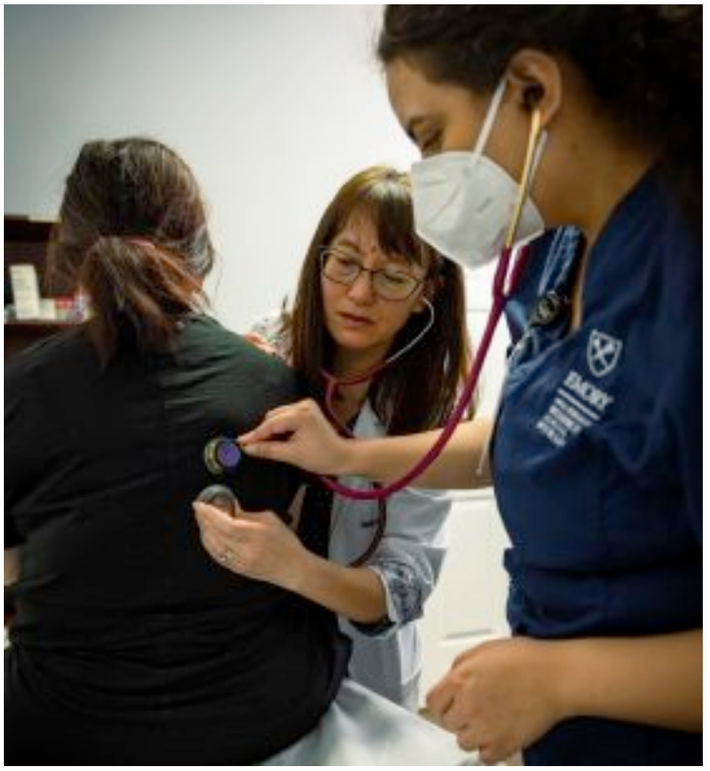
"Throughout the history of the school, including today, we focus on innovation and influence," says Dean Lorraine Frazier, PhD. This focus includes research on the future of nursing, such as the use of technology and data science. A top recipient of US National Institutes of Health research funding (ranked number one among US nursing schools in 2022), Columbia Nursing addresses health disparities for underresourced populations and advances equitable health policy and delivery.

"Nursing has been the most trusted profession in the US for 22 years," explains Frazier. Maintaining that trust is about recruiting people who will mirror the community they serve and help achieve equity in healthcare. "We look for students who have a passion to make a difference. Nursing is rewarding, but it is demanding, and that purpose to work with people and serve communities is what makes it worthwhile." Students can choose from master's and DNP programmes in various specialities and a PhD, and there are stipends for those who need financial help.

The state-of-the-art school attracts students from around the world to its New York campus. However, its reach is global as students have access to rotations in 14 countries and the school is a World Health Organisation Collaborating Centre.

A partnership with NewYork-Presbyterian Hospital offers the future nurses hands-on experience so they can practise as soon as their studies are over. This is just one of some 175 sites the school has agreements with. "We want our graduates to be practice-ready and really present for their patients," says Frazier. "Technology is important, but so is understanding the human needs of each patient. We are very connected with real life."

www.nursing.columbia.edu



AT HOME AND ABROAD

THE NELL HODGSON WOODRUFF SCHOOL OF NURSING AT EMORY UNIVERSITY ENCOURAGES STUDENTS TO EXPERIENCE DIVERSE HEALTH ISSUES ACROSS THE GLOBE

The Nell Hodgson Woodruff School of Nursing at Emory University in Atlanta, Georgia, is an inclusive, international community renowned for its academic excellence, pioneering research and exceptional standard of teaching.

The school, which is consistently named one of the best in the United States, is home to more than 1,200 students and the Lillian Carter Center for Global Health and Social Responsibility, which for over two decades has provided a professional hub for the school's response to world health issues – from Ebola and Covid-19 to bioterrorism, natural disasters and heat crises.

"At the Lillian Carter Center, we define global health broadly, encompassing research and practice outside the US and projects in collaboration with immigrant and underserved communities locally," says Linda McCauley, PhD, RN, FAAN, FRCN, Dean of the Emory School of Nursing.

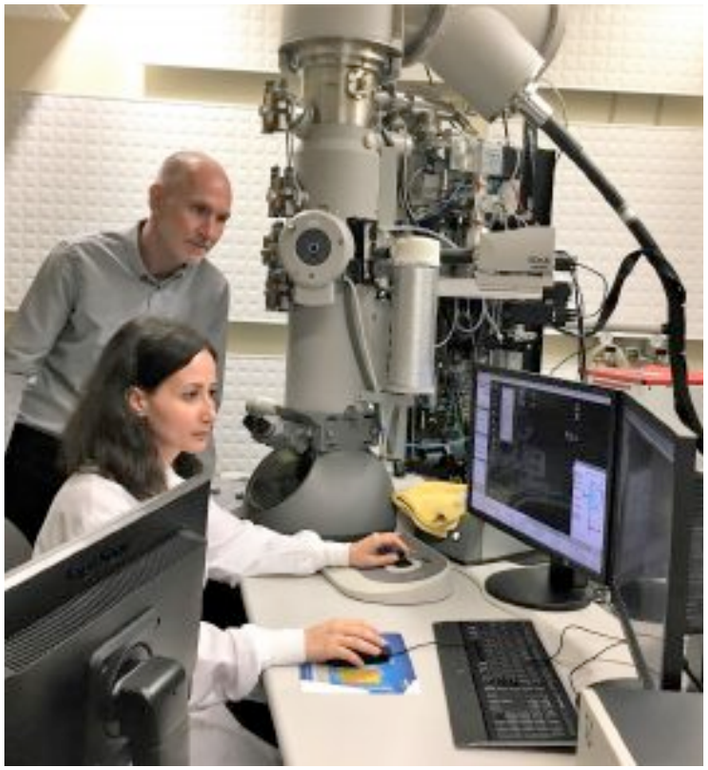
In line with the guiding philosophy of the school to prepare nurses to become globally engaged citizens, the Lillian Carter Center reflects the work of its namesake, Lillian Carter, mother of former US President Jimmy Carter and a public health nurse, Peace Corps volunteer and social activist. The centre's mission is to improve the health of vulnerable people worldwide through the strategic international application of courses, curricula, research and policy.

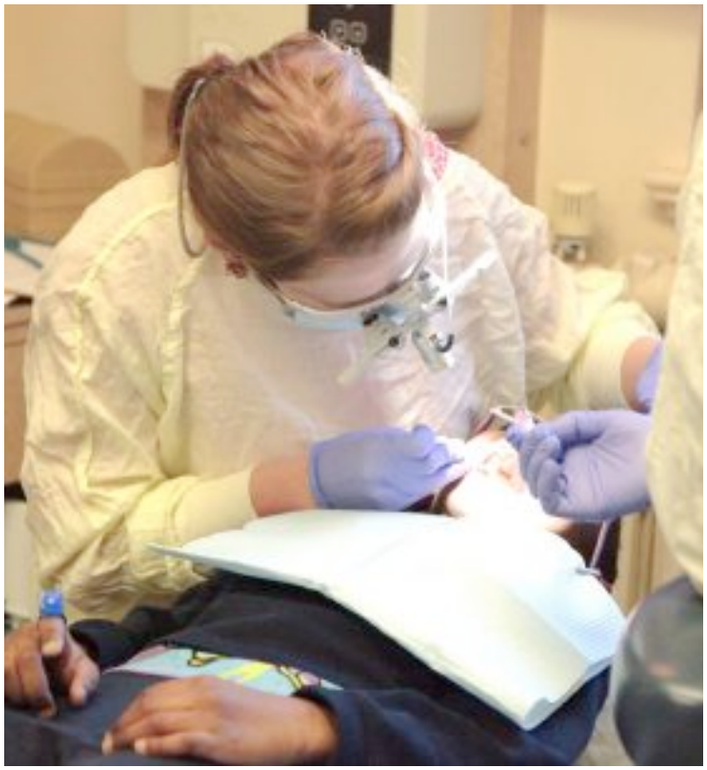
The Lillian Carter Center works closely on sustainable projects with local, national and global organisations across multiple sectors. Students are encouraged to explore opportunities, both domestically and internationally, in locations such as the Atlanta metropolitan area, South Georgia, northern Florida, the Caribbean, Ethiopia and Peru.

The projects are guided by the communities in which the students are placed, using an interdisciplinary approach to address the multiple interlocking factors that influence global health, including access to fresh food and clean water, community ties, personal stress, lived environment, availability of health services and social issues.

"The centre ensures that global-minded research, service learning and social responsibility are infused throughout a student's time with us," says McCauley. "Equipped with these experiences, students are prepared to enter an ever-diverse patient population and meet the needs of patients where they live."

www.nursing.emory.edu





INCLUSIVITY IN DENTISTRY

THE FACULTY OF DENTAL MEDICINE AND ORAL HEALTH SCIENCES AT MCGILL UNIVERSITY INNOVATES IN EDUCATION, RESEARCH AND COMMUNITY SERVICES TO PROMOTE INCLUSIVE DENTISTRY

Society has changed in the more than 100 years since the Faculty of Dental Medicine and Oral Health Sciences began in Montreal, Canada, but its spirit of innovation keeps it aligned with the times.

"We are always thinking outside of the box, and forge ahead with a strengthened commitment to building a healthier future for all," says Dr Elham Emami, the first female Dean at the faculty. "We are committed to a legacy of learning relying on a strong core faculty, loyal alumni and supporters."

The Faculty of Dental Medicine and Oral Health Sciences promotes and advocates for oral health, student-centred approaches, evidence-based practice and global citizenship. By integrating the principles of equity, diversity and inclusion in the learning environment, and providing learning opportunities in community settings, it develops conscientious clinicians and community leaders; and through community partnerships and national and international collaboration, it promotes sustainable growth, connectivity and innovation.

The faculty offers undergraduate, graduate and postgraduate programmes in a dynamic and diverse setting. It also provides support and mentorship for all students, particularly those from underrepresented socio- and ethnocultural backgrounds. The faculty's five-year strategic plan aims to increase the recruitment of black and Indigenous students, as well as those from rural and remote areas.

Located in Montreal, a vibrant bilingual city, McGill is an attractive environment for aspiring international students, with a full range of services and resources. The faculty has invested in digital dentistry, state-of-the-art facilities and research laboratories. The dedicated staff and highly knowledgeable educators inspire and prepare students for their future roles in a rapidly evolving society. One of the world's most research-intensive dentistry faculties, it focuses on areas such as pain and neuroscience; mineralised tissues and extracellular matrix biology; biomaterials, nanobiotechnology and tissue engineering; and population oral health. New areas of research include rare diseases, artificial intelligence and microbiomes.

The faculty shares the NHS' vision and mission of ensuring that healthcare services are accessible, fair and inclusive to all by reducing oral health disparities, providing patient and culturally centred care, and training an inclusive dental workforce.

www.mcgill.ca/dentistry

RURAL MEDICINE EXCELLENCE

MEMORIAL UNIVERSITY'S FACULTY OF MEDICINE IS RECOGNISED AS A LEADER IN TRAINING RURAL FAMILY DOCTORS IN CANADA

The Faculty of Medicine at Newfoundland and Labrador's Memorial University is the only medical school in this easternmost province of Canada. Its first class graduated 50 years ago. Back in 1973, there were just 20 students; now, there are some 320 undergraduates in total, plus up to 600 residents and graduate students. While the school has grown since its inception, its relatively small size ensures those who study there receive unrivalled care and attention.

"One of the significant strengths of our school," says Dr Margaret Steele, Dean of the Faculty of Medicine, "is that we really focus on training physicians for rural and underserved areas. Our vision statement is: 'Through excellence, we will integrate education, research and social accountability to advance the health of the people and communities we serve'. While a lot of universities have strategic plans, we really live by that vision."

Medical students start their patient contact early in those communities, which are at the heart of the entire establishment. The Society of Rural Physicians of Canada has presented the university with the Keith Award ten times, for having the largest percentage of family medicine graduates practising in rural Canada for the most recent ten years after graduation. In addition, it has received the Rural Medical Education Award five times, for having the highest proportion of medical students entering rural residency programmes.

The university also offers three designated medical school places for Indigenous students from the province, and research programmes are tailored to the needs of the communities it serves. The focus on global health, community engagement, distributed education and Indigenous health has distinguished the Faculty of Medicine at Memorial as a truly inspiring and rewarding place to both learn and work.

"We are a jewel in the crown of Newfoundland and Labrador," says Dr Steele. "And, since we are the only medical school in the province, we try to be as responsive as possible to what is needed. We have a great team and excellent students, faculty and staff. For a small school, we definitely punch above our weight."

www.mun.ca/medicine

A STREAMLINED SERVICE

MENTOR MERLIN AIMS TO FAST-TRACK QUALIFIED NURSES TO THE NHS WITH ITS ALL-IN-ONE EDUCATION AND PLACEMENT SOLUTION

There is a shortfall of around 40,000 registered nurses in the UK – a number that could increase to 140,000 by 2030–31. For an NHS that is already struggling to meet patient demand, this will only increase the pressure on the service. One company that is seeking to solve this issue is Mentor Merlin, which is currently training up to 250 international nurses a month.

"We formed the company in April 2021 to help the UK solve the staffing shortage crisis with an all-in-one solution," says Chief Operating Officer and co-founder Hermercheese Balan. "This is a combination of services and technology designed to support health services and care homes by reducing cost and fast-tracking the recruitment process. The combination of our services and technology will improve patient care, as well as the quality of the staff training and wellbeing."

Mentor Merlin is currently the largest training provider for nurses based overseas who are seeking to work in the UK. The company has partnered with the NHS and other employers to drive international training, as well as training carers who wish to become registered nurses. The long-term plan is to create an IT platform that will combine all recruitment services: shortlisting, training, examinations and on-boarding. "Problems can come in any size," says CEO and co-founder Cyril Roy. "It is all about how you summarise them for an effective solution."

To bring more nurses more quickly into the NHS, Mentor Merlin plans to reduce the recruitment process from up to nine months to around two or three months. "We are training around 250 overseas nurses a month, and we want to double that in 2024," says Roy.

By relieving the stress caused by workforce shortages, this will help with staff retention. For Mentor Merlin, this is all part of making a difference and inspiring others to do so. "We are already a leading training provider for international nurses who want to come to the UK, and we are expanding across the UK because of high demand," says Roy. "We know that the NHS is one of the best healthcare systems in the world," says Balan, "but that workforce is under more pressure than ever before. Our approach will help the healthcare sector to find staff and support patient care."

www.mentormerlin.com

COMMUNITY OF SCHOLARS

THE OXFORD INSTITUTE OF NURSING, MIDWIFERY AND ALLIED HEALTH RESEARCH WORKS WITH FRONTLINE HEALTH PROFESSIONALS FROM MULTIPLE DISCIPLINES FOR EVIDENCE-BASED OUTCOMES

A multidisciplinary team of researchers in healthcare and related social care is rare, but this is what sets the Oxford Institute of Nursing, Midwifery and Allied Health Research (OxINMAHR) apart. This world-leading community of scholars at Oxford Brookes University is committed to identifying, examining and implementing best-quality healthcare research across nursing, midwifery and allied fields such as physiotherapy, occupational therapy, exercise science and psychology. "Nurses, midwives and allied health professionals are on the frontline of healthcare and related social care," says Professor Paul Carding, Director of OxINMAHR. "Their regular interaction with patients, technology and science at the sharp end of the service provision means they're ideally placed to design, publish, implement and benefit from evidence-based research."

By creating more research opportunities, they can share their expertise while furthering their own professional development. "We can improve both the profession(s) and the service provision," says Carding. This holistic approach "enriches the quality of research, increases its relevance and enhances the implementation of evidence-based practice".

OxINMAHR works with, or is commissioned by, organisations including government institutions, charities, NHS England, the National Institute of Health Research (NIHR), and the European Commission. Its team of academics and professionals have strong links with related bodies, such as the Royal College of Nursing and the Chartered Society of Physiotherapists, further extending the reach and pertinence of its research.

As healthcare providers modernise and adapt, Carding says he hopes to see nurses, midwives and allied health professionals recognised for their clinical and research expertise, and taking responsibility for aspects of patient care that do not necessarily require a doctor. "I'd like to see support for their professional development given the same weight as for doctors."

OxINMAHR is driven by the idea that empowering these health professionals to reach their full potential, rather than overburdening them, will not only increase job satisfaction and retention, but also improve the patient experience. "This," says Carding, "is best achieved by implementing change based on multidisciplinary evidence-based research, underpinned by frontline experience and expertise, such as that led by OxINMAHR."

www.brookes.ac.uk/oxinmahr

A MODERN PRACTICE

FROM INTERPRETING DATA TO WORKING WITH NEW TECHNOLOGY, THE MEDICAL FACULTY AT THE UNIVERSITY OF BONN EDUCATES STUDENTS FOR THE FUTURE

Discoveries in medicine, including new therapies and diagnostics, happen so rapidly now that it can be hard for medical students to keep up. Professor Bernd Weber, Dean of the Medical Faculty at the University of Bonn, says that is why it is so important to educate the students as closely to research as possible and integrate new technologies into education, like point-of-care ultrasound or Large Language Models like GPT.

"We combine our strengths in research with education, so our students also benefit from being at an excellent research university," says Weber. "Practical clinicians have to be able to understand and critically interpret scientific results."

Bonn is one of only 11 Universities of Excellence in Germany. Its medical faculty was one of its founding faculties, established in 1818, and is closely affiliated with University Hospital Bonn. Research specialities include oncology, neuroscience, cardiovascular research, immunosciences and infection, as well as genetics and epidemiology.

There is also a big focus on communication skills. "We have a communication curriculum where students interact with actors and real patients. Healthcare is a team effort, so we teach them how to work with other professionals, including nursing and midwifery students."

Most students who attend are from Germany, as all studies are in German. However, the medical faculty also attracts international students, particularly for its master's courses in immunosciences, neurosciences and global health.

"We also have a strong network of around 190 general practitioners who we collaborate with on research and education," says Weber. Bonn has also established a partnership with St Andrews University in the UK, where there is a long-established relationship with local GPs. "We are very interested in what we can learn from a comparison between the NHS and our system."

As many students will work in medicine for decades after they finish their studies, being able to keep up with changes and developments is crucial. "The way we try to educate our students is to enable them to continuously also educate themselves," says Weber. That includes helping them keep up with new technologies and the role that the ever-increasing amount of data will play in the future.

www.medfak.uni-bonn.de

THE SCIENCE OF NURSING

ST CLOUD STATE UNIVERSITY HAS ONE OF MINNESOTA'S TOP-RATED NURSING PROGRAMMES, AND ITS GRADUATES STAND OUT WITH EMPLOYERS AND PATIENTS

It is said that employers recognise a St Cloud State University (SCSU) nursing graduate the moment they see one in action. Nurses who have come through the acclaimed Department of Nursing Science at this university in Minnesota in the US, are widely regarded as capable, highly skilled and competent.

"We focus heavily on clinical experience and getting every student practice-ready so that, when they graduate, they are ready to hit the ground running," says Jane Bagley, the Department Chair. "Employers say our students excel in their ability to deliver a comprehensive assessment and that their ability to think critically is top rate. A graduate will encounter a complex situation and make effective and safe decisions. From an employer's viewpoint, they really stand out – they recognise a SCSU nursing graduate immediately because of that high-level training."

This anecdotal evidence is confirmed by results – SCSU Nursing has a top-rated nursing programme in Minnesota when it comes to the national licensing exam for registered nurses. The university opened its nursing school in 2001 to meet local demand, particularly in rural regions, with the first cohort graduating in 2004. The school offers two programmes – a traditional pre-licence programme lasting two-and-a-half years, and a completion programme for registered nurses who want to complete a baccalaureate degree. A family nurse practitioner programme is in development.

Students come from all over the world, and many will work in the NHS and other health systems. More than 60 per cent of students come from disadvantaged backgrounds, whether that be related to ethnicity, socioeconomic status, or that they are the first member of their family to go to university.

Nurses leave SCSU having already completed a high number of clinical hours, and their education concludes with "a capstone experience" – immersion in a particular clinical study.

"We focus on healthcare across a lifespan," says Bagley. "Nurses must be equipped to manage a patient from birth through adulthood. We also teach students to provide a culturally congruent foundation to their nursing care. We have students and patients from diverse backgrounds, and it's important that our students understand how to provide care that is appropriate to all individuals."

www.stcloudstate.edu/nursing

PILLAR OF THE COMMUNITY

SAM HOUSTON STATE UNIVERSITY'S COLLEGE OF OSTEOPATHIC MEDICINE PLAYS A SPECIAL ROLE IN HELPING THE PEOPLE WHO NEED IT MOST

In the US, graduates of osteopathic medical colleges are fully qualified to practise medicine and surgery, alongside focusing specifically on the musculoskeletal system in the promotion of good health. "One of the ways a US doctor of osteopathic medicine, known as a DO, differs from a doctor of medicine (MD) is that we have a more hands-on and holistic approach," says Dr Thomas J Mohr, Dean of Sam Houston State University (SHSU) College of Osteopathic Medicine in Texas. "We see the patient and their systems as a whole and build strong ongoing healthcare partnerships with them, to help prevent disease as well as to treat it. About 10 per cent of our work is manual manipulation, the rest is similar to our MD counterparts."

SHSU College of Osteopathic Medicine shares the philosophy of the NHS, believing that everyone deserves good health. "This is one of the principles we instil in our students, around 50 per cent of whom will go on to deliver primary care in deprived communities and rural areas, often hours away from the things many of us take for granted in healthcare, like state-of-the-art hospitals, specialist medical centres and even stores with fresh fruit and vegetables to support a healthy diet."

Cutting-edge science and specialist MDs undoubtedly have a pivotal place in healthcare, explains Dr Mohr. And, as almost all medical students in the US graduate with significant debt, many understandably lean towards a financially rewarding medical specialism. However, the DO has a particularly special place in the healthcare of deprived and remote communities, with its own unique rewards.

"Rural areas experience a range of challenges, from accessing acute primary care to obtaining ongoing medical support for the elderly and chronic diseases, so the role of DO is diverse and interesting," he says. "Scientific developments and remote medical technology are fantastic, but sometimes you can't beat the human touch, familiar face and trusted allyship of a local DO to support, diagnose and treat patients. Being the person privileged to deliver that care, not only to one person, but to a whole community, sometimes a couple of generations of that community, is priceless."

www.shsu.edu

REAL-WORLD READY

USING SIMULATION AND IMMERSIVE EXPERIENCES, STAFFORDSHIRE UNIVERSITY'S SCHOOL OF HEALTH, SCIENCE AND WELLBEING IS A DRIVING FORCE IN DIGITAL HEALTHCARE EDUCATION

Upon entering the "simmersive spaces" at Staffordshire University's Centre for Health Innovation, you never know exactly what you might find. Part of the School of Health, Science and Wellbeing, the space may resemble an airport or shopping centre in the wake of a disaster, or the hard shoulder of a motorway at night as cars whizz past an accident. Digital technology changes the room's appearance, creating scenarios and settings for students training to be healthcare professionals. How will they respond and what can they learn about patient safety that they can bring to their careers with the NHS?

"The school places great emphasis on equipping learners with the knowledge and skills to become the very safest practitioners they can be," says Mike Phillips, the school's Executive Dean. "It's about delivering high-quality healthcare education in an innovative and digital way. What really stands out is our 'simmersive' approach, which combines simulation-based education with immersive technology. It allows us to deliver incremental exposure to real-world NHS practice."

Staffordshire University has long been a pioneer in computer games design, AI and robotics, and data analytics. This accumulated knowledge now feeds into the healthcare education provision. As well as the simmersive spaces, the state-of-the-art facilities include immersive replicas of hospital wards and operating rooms, as well as domestic settings for care givers and social workers.

The university has carried out research into human factors and ergonomics – such as how teamwork, reaction time and building design impact healthcare professionals. Vital research is also taking place to identify safe staffing levels, an important factor for the NHS in the next 75 years. Further use of technology creates "virtual placements" for students who require real-life experience to complete their training. All courses are designed with input from staff, students, NHS trusts and healthcare service users.

"This is research that we anticipate will feed directly into public policy," says Phillips. "It will allow for better planning and recruitment. We need to develop students who are prepared to hit the ground running. The strain on existing staff is already so great, it's incumbent upon us as education providers to push the curriculum and the skills we teach so our students are ready for what faces them."

www.staffs.ac.uk

TRAINING TOMORROW'S DOCTORS

THE UNIVERSITY OF MONTREAL'S FACULTY OF MEDICINE IS REVERED FOR ITS VISIONARY INITIATIVE IN ADDRESSING DOCTOR SHORTAGES

Many organisations aspire to social responsibility, but the University of Montreal's Faculty of Medicine, a French language institution, has been leading the way in this area for two decades. In 2003, facing a shortage of physicians outside major urban centres, the faculty launched a pioneering initiative to establish a decentralised campus in the Mauricie region of Quebec, Canada.

"It was a revolutionary idea to train physicians in the region, for the region," says the Dean of the Faculty of Medicine, Dr Patrick Cossette. "And time has shown it has been a real success, increasing the number of physicians who stay in the region after completing their studies. It has also strengthened our faculty's links with rural communities, such as the First Nation, and inspired other faculties in Quebec and beyond.

"Our patient-partner programme is another long-standing social-responsibility initiative that has global recognition," adds Cossette. The innovative patient-partnership bureau involves patients in decision-making in areas such as teaching, healthcare systems and governance.

Founded in 1843 and incorporated into the university in 1920, the faculty blends influences from the medical traditions of Britain, France and the US. Alongside social responsibility, its mission includes excellence in teaching and research, transforming the way tomorrow's health professionals learn their discipline. "We've largely replaced traditional, amphitheatre lectures with problem-based learning," says Cossette. "Guided by a tutor, small groups of students analyse and solve problems, taking responsibility for their learning as they would in a real-life situation."

The faculty spearheads research across all areas of medicine, with particular focus on neurosciences and mental health, cancer and immune diseases, cardio-metabolic health and genomics. The university is a global leader in AI and digital health, with a goal to develop and implement decision-making tools in clinical practice. In 2022, the University of Montreal was ranked fourth in Canada's top 50 research universities. Two-thirds of its research grants are awarded to the medical faculty.

"Our faculty excels in all three aspects of our mission," says Cossette. "Montreal is a special city to live, study and research. I am excited to be training the next generation of physicians in an environment that celebrates creativity and innovation, and has the audacity to pioneer groundbreaking concepts and humanisation of care. The doctors we train become first-class, fully rounded physicians, who demonstrate excellence in all aspects of their role."

www.medecine.umontreal.ca

NURSING FOR ALL

THE UNIVERSITY OF CALGARY'S FACULTY OF NURSING IS PRODUCING SOME OF THE MOST INNOVATIVE, INCLUSIVE PROGRAMMES FOR DEVELOPING CAREERS

Graduates of the University of Calgary Faculty of Nursing are providing the latest evidence-based, best-practice nursing to some of the remotest communities in Canada. They are also transforming healthcare across the world.

"Nurses are vital members of any community, especially in remote areas," says Dr Sandra Davidson, the faculty's Dean. "As we see a shift towards more community-based healthcare to manage chronic conditions and an ageing population, the demand for, and on, nurses will increase."

Nurses are the primary – sometimes only – connection between patients and healthcare services, which makes them "perfectly placed to pinpoint systemic problems and identify solutions. Global investment in quality nursing education, research and development is essential."

The University of Calgary is renowned for innovation. This is reflected in the faculty's undergraduate and graduate nursing programmes, created in collaboration with nurses, healthcare providers and community groups. They are also tailored to Canada's Indigenous communities. The faculty has removed geographical barriers to entering nursing through online learning, supported by nursing mentorships and healthcare partnerships in student communities.

Its graduate offering includes part-time, one-year professional development certificates, in specialisms ranging from addiction and mental health to leadership for health-system transformation. The flexible and stackable online courses fit around the busy lives of nurses and keep pace with an evolving field. Specialisms encompass areas of pertinent professional interest, and certificates offer a pathway to further study. "We're not just committed to nurturing nursing excellence, we want to empower nurses beyond the bedside. Our students and alumni make significant contributions to pivotal research, nursing leadership and strategic healthcare transformation."

To support such career progression, the faculty offers Master of Nursing and Doctor of Nursing programmes, as well as a PhD. "These programmes, which are also open to international students, support nurses to explore, develop, diversify and share their knowledge and experience," says Davidson. "In so doing, they discover and fulfil their potential, and gain the tools and confidence to lead positive change in patient care and the nursing profession."

http://nursing.ucalgary.ca

ADVANCING MEDICAL EDUCATION

CUTTING-EDGE DIGITAL TOOLS PUT STUDENTS AT THE UCI SCHOOL OF MEDICINE AHEAD OF THE HIGH-TECH CURVE

The University of California, Irvine (UCI) is home to the UCI School of Medicine, a revolutionary institution that is putting life-changing technology in the hands of its students to advance medical education, clinical practice, patient experience and global healthcare equity.

The school's Dean, Dr Michael Stamos, and the Vice Dean of Medical Education, Dr Khanh-Van Le-Bucklin, are aligned in their goal to blend the best conventional teaching methods with technological innovations, through the groundbreaking iMedEd initiative and its Medical Education Simulation Center.

"Our first-year medical students are equipped with an iPad and a Butterfly iQ portable ultrasound unit from day one," says Dr Le-Bucklin. "The iPad enables them to access online resources wherever they are, including our learning management system, mobile clinical apps and digital textbooks. It also connects to their portable ultrasound unit.

"The ultrasound units support the development of ultrasound and diagnostic skills and strengthen our students' physical exam capabilities through a deeper understanding of anatomy. Outside classrooms, students have used them to assist diagnoses in hospitals, and when volunteering in developing or underserved regions. This demonstrates the potential for portable technology to improve healthcare equity, and we are proud that our students are at the forefront of its use."

In the high-fidelity Medical Education Simulation Center, students access tools for practical learning and the development of communication and crisis-management skills. These include mannequins (programmed to mimic almost all crisis scenarios) and a mock full-scale operating room, emergency room, trauma bay, obstetrics suite and critical care unit. Students also practise interpersonal skills, from interviewing to counselling and patient assessment with people trained as "patients". The seamless blend of ultrasound and simulation education results in a unique tech-integrated clinical skills curriculum.

A long-standing Apple Distinguished medical school, UCI School of Medicine has been a global leader in pioneering the partnership between tech and tradition in medical education for several years – a strategy evidenced by its alumni excelling in practice. Building connections with scientific innovators, it continues to stay ahead of the curve, and is already exploring the latest technological evolution: the role of AI in student learning and the future of healthcare.

www.medschool.uci.edu

SKILLS TO SUCCEED

THE UNIVERSITY OF CHESTER'S DIVERSE COURSES IN HEALTH, MEDICINE AND SOCIETY ARE SERVING THE NEEDS OF STUDENTS, THE NHS AND THE NATION

"The NHS is a powerhouse of research, innovation and best practice, from which others around the world learn," says Angela Simpson, Pro-Vice-Chancellor of the University of Chester's Faculty of Health, Medicine and Society. "It is intrinsically linked to what it means to be British – with many pointing to the NHS as something that makes them proud, so we are keen that people understand the role of the University of Chester in supporting the NHS."

Professor of Nurse Education, Simpson has a detailed understanding of health policy and a track record of linking this to professional programme development. "Universities have an increasingly critical role to play in delivering skilled graduates in areas that are technical and informed by employer need," she says. "The strategic importance of collaborating with the NHS and engagement with emerging Integrated Care Partnerships cannot be overstated."

In partnership with the NHS and local authorities across Cheshire and Shropshire, the faculty offers programmes in nursing, midwifery, physician associate, social work, nutrition and dietetics, and art therapy. The faculty also prepares practitioners skilled in Talking Therapies for Anxiety and Depression. Some can be studied as apprenticeships, and in 2023 the faculty opened its first Higher Technical Qualification for nursing associates. The university won University of the Year at the Social Worker of the Year Awards 2022, and is also home to Chester Medical School, led by Dean Professor Arpan Guha; the Health and Wellbeing Research and Knowledge Exchange Institute; and the Westminster Centre for Research in Ageing, Mental Health and Veterans.

The Covid pandemic, says Simpson, revealed how the NHS worked in the best interests of patients while pioneering new treatments and approaches to care. "Practice adapted during Covid, especially in the digital space, will continue to inform how we deliver our programmes. After Covid, the NHS introduced new ways to support staff, diversify its core workforce and offer flexible career pathways that are open to everyone. The university will keep step with this approach as we continue to support the next generation."

The NHS will also need to adapt to meet future needs. "In an era of integrated care," says Simpson, "the importance of different agencies, including universities, working together for the health and wellbeing of the population, has never been more important."

www.chester.ac.uk

THE HUMAN ELEMENT

THE UNIVERSITY OF PITTSBURGH SCHOOL OF MEDICINE NOT ONLY ACHIEVES GREATNESS IN BIOMEDICAL AND CLINICAL RESEARCH, BUT ALSO STRIVES FOR A COMPASSIONATE HEALTHCARE SYSTEM

"The NHS offers a great model, not only to provide comprehensive care to a population, but also to use that platform for research and development," says Dr Anantha Shekhar, Senior Vice Chancellor for the Health Sciences and Dean of the School of Medicine at the University of Pittsburgh, which, founded in 1787, is one of the oldest universities in the US.

"We're very well positioned in our region to do exactly that," he says, of the academic partnership the schools have with UPMC (University of Pittsburgh Medical Center). "We have an enormous health system caring for roughly five million people in Pennsylvania, a massive research footprint, and, unlike most other academic medical centres in the US, we also have an insurance company that insures four million people. So, in some ways, we have a mini NHS the size of Scotland, and we should be doing something good with that. We have a fantastic opportunity to model and partner with each other."

Pittsburgh has signature status as a research university, and Shekhar is now pushing the frontier in neuroscience: higher brain functions, Alzheimer's and neurodegenerative diseases, in particular. "There's a lot of work being done on depression, schizophrenia and mental-health issues, to help find clues to treat Alzheimer's and severe mental illness," he says. While UPMC provides much high-end care, it is also renowned for organ transplants, trauma care, and gene and cancer therapy.

"My push has been that while we'll continue to be great in all these things, we also need to bring in the human element. That all starts with having empathy and compassion for people who are suffering. When you're compassionate, it changes their entire physiology."

Shekhar says that he has always envied what the NHS has built, and, while in Pennsylvania there is much wonderful care, nationally there are pockets of areas where people have limited access. There are higher than acceptable levels of infant mortality and extremely poor outcomes from diabetes, for example – all of which is preventable.

"That's one of my big reasons to push compassion," he says. "It's not just about providing care for people who are well educated and can afford it; we need to protect our entire community."

www.medschool.pitt.edu

SERVING SOCIETY

THE UNIVERSITY OF SOUTH WALES IS CHANGING LIVES AND THE WORLD FOR THE BETTER, OFFERING HEALTH AND SOCIAL-CARE GRADUATES OPPORTUNITIES IN THE REGION'S COMMUNITIES

The University of South Wales (USW) has delivered health and social-care education for decades, building a portfolio in line with its ambition to be the UK's premier, multi-disciplinary healthcare education provider. With state-of-the-art facilities that include physical simulation and a Hydra critical incident decision-making suite, USW offers high-quality, applied programmes with outstanding employment prospects.

USW is embedded within the Welsh health education and healthcare delivery ecosystem. With deep roots in local communities, improving health and wellbeing in the region is a focus of the USW 2030 strategy.

This echoes the motivations of Aneurin Bevan, Minister of Health, 75 years ago. An advocate for the new concept of healthcare, the NHS, he witnessed the social deprivation in South Wales and the work of institutions, such as the Medical Aid Society in his hometown of Tredegar, to improve health outcomes. "USW is a university of its place, embedded in its community, with a strong focus on social justice," says Dr Ian Mathieson, Associate Dean for Health and Social Care. "This extends beyond producing high-quality healthcare professionals to ensuring, through our widening participation programmes, that anyone who has the values, behaviours and ability to become a healthcare professional can do so."

The Welsh government commissions the university to deliver programmes in pre-registration nursing, midwifery, physiotherapy, operating department practice and occupational therapy, as well as post-registration qualifications, such as advanced practice, independent prescribing, and specialist practitioner qualification nursing and health visiting. These attract bursary support, which can include tuition fees and maintenance grants, which, for pre-registration programmes, links to a commitment to work in Wales for two years on graduation. Placements with partner health boards across Wales are rich and varied, and the government helps graduates find their first role.

USW's graduates work in a range of practice locations (hospitals, community clinics, home-based care, prisons, private healthcare and specialist schools). "While there is strong local recruitment, there are also students from further afield who are attracted by the warm welcome and the campus locations in and around Cardiff," says Mathieson, "which allow diverse experiences, from the buzz of the cities, to the beauty of the coast and the valleys."

www.southwales.ac.uk

INSPIRING BEST PRACTICE

CONNECTIONS TO FRONTLINE CARE ENSURE YOUNG HEALTHCARE PROVIDERS GRADUATE FROM THE UNIVERSITY OF SURREY'S SCHOOL OF HEALTH SCIENCES WITH A STRONG SENSE OF COMPASSION

"A career in the NHS is unlike any other," says Professor Melaine Coward, Head of the School of Health Sciences at the University of Surrey. "Few workplaces offer the camaraderie, the opportunities and the privilege of making a difference to so many lives."

Melaine and many of her colleagues have worked, or are still working, in the NHS alongside lecturing, mentoring and researching at the School of Health Sciences. This provides a connection to the health service for the students and ensures the school stays in step with its evolution.

The school offers undergraduate qualifications in midwifery, nursing and paramedic science, as well as continuing professional development (CPD) courses. Postgraduate research specialisms include digital health; ageing and long-term conditions; cancer care; maternal child and family health; and workforce and wellbeing. The school's alumni normally work in healthcare in the UK and overseas. Some, like Melaine, eventually return to education and research.

As a cancer nurse and healthcare manager, Melaine realised she could make a difference to even more patients' lives by sharing her expertise and enthusiasm for compassionate healthcare with a classroom of students, who could then go on to make a difference themselves. She also wanted to encourage best practice, inspire good leadership and empower others to make the most of the many career development opportunities available to them.

For 75 years, the NHS has adapted to developments in science and technology. This evolution is seen in the school's state-of-the art facilities and evidence-based practices, with support from healthcare partnerships, mentorships and close links to frontline care. "One of the wonderful things about healthcare is that it is always evolving," says Melaine.

"Career development is a necessary part of this evolution, but it also allows opportunities for personal development: you may want to move from one area of nursing to another that better fits your personality, interests or life stage. Or you may want to take a sabbatical to work in the voluntary sector. Or undertake research into a subject of particular significance to you. Or, like me, you may want to return to education to inspire the next generation of healthcare practitioners and help to shape the future of patient care."

www.surrey.ac.uk

CHAPTER 15

MEDICAL EQUIPMENT


ASK ME ABOUT
GIVING
BLOOD

THE GIFT OF LIFE

DATING BACK TO THE YEAR THE NHS ACT WAS DRAFTED, NHS BLOOD AND TRANSPLANT STILL RELIES ON THE DEDICATION OF ITS STAFF, DONORS AND SUPPORTERS TO DELIVER ITS LIFE-SAVING SERVICE

On 26 September 1946, the Ministry of Health took control of Britain's blood banks, launching the National Blood Transfusion Service. Since that day, the service has enabled countless lives to be saved through the generous gift of blood donation.

Although modern blood transfusion has its roots in the First World War, the creation of many of the UK's first blood banks came after the outbreak of the Second World War as a national response to the need to help treat injured civilians and service personnel. In 1996, the service became a truly nationally co-ordinated body, rather than a series of regional blood centres, and its most recent major change came in 2005, when it merged with UK Transplant to form NHS Blood and Transplant. While there have been many changes since it was set up, however, one constant remains to be the unwavering commitment of blood donors to the cause.

Carole Hynes, a donor care supervisor with 35 years of experience, has witnessed that devotion first-hand. "One of the things that has always moved me is when a donor says that the reason that they've come to give – whether whole blood, platelets or plasma for medicine – is that someone in their family was saved after receiving the blood products that we collect," she says. "It's rewarding to know that every donation not only saves lives but creates the potential to inspire future donors. In that way we are not only responding to the needs of patients and the NHS today, but also ensuring we are there for everyone for the future."

LEFT
Every year, the service collects two million voluntary blood donations, which are then prepared for use and distributed to hospitals across England

"It's rewarding to know that every donation not only saves lives but creates the potential to inspire future donors"

FLAGSHIP SERVICE

Therapeutic Apheresis is one of NHS Blood and Transplant's key services, and the only one that deals with patients directly. The service treats approximately 1,600 adults and children every year from eight dedicated therapeutic units across the country. These specialist services remove harmful, disease-forming proteins, chemicals or cells from patients' blood. Treatments include plasma exchange for neurology, renal and haematology patients; automated red cell exchange in support of patients with sickle cell disorder; and stem cell retrieval for bone marrow transplantation.

The service's strategic partnerships have also helped it make landmark changes to the collection of blood products. These include significant moves that recognise NHS Blood and Transplant's expertise and rigour in providing one of the safest blood supplies in the world. In May 2021, the FAIR (For the Assessment of Individualised Risk) steering group, led by NHS Blood and Transplant and including other UK blood services and a range of stakeholders, including LGBT groups, made recommendations in line with scientific evidence, which have changed the criteria around who can give blood. This has made the donation process a more positive and inclusive experience for all, enabling more men who have sex with men, for instance, to donate blood, platelets and plasma.

In addition, the UK government, following expert scientific advice, decided in February 2021 that plasma from UK donors could again be used for immunoglobulin medicines – the first time in 20 years. NHS Blood and Transplant has since taken plasma donations for immunoglobulins – vital medicines, used to treat people with weak and malfunctioning immune systems – and also started recovering plasma from whole blood.

DONOR DIVERSITY

However, the future still presents many challenges, including meeting the demands of a patient population that is growing more ethnically diverse. The treatment of blood conditions such as sickle cell disorder and thalassaemia is heavily reliant on blood that is closely and ethnically matched, but many ethnic backgrounds are underrepresented among registered blood donors.

Fortunately, large numbers of people are joining the cause. In 2020–21, the number of black blood donors with the Ro subtype, used to treat people with sickle cell disorder, went up by almost 10 per cent. At the same time, however, demand continues to increase by 15 per cent each year and donated blood is needed to support the 15,000 people in the UK living with the condition. That's why more blood donors from black ethnic backgrounds remains an urgent priority.

Colin Anderson has almost 40 years' experience of working at NHS Blood and Transplant and is the talented

ABOVE
The National Blood Service merged with UK Transplant to create NHS Blood and Transplant

choir master behind the B Positive Choir, which was started to inspire more people of black heritage to register to donate blood.

"It's so important that NHS Blood and Transplant engage our African and Caribbean communities to register and donate blood regularly, particularly to help treat UK sickle cell patients," he says. "People with this genetic disorder – the majority of whom are from African and Caribbean descent – require regular transfusions.

"That means they need blood from donors with a similar ethnic background to give them the opportunity to live a more normal life. NHS Blood and Transplant currently needs to quadruple the number of black blood donors to meet rising demands."

As part of the Restore clinical trial being led by NHS Blood and Transplant, the service's researchers conducted the first in-human clinical trial of red blood cells grown in the laboratory from adult donor blood stem cells. The trial marks a significant step towards using manufactured blood to improve treatment for patients with rare blood types. The hope is that this will provide a novel transfusion product for these patients in the future, some of whom require regular transfusions throughout life, such as for thalassemia or sickle cell disorder.

As NHS Blood and Transplant looks ahead, one thing is clear: the service will need the support of each one of its staff, donors, partners and supporters to achieve its goal of continuing to improve and save lives.

ABOVE
NHS staff operate an apheresis machine, which separates plasma from blood

CREATING IMAGING CAPACITY

AGITO MEDICAL IS MEETING THE NEEDS OF THE NHS WITH THE LATEST DIAGNOSTIC EQUIPMENT THAT IS AVAILABLE TO RENT

Finding the ideal balance between the needs of patients and the restrictions of a hospital budget is one of the biggest challenges faced by any NHS trust. How do you ensure you have the latest essential – and often very expensive – equipment to meet demand without blowing your entire budget on a single high-tech piece of kit that will need replacing in another five years? AGITO Medical is helping the NHS to manage this issue by providing the latest CT and MRI scanners, as well as relocatable cath labs to diagnose and treat cardiovascular disease, for short or long-term lease.

Whether these devices are needed for ten years, or just a couple of months during an emergency, or for a hospital rebuilding programme, AGITO has the flexibility and resources to respond to the specific requirements of the NHS. This ensures that healthcare professionals, as well as patients, always have access to the best and latest medical equipment.

"It's about serving the NHS with a complete package of tailor-made solutions," explains Jamie Duijn, AGITO Medical's CEO. "That means providing rental over a short or long-term period. We have the knowhow within Agito to provide such dedicated support, whether it's a scanner on lease or rent that needs to be provided in-house, or out-of-house mobile solutions. We take what is most needed in the market, the best technology, and provide it at an advantageous price point for the exact period the care provider would like to have it."

AGITO Medical was founded in Denmark in 2004 and expanded to Spain, France, Germany and the Netherlands, as well as the UK. The company was created to provide customers in the healthcare industry with cost-efficient imaging equipment and spare parts, often involving pre-owned equipment. Additionally, it would provide trade-in solutions for healthcare providers who wanted to replace out-dated equipment with modern versions, which required the dismantling, packaging, loading and transporting of used units. As the company grew, it was acquired by Philips in 2018. This provided the capital for the next

stage of the journey, which saw increased investment in the latest imaging equipment to rent or lease to healthcare providers across Europe. That included the NHS, which accounts for a significant proportion of business.

"What we saw in the market was that due to budgetary constraints with hospitals and other care providers, there was a desire for more short-term and interim solutions to deal with deadlocks," explains Duijn. "Knowing the hospital might not have the capital, we began to supply a different kind of solution for the organisations that didn't have the budget to invest in new equipment."

A test of AGITO's skills came during the Covid pandemic. "This demonstrated how quickly we can respond to an urgent need," says Duijn. The company arrived in northern Italy within days of the first major outbreak in Europe, installing a mobile CT facility to support overwhelmed hospitals. It also worked alongside the NHS throughout this time, investing in mobile and relocatable CT scanners for short and long-term use at emergency sites across the country. "Part of our success is down to how quickly we organise the solution for our customers. We sometimes need to provide our equipment for only a few months; for instance, if a hospital has done a trade-in with old equipment but still needs to bridge a gap for a couple of months while they wait for the new machine to be installed."

The ability to hone capacity to respond to the health service's specific needs has seen AGITO develop a very strong relationship with the NHS. It currently has a fleet of around 60 units that can be leased to the NHS for periods of up to a decade or as little as a few months. The company retains a lean structure with around 50 employees, so it can respond quickly and directly to the sector. Regional offices are supported by local partnerships.

"In terms of spare capacity, we ensure we have something that we could provide short-term if there is an urgent request. We try to stay ahead of the curve and invest cleverly so we can have some sort of back-up for our customers. Additionally, there are always new systems coming out of factories that we can acquire and deploy. We have seen a huge increase in demand for our fleet of devices."

"Part of our success is down to how quickly we organise the solution for our customers"

AGITO maintains close relationships with equipment manufacturers to ensure machines are frequently serviced, which extends their life and further supports healthcare providers. This runs alongside a first-class management system, with the company's engineers table to monitor the state of equipment that has been deployed in the field. These is supplemented by regular routine inspections to ensure that devices are kept in their best condition for as long as possible.

"Our strength compared to others in the business is that we are highly flexible and really listen to what the NHS requires. We also actively invest in the latest and greatest imaging equipment, so they don't have to do it themselves. As we see the demand for diagnostic equipment increase year on year, we can help the NHS tackle its waiting list by providing the equipment that is required."

This flexibility is only possible because the company has developed the skill and knowledge to anticipate future demand. "We have increased our fleet in CT and MRI availability and also the latest CAT lab, which we have installed across the UK," says Duijn. "We can't provide a five or ten-year plan because maybe in that time the NHS will need something completely different. What we can do is understand their needs, the capital constraints they face and the demand for high-tech equipment, and then continue to cater for it. We try to understand what their needs will be and invest in the equipment that not only makes the most sense today, but also for the next few years."

www.agitomedical.com

PERSONAL SERVICE

BVM MEDICAL DEVELOPS FIRST-RATE MEDICAL DEVICES IN CONJUNCTION WITH HEALTHCARE PROFESSIONALS, PRIDING ITSELF ON DELIVERING EXEMPLARY CUSTOMER SERVICE AND SUPPORT

Shortly after BVM Medical was founded in 1989 to distribute specialist life-saving devices for congenital heart disease, vascular surgery and interventional radiology, the company received a call from a hospital in Dublin. A patient had a blood clot and was in danger of having a life-threatening pulmonary embolism. BVM Medical had the kit that could save the person's life – but there seemed to be no way of getting the device to the hospital the same day.

"We had this device and a patient who needed it, but no way of getting the device to the hospital", says Hitesh Tailor, who specialises in devices that treat congenital heart disease and works in Business Development at BVM Medical. "In the end, we hired a four-seater plane that went from Coventry to Dublin. It meant that we got the device to the patient and the surgeon was able to save them. We have always gone out of the way to make sure patients get the treatment they need."

BVM Medical still goes that extra mile today in its commitment to offering the NHS a 24-hour service. Indeed, BVM Medical's founding motto is "helping to improve patient outcomes".

The company is much more than just a distributor, however. It works closely with stakeholders to develop new equipment and then trains NHS healthcare professionals in how to use the technology. BVM Medical staff also receive phone calls from surgeons who require a vital piece of equipment and know that the best way forward is to contact BVM Medical directly.

This collaboration with the health service ensures the best patient outcomes, allowing the NHS to operate efficiently and effectively as new therapies and treatments are developed. "We recently introduced a new treatment for benign thyroid nodules [growths on the thyroid gland]," says Emily White, Sales Manager for radiology endoscopy at BVM Medical.

"Previously, the patient would have needed surgery, but we worked with University College Hospital (UCLH) to introduce a new treatment that allows them to go home the same day, within


10:19

an hour of the procedure, without having to go into theatre. We help train doctors, setting up centres where the treatment can be done, and accompany doctors during procedures if they are unfamiliar with the equipment. We have a very strong focus on helping the NHS."

It is a similar story in cardiology, where BVM Medical has introduced to the NHS several devices that fix holes in the heart, co-developing septal closure devices that now only require a minimally invasive procedure as opposed to full, open surgery. BVM Medical also holds clinical trials for new devices and develops educational programmes for NHS staff in order to "treat patients who might not otherwise have been treated," says Tailor. This work is often done in one of the most critical parts of healthcare, working with babies and young children who are born with heart defects. The company provides devices that allow doctors to operate on foetuses and new-born babies, and it even distributed the equipment used for the very first heart valve that was implanted through a catheter.

"We will talk to clinicians who have ideas for products and then approach biotech companies to see if it is viable," explains Tailor. "The device we helped develop to close a hole in the heart was conceived by a cardiac radiologist based in Minneapolis. We had the prototype, we showed that around and received a lot of interest, and now that device is widely used. Through that relationship, we helped bring a number of other devices to the healthcare market, getting them approved in Europe, which then led to their approval in the US."

BVM Medical distributes a device that opens a hole in the heart for babies whose heart has been transposed, a birth defect in which the two main arteries carrying blood out of the heart – the main pulmonary artery and the aorta – have switched positions. This extraordinary equipment creates a hole in the septum, a wall of tissue, allowing blood to flow until the baby is strong enough to undergo an operation to reverse the arteries.

In addition, BVM Medical provides custom-made stents for individual patients, including children. The company works with doctors to create a bespoke design before having the stent manufactured by a specialist in the US – a process that can be completed in little more than a month.

"We deliver the tools, but we also deliver the education and support for the NHS"

At the start of his career, Tailor spent the best part of a year attending procedures at Guy's Hospital in London to gain an understanding of heart surgery. Like many BVM Medical staff, he observes operations today to provide product support – sometimes ongoing help that lasts long after a sale has been completed. The company sees itself as a valued partner to the NHS, and its staff understand the important role they can play in people's lives.

"I have been doing this for a long time, but I still get very emotional when I see a child on an operating table awaiting a life-saving procedure," says Tailor. "That is really what motivates us. You realise that if that was a member of your own family in theatre, or somebody you knew, you would do whatever it takes. That's exactly how we see what we do at BVM Medical, and it's why we will do anything we are asked. It is an attitude shared by everybody at the company."

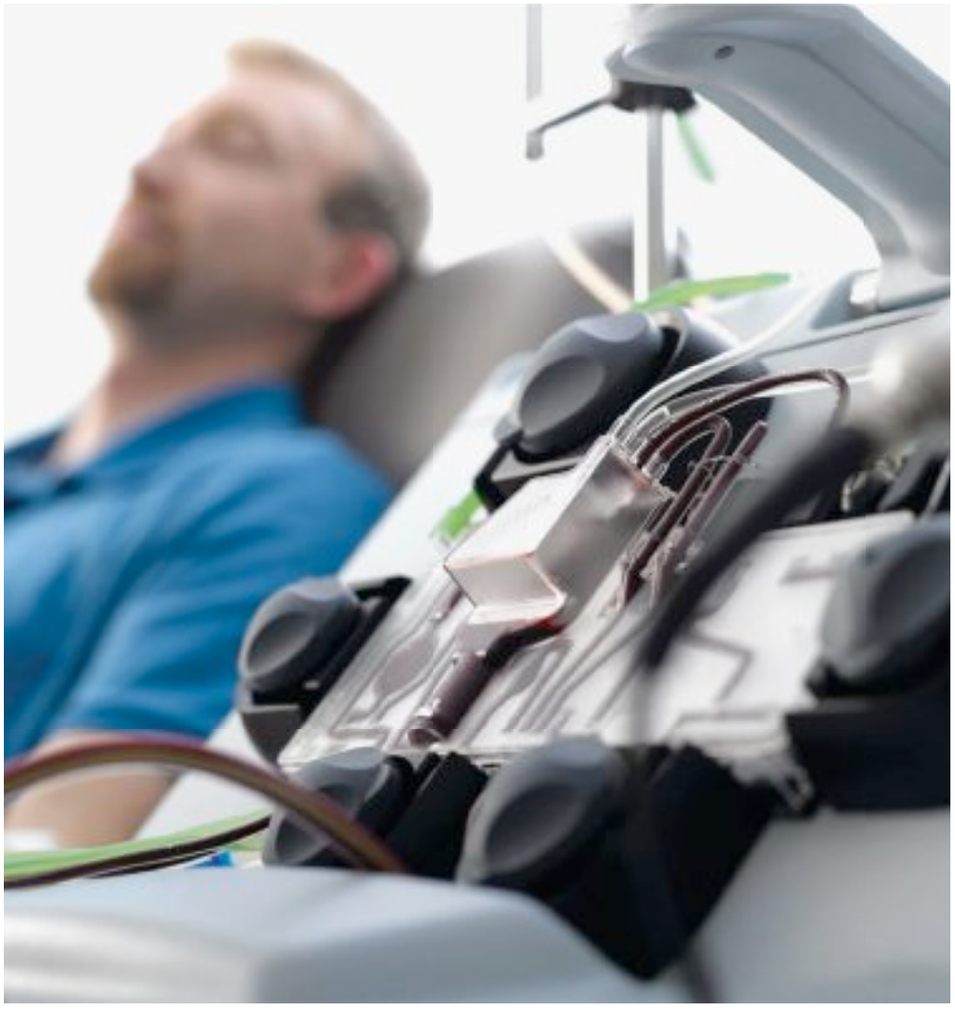
As new devices come into development, BVM Medical will be on hand to introduce them to the NHS, ensuring that patients have a second chance of life. "We deliver the tools but also deliver the education and support for the NHS," says Tailor.

"We have access to these devices before they are widely known; we work with companies to develop the kit and we set up clinical trials. The clinicians we work with recognise us as specialists in the field. They understand that we are the best route for them to serve the needs of the NHS."

www.bvmmedical.com

LIFEBLOOD OF CARE

TERUMO BLOOD AND CELL TECHNOLOGIES HAS BEEN INNOVATING IN HEALTHCARE FOR DECADES, BUILDING THE TECHNOLOGY TO COLLECT BLOOD, PLASMA AND CELLS



Acces to safe blood is at the heart of international healthcare, with an estimated 120 million blood donations collected worldwide each year. Blood components – platelets, plasma and red blood cells – have many uses, from routine surgeries to treatment of conditions such as severe bleeding or cancer. Collecting, processing and storing this blood, as well as unlocking its therapeutic potential through next-generation cell therapies, are essential services. They require specialised technologies such as those made by Terumo Blood and Cell Technologies, a medical technology company with products, software and services that enable customers to collect and prepare blood and cells to help treat challenging diseases and conditions.

Healthcare systems around the world, among them the NHS, use the innovations of Terumo Blood and Cell Technologies. The company partners with the NHS to support its transfusion medicine needs with medical technologies and services that transform blood donations into safe, transfusable blood components. And in the hospital setting, they collaborate to bring enabling therapeutic solutions to help physicians better manage their patients. An example from 2022 is the NHS MedTech Funding Mandate, an initiative to support cost-saving technology that improves patient experience

and health outcomes. The NHS chose the company's Spectra Optia Apheresis System to help treat people with sickle cell disease. The aim is to save the NHS an estimated £13 million a year while helping to tackle some of the UK's health inequalities.

"Our mission is to contribute to society through healthcare," says Antoinette Gawin, President and CEO of Terumo Blood and Cell Technologies. "The NHS plays a critical role in delivering equitable health services to communities across the country, and we are honoured to contribute to this vital work through our products and services.

Together, we share a vision to serve more patients and improve their health outcomes. We realise this by putting the patient at the centre of everything we do. We believe in the importance of collaboration, evidenced by our relationship of over 20 years, and strive to deliver solutions that support the NHS in their mission to provide the best possible care to their patients."

Terumo Corporation, the Japanese company that owns Terumo Blood and Cell Technologies, was founded in 1921, giving it a history in healthcare longer than that of the NHS. The company that later became Terumo Blood and Cell Technologies was itself founded almost 60 years ago and has been at the forefront of innovation. Blood collection, processing and storage have changed significantly over time. When the NHS was founded, blood was still being stored in glass bottles – the switch to sterile blood bags was the first of many changes that have transformed the industry. "That was revolutionary," says Gawin.

"And with an ever-growing understanding of the health benefits of blood and its components, the need for efficient and accessible blood processing and therapy delivery increased. Our company's commitment to innovation allowed us to revolutionise blood collection and processing, bringing in automation technology that dramatically reduces processing time and waste while increasing efficiency. This remarkable advancement paved the way for greater access to blood components for more UK patients."

The company's Naren Vinayak, General Manager Northern Europe, explains that NHS healthcare professionals use its technologies for various aspects of patient care. For example, the Trima Accel Automated Blood Collection System is used to collect blood components from healthy donors. These blood components are then used for transfusions to help people with

"We work to promote access to a safe and sustainable blood supply around the world"

medical conditions such as acute bleeding or cancer, and for patients undergoing surgery or hemorrhage during childbirth.

Therapeutic apheresis, explained simply as the replacement or exchange of blood components, is another area where the company works closely with the NHS. Together with its enabling technology, Terumo Blood and Cell Technologies offers deep industry-specific clinical and scientific expertise to help NHS staff achieve the best possible patient outcomes. "The company is particularly proud of its work supporting sickle cell disease treatment," says Gawin. "The NHS is just as passionate about this as we are – we are all working together to make treatments more accessible."

Therapeutic apheresis is also used to collect cells for stem cell transplants, as well as starting material for cell therapies. "One NHS strategy is to be a leader in cell and gene therapy," says Vinayak. "This is an area where we can work together to further improve patient outcomes. Our Spectra Optia apheresis technology helps manage stem cell collections used in CAR-T manufacturing to support the next generation of therapies."

Plasma collection to produce plasma protein therapies is yet another area where the company supports the NHS. Plasma is a vital component of blood that contains many different proteins, including antibodies and clotting factors. Following the lifting of restrictions on plasma medicines in the UK, the company's technology was the first used to collect plasma, enabling increased access to essential protein therapies.

"Focusing on unmet patient needs and working closely with the NHS to address these needs through technology and innovative business models helps ensure that healthcare continues to improve and evolve," says Gawin. "By taking a holistic approach, it is possible to drive progress in a sustainable and impactful way."

Terumo Blood and Cell Technologies stands out in the highly specialised medical technology industry because of its strong relationship with customers and local communities. "The average length of a working relationship between the company and its customers is an astonishing 20 years," says Gawin. "The reason is, we have a strong commitment to delivering the support and services that come alongside our products. We are there to support customers throughout, for the benefit of their patients."

www.terumobct.com

DRESSED FOR SUCCESS

WITH ALMOST 150 YEARS OF EXPERIENCE IN CLOTHING DESIGN, ALEXANDRA PROVIDES HEALTHCARE PROFESSIONALS WITH INNOVATIVE UNIFORMS OF THE HIGHEST GRADE

"Our roots were in the development of high-quality ladies fashion and drapery, and we are proud to have played a part in the advancement of women's workwear at the start of the 20th century, to where we are now honoured to serve the NHS," says Hayley Brooks, CEO at Mi Hub, a global uniform solutions group, whose Alexandra brand was awarded the Royal Warrant in 2002 and provides uniforms to NHS trusts across the UK.

Alexandra has had a fascinating journey, from its establishment in Bristol in 1854 selling high-end fashion to women, to now being a tier one supplier to the NHS in England for medical scrubs and gowns. It was named after Alexandra – the fashionable wife of the future King Edward VII – who was instrumental in the founding of modern nursing units such as the Red Cross and Queen Alexandra's Royal Army Nursing Corps, and has a long history of supplying uniforms for generations of student and qualified nurses and other healthcare professionals throughout the UK.

As part of Mi Hub, Alexandra has a global supply chain and is ideally equipped to meet the high standards of the NHS. Alexandra's response to the pandemic was recognised in December 2020, when the brand won the Healthcare and Pharmaceutical category in the prestigious national Supply Chain Excellence Awards. A key member of the Alexandra Business Development team was also recognised by the NHS for their strength, courage and support at this time, and was awarded a commemorative badge.

Today's uniform of tunics and trousers or scrubs is available in numerous colours to denote different roles and ranks, and is easily recognised by patients, relatives and staff. The close relationship between Alexandra and those who work in demanding healthcare settings enables the team to develop garments that not only considers the wearers' needs, but also the different environments and the performance needs for each role. Designing the uniforms to meet tomorrow's demands is a constant process of innovation and collaboration.

"In 2022, we attended the Royal College of Nursing Congress so that we could talk to nurses from the various healthcare communities, to understand what their uniform needs are for the future," says Brooks. "It's essential that we talk to our wearers. A key part of the design process is that we engage with them directly and understand the needs of those on the frontline. From our understanding of the healthcare environment, we can develop garments with the wearer in mind that meet the needs of the individual, irrespective of age, gender, body shape, job role or other individual requirements and preferences."

Aside from providing uniforms, Alexandra is committed to raising awareness of the nursing profession and influencing the younger generation with their career choice. "We are aware that only 11 per cent of the nursing population is male," says Brooks. "As such, we have been part of a pioneering team working on an innovative project with the Scottish government and NHS Scotland to widen recruitment to the profession, as we believe that attitudes and ideas are formed as early as primary school."

No matter what the outcome of the project, it is clear that the nursing profession has changed dramatically over the years to become a diverse and empowered profession, and it will continue to grow into an even more important aspect of the healthcare industry within the years to come.

www.alexandra.co.uk

TOOLS OF THE TRADE

WITH ITS RANGE OF SINGLE-USE ENDOSCOPY DEVICES, AMBU IS GIVING HOSPITALS THE INNOVATION THEY NEED TO RUN HEALTH SERVICES EFFICIENTLY

When Ambu introduced the world's first single-use flexible bronchoscope, the Ambu aScope, more than a decade ago, it transformed markets and benefited patients and health systems around the world, including the NHS. Ambu has since expanded its presence across four major endoscopy segments, providing devices that are cleaner, cheaper, easier to use and often more sustainable than others. Today, millions of patients and healthcare professionals worldwide depend on the efficiency, safety and performance of Ambu single-use endoscopy, anaesthesia and patient-monitoring devices.

"We keep disrupting the global healthcare industry with smarter, simpler solutions that break down conventional barriers for hospitals and clinics," says Alexandra Marheineke, Marketing Director at Ambu. "Because our products are cost effective and highly portable, we allow services such as the NHS to upscale very quickly. We are well placed to support the NHS and align with government initiatives to reduce the waiting-list backlog, increasing patient access to diagnostic tests."

Single-use endoscopy is a simple, effective way to deploy and scale services, helping hospitals to rapidly increase capacity as they can run clinics out of hours, including weekends and evenings. Reusable devices need to be cleaned through a High-Level Disinfection process after use – at a significant cost in terms of staff and disinfection facilities – and the departments that reprocess equipment are often closed at these times. "That's just one important aspect of what we do and how we can continue to support the NHS."

The company was founded in 1937 in Denmark, but its breakthrough came in 1956, when the Ambu ventilation bag reached the market. The world's first self-inflating resuscitation device was so successful that Ambu became the name by which many self-inflating bags are known. It was a major milestone in emergency medical equipment and continues to be a permanent part of hospitals' and emergency services' product ranges. Ambu continued to design new single-use medical devices, but the arrival of the first single-use bronchoscope in 2009 marked another significant development: until then, most bronchoscopes were reusable.

"In the last five years alone, we have expanded our presence in pulmonology to the fields of ENT (ear, nose, throat), urology and GI (gastroenterology). We now offer endoscopy professionals across hospitals a strong ecosystem of quality endoscopy solutions."

There are provable advantages to using single-use devices, even if "single-use" may seem to be counterintuitive. They can be more environmentally friendly after factoring in the water, energy and chemicals required for cleaning reusable equipment. In fact, Ambu already meets Scope 3 environmental targets, and is seeking to improve this record further with the introduction of a pilot recycling scheme. In the past 15 years, single-use endoscopy has proven to be a strong lever for hospitals and clinics, as it frees up valuable resources for increasingly pressured health systems. Single-use endoscopes are always available, 100 per cent sterile, which removes the risk of cross-contamination between patients, and they do not require costly repairs or burdensome reprocessing.

Ambu's innovations support healthcare professionals and hospitals so they can better serve patients. "Our overriding purpose is to rethink solutions to improve patient care," says Marheineke. "We are constantly innovating, introducing new single-use devices much faster than our competitors, and lead the way in our ability to change trends, hearts and minds within the NHS and other health systems."

www.ambu.com

HAND IN GLOVE

ANSELL DELIVERS MILLIONS OF SURGICAL GLOVES TO HEALTHCARE EACH YEAR, HELPING THE SECTOR ADHERE TO THE HIGHEST LEVELS OF SAFETY, PRODUCTIVITY AND SUSTAINABILITY

Medical professionals use countless pieces of equipment when performing daily tasks, but arguably no instrument is more important than their own hands. That makes protecting those hands an essential task. Ansell, a global safety solutions expert, was founded 130 years ago and now specialises in providing medical devices and personal protective solutions for a range of industries, including the gloves used to safeguard medical practitioners and their patients from harmful pathogens and allergens. As a direct result of Ansell's approach to innovation, NHS staff use surgical gloves that are more robust, thinner and less harmful to surgeons, nurses, patients and planet.

"What makes Ansell different is the breadth of the portfolio and the new products and technologies that we have introduced to the market," says Dr Monica Sagardoy, Senior Director for Global Marketing. "We have not only innovated with the products themselves, but also our packaging to reduce waste. This is appropriate given the NHS plans to be carbon neutral by 2040."

In 2013, Ansell began a process that reduced packaging by 50 per cent. That meant less waste and allowed the company to transport more products to the UK from their zero-waste-to-landfill factories, securing essential supply lines. The new packaging was smaller and easier to store, so hospital staff had greater access to more equipment when space was limited. Nurses had explained to Ansell that this was a priority.

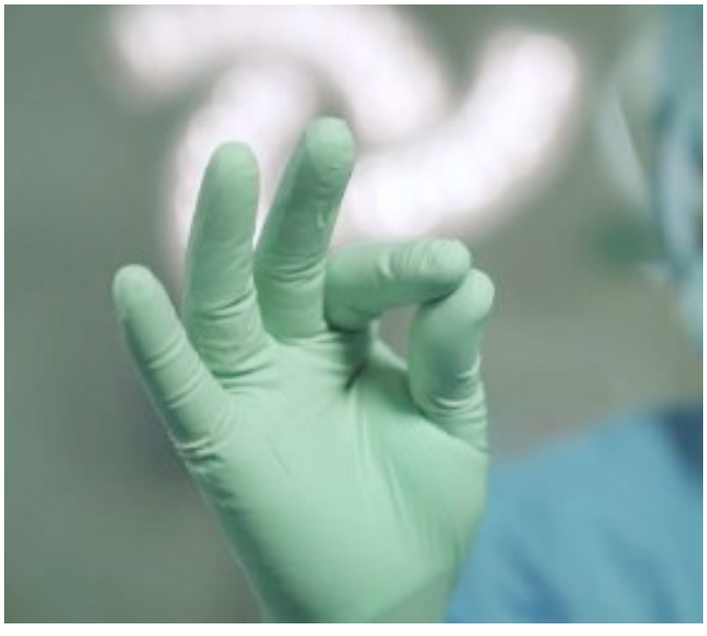
This exemplifies the co-operation and ingenuity that has made Ansell a global powerhouse from its origins as an Australian offshoot of Dunlop tyres. The company produces billions of gloves each year, including hundreds of millions for the healthcare sector, and is leading an industry-wide shift towards non-latex gloves to support those who experience type I latex and type IV chemical allergies, as some manufacturers use hazardous chemicals such as DPG and ZMBT. Importantly, Ansell's non-latex Polyisoprene (PI) range, featuring PI-Kare technology – which enables the elimination of standard chemical accelerators known to cause allergic contact dermatitis – are just as robust and effective as latex gloves.

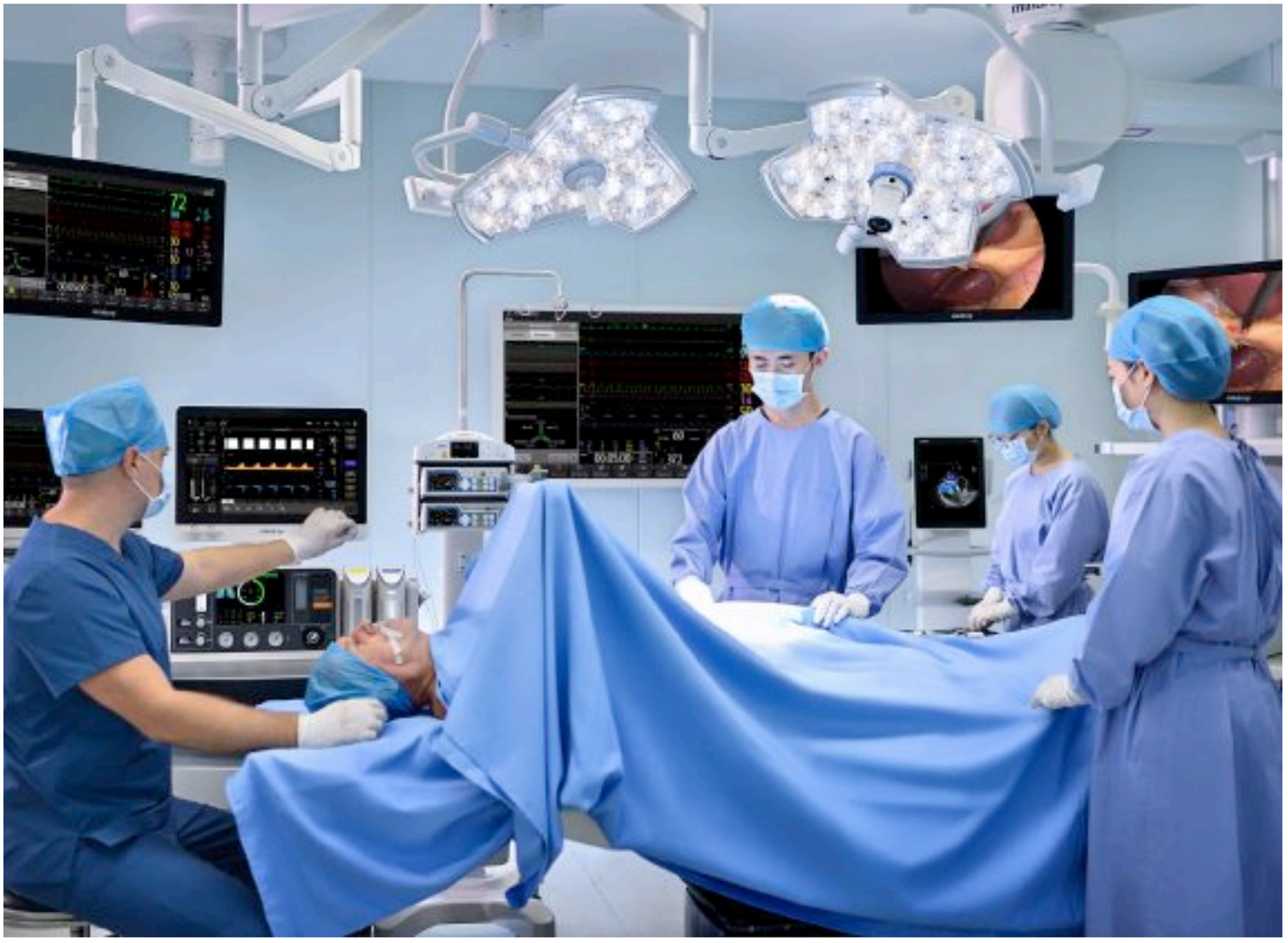
"Historically, people would have to leave the industry when they came up against these type I latex and type IV chemical allergies – and the more you're exposed, the more likelihood you are to develop sensitivity," says Joshua Stevens, Marketing Manager. "Being able to provide solutions means staff do not have to take sick leave, which is a huge benefit for the NHS. It also means that hospitals are looking after their staff by not putting them in environments where they are at risk of developing an illness. All that is better for patient care. More hospitals are now realising that the best way they can work effectively and efficiently is by transitioning to non-latex."

Protecting the patient and professional and planet are the three pillars on which Ansell's future is built. Sixty-two per cent of NHS emissions come from its supply chain – which makes sustainability in this area so important. Having transformed the way that gloves are made, and radically improved supply, Ansell is now working on their end-of-life disposal. That might mean using different materials, says Sagardoy. "There's a lot of discussion around new biodegradable materials rather than some of the petroleum-based ones that are used today.

"From now on, there's going to be a lot more thinking about how we can reduce this waste or treat it in a better way."

www.ansell.com






mindray

SUPPLY AND DEMAND

MINDRAY'S STRONG INVESTMENT IN RESEARCH AND DEVELOPMENT IS LEADING TO A PLENTIFUL SUPPLY OF MEDICAL DEVICES TO MEET HEALTHCARE NEEDS

"Innovation is non-stop at Mindray, and we're extremely proud that the NHS is among the influential voices helping us shape the future of healthcare," says Paul Bailey, General Manager of Mindray UK, a leading developer of medical devices. "The aspiration is incredible – we now have over 3,900 research and development engineers globally, with a goal to bringing out between seven and 12 new products every year."

The UK office of this international Medtech company, headquartered in China, is in Huntingdon, Cambridgeshire, where equipment for patient monitoring, life support, anaesthesia and ultrasound is the focus.

"Our bedrock is the patient monitoring side. During the pandemic we were one of the major suppliers to the NHS, helping set up many of the intensive therapy units to save lives and support caregivers," says Mindray UK's Patient Monitoring and Life Support Marketing Manager, David Britton. "That really brought home how fantastic the NHS is as an institution."

"Connectivity is important. It's about how we collect data from all the devices around the patient's bedside and make it easier for clinical teams to view anytime, anywhere. Our system has an open architecture, which means we can easily link to third-party equipment. Rather than being a blocker to progression of patient data, we open doors."

Mindray is also in demand for its wearable and wireless patient monitoring and diagnostic systems, which can help reduce hospital waiting lists. "The wearable devices mean we can get those patients up and out of hospital more quickly with remote and continuous status monitoring. We are doing anything we can to make care as efficient as possible," says Britton. "There's huge demand for medical imaging, too, so our ultrasound systems have smart tools to improve the speed and accuracy of image capture and diagnostics. With our new wireless transducer, crucial images and data can be shown on mobile phones to save time."

Mindray joined the AAA (abdominal aortic aneurysm) screening scheme in Scotland and supplies ultrasound technology for essential work around aneurysms. "It's about catching aneurysms early and improving survival rates," explains Britton. "We focus heavily on early intervention – trying to make healthcare accessible for all and improve outcomes."

On top of supplying the NHS, Mindray is also working with charities such as the Scotland-based Kids OR, which sets up operating rooms for children's surgery in areas of Africa where funding is not in place. "Corporate social responsibility is a key focus for Mindray," says Britton. "We are also partnering with the company SageTech Medical to 'scavenge', recycle and reuse waste anaesthetic gases before they harm the environment."

Outside clinical settings, a partnership with the charity London Hearts is placing Mindray's AEDs (automated external defibrillators) locally to help improve survival rates from sudden cardiac arrest. When it comes to producing the next generation of advanced medical developments, there are very few roadblocks. "The R&D engineers from the headquarters regularly come over to ask customers what they want," says Bailey. "They don't just wait for requests; they make sure they understand our market dynamics, and whether we have enough people to serve our customers. It's not always just about the product, it's about bringing resources to the country.

"One of the things that always comes across is their admiration for the NHS. They are amazed at the principles it is built on."

www.mindray.com/uk

IN SAFE HANDS

AS CREATORS OF THE FIRST GEL HAND SANITISER AND DISPENSING TECHNOLOGY, GOJO INDUSTRIES HAS ALWAYS KNOWN THAT NECESSITY IS THE MOTHER OF INVENTION

The story of GOJO Industries began during the Second World at a rubber factory in Ohio. At the end of the day, Goldie Lippman and her colleagues found it difficult to remove the grease from their hands without irritating the skin.

So, in 1946, Goldie and her husband Jerry founded GOJO to solve this problem, teaming up with a chemistry professor at Kent State University to create a heavy-duty yet gentle hand cleaner. "Even in its inception, the company was based around finding solutions to real-life problems for keeping people healthy and safe and protecting the skin," says Managing Director Chris Wakefield. "The founders listened to people and responded to what they learned."

The invention of the hand cleaner led to a string of innovations. To make it cost effective, Jerry invented the first portion-control dispenser, patented in 1952. Three decades later, GOJO launched its sanitary refill washroom soap systems, and in 1988 it brought the first gel sanitiser onto the market. PURELL Instant Hand Sanitizer combined the efficacy of alcohol sanitation with the convenience of a gel. Both easy to use and effective, just a small amount would cover the hands. Alongside a selection of the company's hand soaps, this important product has been supplied to NHS hospitals for many years, playing a key role in GOJO's relationship with the health organisation.

The importance of alcohol-based hand sanitising gels for hand hygiene was reinforced during the pandemic. "The recent focus on public health and hand hygiene has changed behaviour, but not all products and solutions are equal," says Wakefield. "We have a team of scientists who understand how these ingredients, materials and usage interact with the skin and protect the skin at the same time as protecting the person."

This specialist knowledge combined with a commitment to constant innovation is what Wakefield believes sets the company apart from its rivals. It is still family run and continues to invest in scientific studies, while protecting against future spikes in demand with a more robust supply chain and increased production capacity.

At the same time, GOJO is focusing on sustainability measures, working to reduce the use of single-use plastics and increase recycling. As Wakefield says, "We all have a responsibility as individuals and companies to play our part in protecting our planet and our ecosystem."

www.gojo.com

OPTICAL FOCUS

SPEC-CARE'S UNIQUE TECHNICAL OPTICAL SERVICE SUPPORTS CLINICS, PROVIDING SPECIALIST SPECTACLE FRAMES AND ADAPTATIONS, INCLUDING FOR THOSE WITH SPECIAL FACIAL CHARACTERISTICS

When Rob Barrow broke his glasses in the playground as a child, they were sent to Spec-Care for repair. In 2002, he bought that company, bringing years of experience as a qualified technician through the Worshipful Company of Spectacle Makers, of which he is Liveryman, and as a dispensing optician through the Association of British Dispensing Opticians.

Spec-Care uses the latest technology to repair and modify spectacles for hospitals, paediatric clinics and opticians. The Exeter-based team of six works on up to 250 pairs of glasses a week. "No one in the UK provides a similar service," says Barrow, Spec-Care's Director. "As professional partners, we work with clinics as part of their team, which has led to fantastic opportunities."

Spec-Care's innovative approach has won awards such as the 2021 Optician Award for Technology Provider. "We pioneered using 3D printing for making specialist adaptations for children, particularly those with facial asymmetries," explains Barrow. "We showed the judges that sometimes you don't need to invent a new technology to innovate, you just need to apply it to those who need it."

Passing on expertise is important to Barrow, and Spec-Care is a free apprenticeship provider. "I benefited from a lifelong mentorship from manufacturer Frank Norville, OBE, so I know how important that is."

Recent inventions include frames suitable for children on the autism spectrum who have sensitivity issues. They have sliding ear locks and soft silicone pads on parts that touch the face. We see myopia management as a developing market requiring specialist frame design. Our unique special locking features aid comfort and secure spectacle placement. "Lenses have to fit with a greater degree of accuracy for management to be effective. Any slipping down could have a detrimental effect."

To mark the NHS's 75 years, Spec-Care has launched eyewear provider Exeter Eyewear, to reduce the cost of specialist frames for the NHS and its contractors. "We work with amazing factories and have trimmed the procurement chain to automate processes," says Barrow. "Frames offer our customisation service, including those for children with special facial characteristics. It is my legacy to the NHS."

www.speccareservices.co.uk
www.exetereyewear.co.uk

CHAPTER 16

RECRUITMENT AND STAFFING

A HEALTHY APPROACH TO INCLUSIVITY

AS A NEW STRATEGIC PLAN ASSERTS, EQUALITY, DIVERSITY AND INCLUSION ARE VITAL COMPONENTS IN THE CULTIVATION OF A REPRESENTATIVE AND EFFECTIVE NATIONAL HEALTH SERVICE

"Through the ups and downs of history, the NHS has been there with us, adapting alongside us and our changing society," says Dr Navina Evans, Chief Workforce, Training and Education Officer at NHS England. "New technologies have been developed, and our understanding of care and the health and social care workforce has improved and evolved.

"This evolution has been essential to the success of the NHS and is key to ensuring its future. Our people are our greatest strength, and, to meet the demands of our population, we must have a workforce that is reflective of that population. We must ensure we are inclusive, so that our people can be themselves and bring their best selves to work."

A major tool in the development of such an inclusive culture for NHS staff is the Equality, Diversity and Inclusion (EDI) Improvement Plan – part of the 2023 published NHS Long Term Workforce Plan.

"The plan highlights why change is needed," says Evans of the new EDI initiative. "Data is available to show where we're currently falling short, including the underrepresentation of women at senior level, the gender pay gap, and the bullying and harassment disproportionally experienced by black and minority ethnic, LGBT+ and disabled staff."

The EDI Improvement Plan presents a framework of six high-impact actions to support positive change:

- Chief executives, chairs and board members must have specific and measurable EDI objectives to which they will be individually and collectively accountable.
- Embed fair and inclusive recruitment processes and talent management strategies that target under-representation and lack of diversity.
- Develop and implement an improvement plan to eliminate pay gaps.
- Develop and implement an improvement plan to address health inequalities within the workforce.
- Implement a comprehensive induction, onboarding and development programme for internationally recruited staff.
- Create an environment that eliminates the conditions in which bullying, discrimination, harassment and physical violence at work occur.

Addressing the need for inclusive leadership to help drive, and make visible, a representative NHS, Evans challenges senior staff such as herself to lead by example. "We need to ask ourselves: how can we set an example that others will follow? How can we build a culture that is truly inclusive and values diversity as our strength?" she

BELOW
NHS diversity takes centre stage at Portsmouth Pride in 2022

says. “For me, it’s about making this central to what we do; a non-negotiable, essential part of our business.

“It can be easy to put efforts to improve our culture on the back burner in these times of great pressure and challenge,” she continues, “but that is precisely when these efforts are most needed. The last few years of Covid-19 and recovery have both highlighted and exacerbated existing health inequalities, and as those responsible for the future of our health and social care workforce I believe we have the power to lead and influence genuine change.”

New approaches to learning are also critical if the service is to make healthcare a profession that is accessible to all. “We need to ensure that opportunities are available to people from a wide range of backgrounds to begin their careers in healthcare beyond the traditional methods of teaching and training.

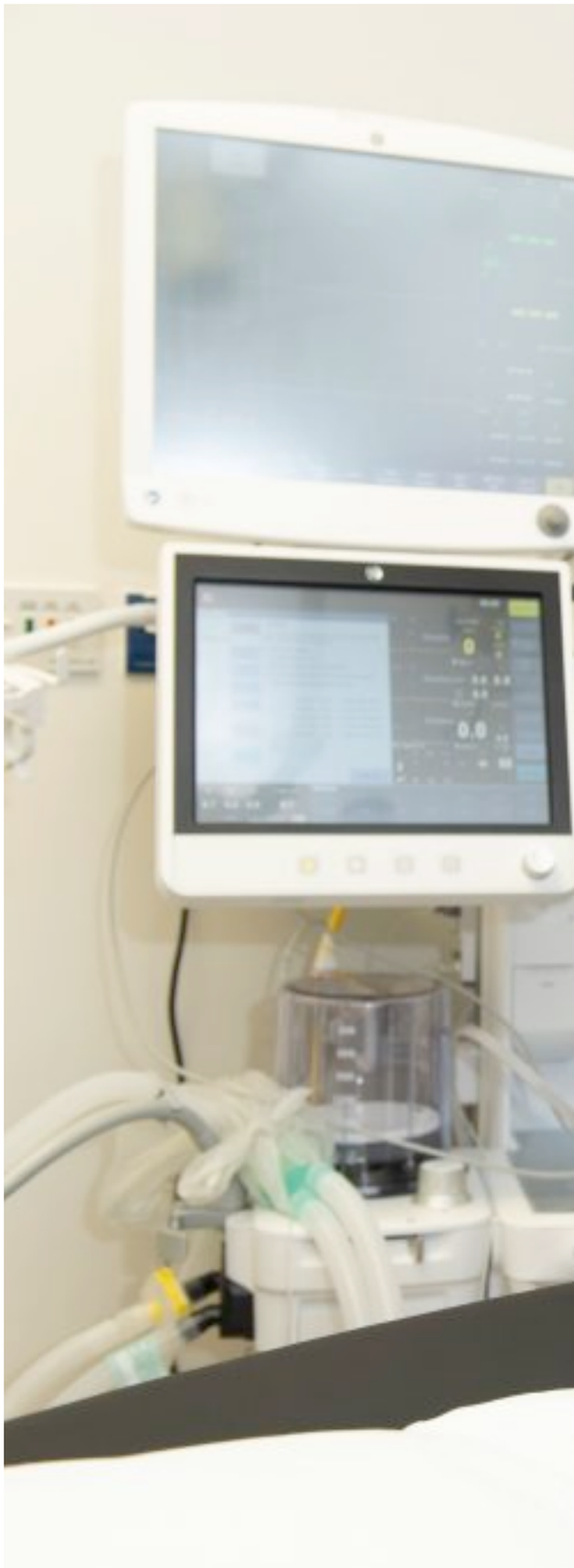
“The medical doctor degree apprenticeships are a great example of this,” she adds. “The apprenticeship aims to attract people from underrepresented groups into the profession and offers us the opportunity to grow our future medical workforce by attracting and recruiting from a wider pool of people in local communities. It also gives individuals, who for a multitude of reasons may be unable to attend university full time, a new route to train as a doctor.”

There is reason for optimism, but not for complacency, as Evans concludes. “It’s wonderful to see that we’ve currently got the most diverse workforce in the 75-year history of the NHS, but there is more to be done to make it fully equal and inclusive.”

ABOVE
A mural in east London celebrates the service’s international workforce

WISE WORDS

OET ASSESSES NOT JUST A HEALTHCARE PROFESSIONAL'S LANGUAGE – BUT THEIR ABILITY TO COMMUNICATE EFFECTIVELY IN A HEALTHCARE SETTING



The difference between speaking a language and being able to use it effectively in your workplace is subjective; the latter often means understanding a language's quirks and idiosyncrasies. Sujata Stead knows this distinction better than most. She is the CEO of Cambridge Boxhill Language Assessment (CBLA), the organisation that owns OET (Occupational English Test), the world's leading English language assessment for healthcare professionals who want to work in an English-speaking environment.

"It's not just about grammar, pronunciation or lexicon," says Stead. "OET is also about what we call clinical communicative abilities, which are the finer nuances of healthcare communication. For example, can you show empathy to patients and carers? Can you translate technical terms into lay language that patients and carers can understand? The subtleties that aren't always picked up by general or academic English tests."

Today, OET is the gold-standard English language assessment for healthcare professionals, recognised by healthcare and education organisations and government agencies worldwide, including the UK, Ireland, the US, Canada, Australia and New Zealand. OET is also recognised in predominantly non-English-speaking countries such as Spain and Ukraine.

But when it was conceived in the late 1980s, it was something of an outlier, created by Professor Tim McNamara from the University of Melbourne, who believed language tests at the time were missing the point. Why obsess over the minutiae of grammar, when what is most important is to be able to use language that is fitting for your work? McNamara collaborated with the healthcare sector to develop OET with this principle of functionality in mind.

OET covers 12 healthcare professions, including nursing, medicine, dentistry, pharmacy, podiatry, optometry and radiography. The test is divided into four sections, each grounded in the language skills required for effective communication in a healthcare setting: reading, writing, speaking and listening. The reading and listening sections are common to all 12 of the professions that OET tests and may

include listening to a simulation of a patient handover when nurses change shifts or reading a passage from a medical textbook, extracting only the relevant information. The speaking and writing sections are specific to the profession. For example, the writing section for OET Medicine may ask applicants to draft a patient referral or a transfer or discharge letter to another health professional using information provided in a set of case notes. The speaking section has long been known as the unique selling point of OET. "It is the part people love," says Stead. "It is all about doing a role play in the profession.

You could be given a role play card and told to lead a patient consultation in such a way as to achieve an objective. It is based on patient-centred communication, where effective communication between the healthcare professional and the patient or carer is key to a quality health outcome."

The increasing recognition of this was also noted in a 2013 University of Melbourne report by McNamara and others for OET. It states that "limited language proficiency is an obstacle to effective communication affecting quality of care".

The global popularity of OET reflects the test's focus on healthcare English, as well as its practical approach, and has dovetailed with the increased demand for overseas-trained healthcare professionals in many countries where OET is used, including the UK. "The gap between supply and demand is increasing in many countries, especially with nurses," explains Stead. "Our job is to support organisations through ethical recruitment. It's not about simply filling staffing shortages; it's about working with candidates, recruiters and employers to ensure we provide good education, language acquisition and test preparation programmes."

The Covid pandemic has sharpened OET's focus on bringing the test closer to candidates and ensuring it can be taken despite external disruptions. The test can be taken at an authorised test venue on paper or on a computer, in more than 60 countries. Alternatively, it can be taken at home on a computer using a system of secure remote proctoring in an additional 80 countries where there are no test venues. For healthcare systems around the world, the outcome is that there are more healthcare professionals available to fill vacant roles.

"OET is also about what we call clinical communicative abilities, which are the finer nuances of healthcare communication"

OET promotes the acquisition of language skills required for successful healthcare workplace communication, whether with patients, carers or peers. It is what OET founder McNamara called "positive washback". The term means healthcare professionals are developing the skills required for success in their career, rather than purely trying to achieve a grade. "If the test content is relevant to your ambition of going to work in an English-speaking environment, then preparing for a test like OET creates a greater degree of engagement," explains Stead. "And that leads to better preparation, which in turn means better language acquisition."

Stead's passion for the subject comes from her own personal journey as a migrant. Originally from India, she moved to the UK where she worked for the British Council before taking a job at Cambridge Assessment. She then moved to Australia as the founding CEO when Cambridge Assessment became the majority shareholder in OET. Her focus is on OET's continued support of global healthcare by promoting ethical recruitment and ensuring healthcare professionals have the language skills needed to deliver quality, safe care – whether working in an English-speaking environment at home or abroad.

Alongside this, Stead's goal is to make sure that healthcare professionals have the best possible chance of achieving their dreams and aspirations, through access to quality language learning, test preparation and testing.

"I moved countries in pursuit of my personal and professional goals," she says, "so I understand what drives migrant healthcare professionals and the importance of language skills for success at work in your adopted country."

www.oet.com

WORKING TOGETHER

THROUGH BUILDING STRONG PARTNERSHIPS, ACACIUM GROUP IS MEETING THE NHS'S RECRUITMENT CHALLENGE HEAD ON, WITH FULLY MANAGED, FLEXIBLE STAFFING

A motivated and well-trained workforce is essential to the success of the NHS. For more than 35 years, the UK's Acacium Group – a healthcare delivery partner – has provided highly trained staff and managed services through a suite of 25 specialist businesses. These companies use data, global insight, innovative systems and best-in-class technologies to provide staffing solutions across the NHS, from early-stage clinical research and preventative healthcare, through to hospital and community-based services.

By placing thousands of doctors, nurses, mental-health specialists, allied health professionals and social workers in the NHS each week, Acacium Group allows the healthcare provider to focus resources on delivering high-quality care. At the same time, it allows the NHS to maintain an empowered and effective workforce.

One of the businesses within Acacium Group is Bank Partners, which has worked in partnership with Barts Health NHS Trust, alongside other trusts, since 2014, and has achieved excellent outcomes. This fully managed, flexible staffing service has saved Barts Health NHS Trust an estimated £300 million in agency fees over eight years while improving recruitment, retention and rostering of the workforce.

"We enable the trust to have its own unique, dedicated contingent workforce," says Bank Partners. "This saves on agency fees and builds a loyal workforce who live and breathe the values and culture of Barts Health NHS Trust. This is different to other models, where workers are employed by the supplier and could be working across any of their clients from day to day. Our approach forges very deep relationships and produces excellent results in keeping patient safety a core priority."

"The flexible workforce is important to the trust for safety and quality," adds the Head of Temporary Staffing at Barts Health NHS Trust. "Working with this model, the trust can retain valuable talent that might have otherwise been lost without the facility for people to structure their lives flexibly. Also, by demonstrating how much we value their contribution to patient care, this translates into their own wellbeing and commitment to compassionate care."

The collaboration between Bank Partners and Barts Health NHS Trust has been such a success that Bank Partners now supports the trust with services other than staffing, integrating elements from Acacium Group's pool of expertise. It offers help with compliance, recruitment, shift booking, payroll and supply-chain management. As some of the services are exclusive to the trust, it means temporary and flexible workers get to know the processes, people and communities, developing stronger relationships with their peers.

This trusted relationship has opened the door to wider conversations with other Acacium Group businesses, which, says Barts Health NHS Trust's Head of Temporary Staffing, "helps us simplify supply chains and resolve problems that we could not have resolved otherwise. By partnering with selected businesses across Acacium Group, we have achieved more than the sum of both our parts in a unique relationship that continues to deliver and grow."

The support that Bank Partners provides to Barts, says the trust, is the perfect example of how public and independent sector expertise can complement each other. It achieves excellent care for patients, innovation in processes and systems, a great experience for the workforce and, ultimately, allows the health service to focus time and resources on delivering world-class patient care.

www.acaciumgroup.com

THE PERFECT MATCH

PROVIDING CHOICE AND TRANSPARENCY FOR EMPLOYEES AND STREAMLINED HIRING FOR EMPLOYERS, NOLEA HEALTH'S AI-DRIVEN RECRUITMENT PLATFORM IS BENEFITING THE HEALTHCARE ECOSYSTEM

Rethinking the modern workforce is the mantra of Nolea Health, a company founded to help solve the problem of staff shortages in healthcare. Using an innovative, AI-assisted recruitment platform, it aims to maximise the chances of finding the right healthcare professional for the right role and can drastically reduce time-to-hire by 60 per cent for the NHS and other healthcare providers. Having already proven the concept in mental health, Nolea Health is now utilising its technology to improve recruitment in other vital fields, such as primary care and allied healthcare.

"The current recruitment model is fragmented, matching candidates based solely on job title. We go beyond that. By providing a relevancy score for each candidate, our AI-driven technology offers rich data and insights to inform hiring decisions. Employers also benefit from a flat monthly subscription, unlimited candidate searches and hires, eliminating incentives for unsuitable placements while driving down recruitment costs," says Richie Dawes, CEO, who set up the company in 2021. "It's about more intelligent use of existing information and resources, ensuring candidates have complete transparency about salary and responsibilities from all the employers on our platform."

Amid ongoing workforce transformation, healthcare organisations are turning to skill-based models and rethinking their workforce approach. Dawes envisions leveraging the technology for a new internal talent marketplace, addressing workforce retention challenges and empowering the healthcare sector to retain valuable staff. This approach fosters a skills-based organisation, turning skills into a competitive advantage with visibility and upskilling insights. The internal talent marketplace will highlight potential, qualified talent to support internal mobility, and it will enable healthcare organisations to browse highly relevant candidates based on their skills data, aspirations, experience and potential to facilitate upskilling and growth. The aim is that the platform's comprehensive picture of workforce capabilities reduces recruiting costs and helps individuals reach their full potential.

Our mission is to "bridge the gap in healthcare, one connection at a time," says Dawes. "We're poised to revolutionise healthcare talent acquisition, internally and externally, fostering a robust, agile workforce."

www.noleahealth.com

RECRUITMENT REVOLUTION

THE STAFFSCANNER APP IS REIMAGINING RECRUITMENT AND QUALITY IN THE CARE SECTOR BY CONNECTING SHIFTS AND QUALIFIED PROFESSIONALS WITH TRANSPARENCY

"In any business, but particularly in care, you are only as good as your staff," says Reza Najafian, the founder of Staffscanner, who is speaking of shift-worker recruitment challenges in the care sector.

Najafian has seen the issues first-hand through his mother, a retired nurse, and then experienced them as a care-home operator himself. Agencies could be expensive, there was a lack of choice and transparency about workers, and not getting the same person consistently meant there was no continuity of care. Najafian heard similar complaints from other managers in the public and private sector, in his voluntary role as Executive Director of Scottish Care, a membership organisation. "I could see the frustration across the sector," he says.

So, in 2017, Najafian founded the Staffscanner app, a platform that directly connects nurses and care workers to shifts in their local area. The platform rigorously vets and verifies professionals, ensuring Staffscanner has their qualifications, references and criminal record checks. Upon successfully passing all mandatory fields, including training and an interview, their profile is passed to Staffscanner's compliance team for a final review before becoming active on the app, enabling them to view compatible jobs with detailed information on pay, conditions and specific service requirements.

"At the click of a button, workers can apply for that shift," says Najafian. There are more than 35,000 professionals on the platform across the UK, including those with specialist skills. Clients set a pay rate, after being given a typical range for their area, and staff are paid within 48 hours of a shift.

Clients have information on the workers who apply for shifts, and a rating tool allows for feedback. If an employee is rated poorly, an investigation is triggered, which may lead to them being excluded from the app. For users who prefer to communicate by email or telephone, there is a fully managed service that can assist 24 hours a day.

"We've had exceptional feedback," says Najafian. Vital shifts have been covered in seconds, and some nurses and care workers who were struggling with payday loans no longer do. "Staff are paid more and the care service saves money, which is better for the public purse. Staffscanner is helping to address shortages and deliver better care."

www.staffscanner.co.uk

STAFF OF LIFE

A LIFE-CHANGING EXPERIENCE AS A CHILD WAS THE SPARK FOR THREE ENTREPRENEURS TO SET UP RECRUITMENT COMPANY ZENTAR HEALTHCARE

When Fahim Modak was just 12, his life changed forever when his father fell ill. For the next two years, he worked alongside the care team until his father passed away. From this tragedy came a hunger to improve healthcare for others, but also the formation of the bond between Modak and Zentar Healthcare's other co-founders, Deepak Kapoor and Akshay Kapoor, who formed the company in 2012.

"My business partners, who are brothers, also lost their father when they were young. For all three of us that experience was formative and made us want to be part of the healthcare system," says Modak. "Our first client was one of the most prestigious private hospitals in London. We are now one of the leading providers of staff to the private sector and work with some of the biggest NHS trusts in the country. What makes us different is that we tell all our staff, from healthcare professionals to those working in finance, administration and compliance, that what they do will always have an impact on patients – even if they might not see it. We genuinely believe patient care is paramount."

Zentar Healthcare is a recruitment company that sources professionals to provide expert and individualised care for private hospitals, while also working with London's largest NHS trusts. It operates a VIP management service, too, supporting patient cases from overseas for treatment via private clinics or hospitals in the UK, or private wings within the NHS.

The candidates bring experience from across the world and best practices from many health systems. In addition, says Modak, "We have covered more than 92,000 assignments for the NHS, and generated £20 million of revenue for different NHS trusts through the private patients we have brought into the NHS who trust us in delivering world-class care." Indeed, Zentar is like "a boutique provider, supporting the transfer of skills from the private to the public sector".

For its healthcare professionals, Zentar provides training, access to free counselling and financial advice, while ensuring that placements match their skills. In return, hospitals and trusts benefit from motivated and highly trained staff, with Zentar achieving scores of 100 per cent in its recent audits.

For the founders, Zentar is just the beginning, explains Modak. "We want to work more closely with NHS trusts and the health department, using our knowledge and experience to help more patients."

www.zentar.co.uk

FINDING THE RIGHT CARE

RIGHT RECRUITMENT FINDS CARERS FOR DOMESTIC HOMES, AND PRIVATE OR NATIONAL HEALTH SETTINGS, TAILORING SUPPORT TO AN INDIVIDUAL'S CONDITION

As people age, or if they become ill, they generally prefer to stay at home. People are happier there, often living longer and enjoying the familiarity and semi-independence it provides. To enable this to happen, Right Recruitment makes it easy for individuals to locate a carer.

This London-based company is a care provider that specialises in matching clients and their families with the best experienced carer for their needs. Alongside offering reliable and professional care for individuals, it also supplies staff for the NHS, private hospitals and care homes.

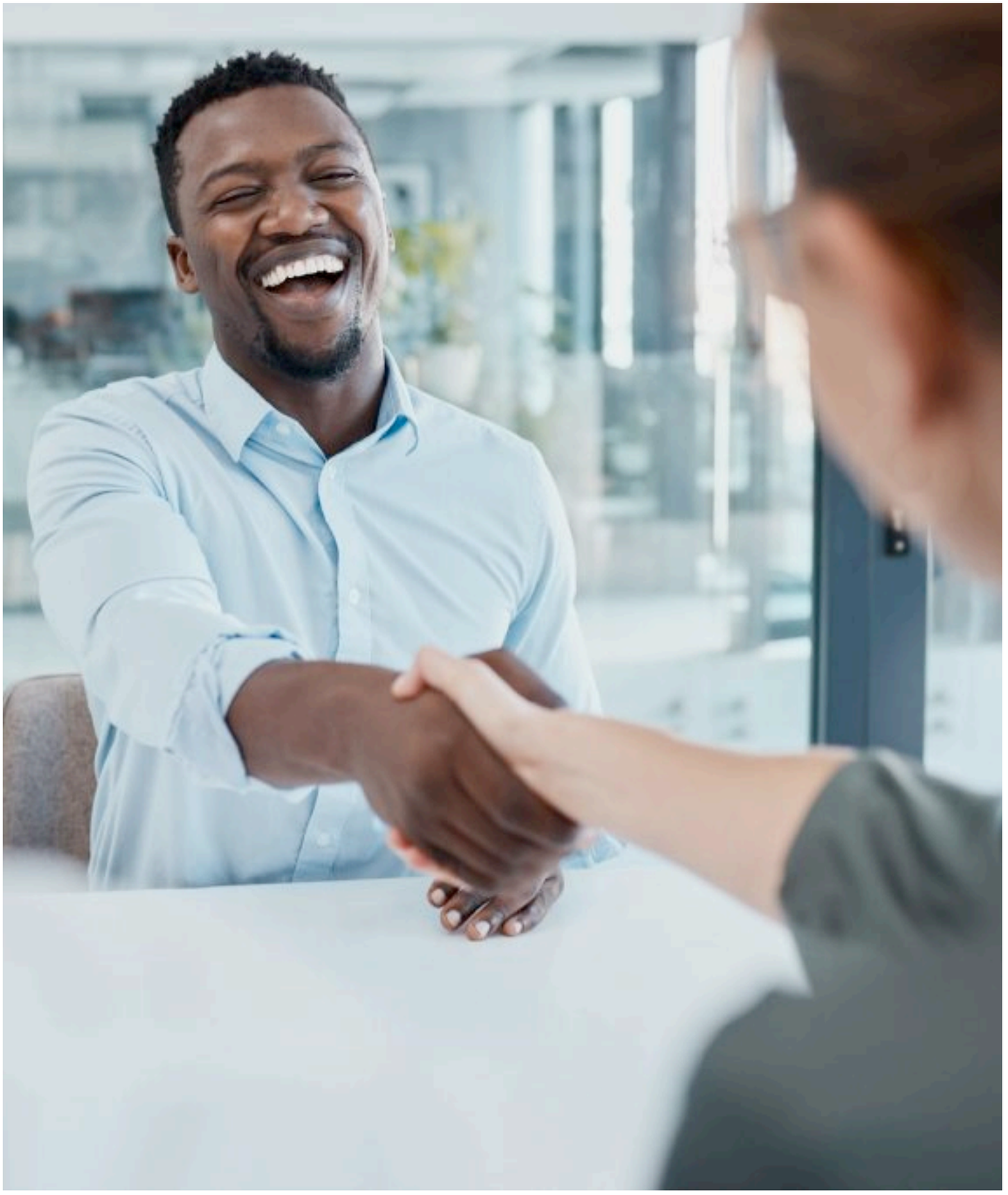
For peace of mind, all the home carers employed by Right Recruitment have an enhanced DBS check, according to Manager Otilia Madawo. As a care provider, it is also fully regulated by the Care Quality Commission (CQC), which gives clients a higher level of protection and assurance, knowing that they are receiving help from a professional team.

Right Recruitment provides tailor-made care packages, from people who seek full-time, long-term live-in care, to those who only require a helping hand for a few hours each week. Whatever the situation, it finds solutions that allow clients to stay in their home, surrounded by the things they know and love, close to friends and family.

With an understanding that care needs to suit the individual in question, the company has a range of flexible care options, tailored to different conditions. These include 24-hour live-in care, complex live-in care, companionship care, convalescent care following surgery or a hospital stay, emergency home care, overnight care, respite care and palliative care. Live-in carers can assist with a range of tasks, and many have specialist training to deal with challenging conditions such as dementia or Parkinson's.

For the qualified care workers themselves, Right Recruitment offers attractive career opportunities, spanning permanent nursing jobs, healthcare assistant employment and non-clinical work. Qualified staff are also hired for agency nursing jobs for clients nationally, both in the private sector and the NHS, across full-time, part-time and ad-hoc shifts. Indeed, the company works with some of the country's most reputable healthcare organisations, providing services that can encompass everything from emergency cover to full-time appointments.

www.rightrecruitmentltd.com



FORCE FOR GOOD

ADMIRAL PROFESSIONALS FILLS ROLES FOR THE HEALTH AND CARE SECTORS, WITH A SPECIAL EMPHASIS ON WORKFORCE WELLBEING

When it comes to filling vacancies in the NHS, both temporary and permanent, Admiral Professionals can help provide the solution, allowing the service to continue to operate. It has considerable expertise at recruiting the wide range of healthcare professionals, all of whom receive training and support, while benefiting from the possibility of increased flexibility in their working life and mental-health and wellbeing provision.

The service offered by Admiral Professionals allows NHS trusts, hospitals and GP surgeries, for example, to fill gaps in a workforce that includes nurses, operating department practitioners, allied health professionals, social workers, support workers and carers, domiciliary carers, live-in carers, psychotherapists, compassionate learning disability support workers, respite carers and palliative carers. This is without impacting the quality of treatment afforded to patients. Admiral Professionals uses its expertise and judgment to place the right individual with the right skills and training into the perfect occupation, confident they will hit the ground running. That is of benefit both to the NHS and to the patient, as they can be sure of exceptional healthcare.

Healthcare professionals themselves have the chance to work in a learning environment alongside fellow professionals. The recruitment team help an individual grow their experience and learning skills, allowing them to explore career opportunities in a competitive environment to the benefit of the wider healthcare world. The company's broad international connections also mean there is support for those wanting roles overseas.

In addition, Admiral Professionals delivers home support services to young adults seeking emotional and physical refuge. Youth and support workers are assigned based on the individual's choice and specific needs, and these professionals work on an individual's emotions to strengthen, empower and help build resilience in their life through mental wellbeing. Ultimately, Admiral Professionals allows young people to sharpen their lives and self-esteem, helping them to learn to cope and eventually overcome everyday challenges.

As a company that works in the healthcare sector, Admiral Professionals understands the importance of maintaining and improving the physical and mental wellbeing of employees. Through its dedicated Employee Assistance Programme, it promotes physical health, for instance, through gym membership, while weight management and information about nutrition is available.

Admiral Professional's first-class mental-health programme focuses on the general welfare of employees, with an understanding that mental health is fundamental to wellbeing and work efficiency. In support of mental health, employees are encouraged to take part in physical exercise, yoga and mindfulness activities, which can be accessed online or face to face.

The company can also offer support for both employees and members of their families who are over 16 years of age and who have emotional issues that require counselling. The core initiative is to help employees deal with personal issues, whether they are physical or mental, financial, marital, a personal crisis, or societal trauma. The aim is to improve productivity, with the goal of strengthening workforce management and wellbeing.

At the heart of Admiral Professionals is the provision of quality staffing services to all public and private organisations in the UK. This is part of the company's ambition to build a healthier society and to help all individuals enjoy independent living.

www.admiralprofessionals.co.uk

INTERNATIONAL ROLL CALL

USING ITS UNIQUE INTERNATIONAL LINKS, CALL PALL RECRUITS STAFF FROM NON-RED-LIST COUNTRIES TO HELP FILL VACANCIES IN UK HEALTHCARE

The staffing challenges facing the NHS over the next decade will require innovative solutions. In 2023, the estimate was 120,000 unfilled vacancies, a number set to rise unless the trends are rapidly reversed. One such solution to this ongoing problem has been developed by Call Pall, a healthcare recruitment agency. Call Pall focuses on hiring healthcare professionals who are from overseas, helping them relocate to the UK so they can join the international team already in place at the NHS.

Founded by Kondwani Mututa, the company's Director, in 2020, Call Pall has a unique solution to the service's staffing shortages. The company uses its strong links to the international market to source the highest-quality candidates to fill vacancies in the UK healthcare sector. It is Call Pall's mission to work in tandem with the UK government's Cross-Whitehall International Recruitment Steering Group, chaired by the Department of Health and Social Care, to increase the ratio of healthcare professionals to patients, with the result that it leads to better patient satisfaction and outcomes. In accordance with Whitehall's recommendations, Call Pall only recruits from countries approved by the public health committee, and is committed to providing impartial and professional advice.

As the company explains, healthcare professionals recruited by Call Pall must fit certain criteria, such as they must not come from countries that are on the so-called "red list" – the term for developing countries with a density of doctors, nurses and midwives that is below an index of 50 (the global median is 48.6 per 10,000 population). From care workers to enrolled or registered nurses, to allied healthcare professionals, staff are required to have the relevant qualifications, such as a degree or diploma, as well as a minimum of one to two years' experience. Call Pall then supports healthcare professionals with some of the more challenging aspects of the relocation procedure, such as opening bank accounts, finding accommodation and registering with GPs and dentists. With the help of Call Pall, candidates can serve the NHS while enjoying the prestige and responsibility that comes from working in one of the most recognised and respected healthcare systems in the world.

Around the time of the NHS's 75th anniversary, in June 2023, the NHS Long Term Workforce Plan set out some of the challenges that the health system is facing over the coming years. It reported that due to an ageing population, inaction in the face of demographic change would leave the service with a shortfall of between 260,000 and 360,000 staff by 2036–37. This would impact patient experience, service capacity and productivity, and constrain the ability of the NHS to transform the way it looks after patients. The Workforce Plan has set out ambitious targets for the training and retention of staff, but while its recommendations are being put in place, the NHS needs to find staff who are able to maintain the current service.

The fact that the UK urgently needs to recruit healthcare workers for all sectors due to a national shortage is at the core of Call Pall, which is especially seeking those who specialise in the areas of enablement care, domestic support, nursing, dementia care and personal care. The company has permanent jobs available in both nursing home and hospital environments, dependent on skill sets and experience. Together with its specialists who support with the practical side of relocation, this makes Call Pall the bridge between healthcare providers and international candidates.

www.callpallltd.co.uk

APPENDICES


NHS

CONTRIBUTORS

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ANGELA WHITECROSS is Research Associate at the University of Manchester. She has more than 20 years' experience of working in heritage, community and academic settings and is passionate about participatory research and co-production methods. Since 2017, she has been Project Manager of the NHS at 70 and NHS Voices of Covid-19 projects.

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ABOUT THE HISTORY OF PARLIAMENT

The History of Parliament is a research project creating a comprehensive account of parliamentary politics in England, then Britain, from their origins in the 13th century. Unparalleled in the comprehensiveness of its treament, the History of Parliament is one of the most ambitious, authoritative and well-researched projects in British history. The History, which was originally conceived in the 1920s and has worked continuously since 1951, consists of detailed studies of elections and electoral politics in each constituency, and of closely researched accounts of the lives of everyone who was elected to Parliament, together with surveys drawing out the themes and discoveries of the research and adding information on the operation of Parliament as an institution. The History is also building up a collection of oral history interviews with former Members of Parliament, which are deposited in the British Library for all to access and use. For more details about the History of Parliament, and to view over 20,000 articles on parliamentarians and constituencies, visit www.historyofparliament.org.

ABOUT THE NHS AT 70 PROJECT

In 2017, the NHS at 70 project began to collect stories from patients, staff and communities across the UK to create the first oral history of the National Health Service (NHS) with support from the National Lottery Heritage Fund. Involving volunteers from all walks of life, the project worked in ten localities across the UK including Scotland, Northern Ireland and Wales. By March 2020, more than 150 volunteers had been trained in oral history methods and over 800 interviews had been gathered with people aged from 18 to over 100 years of age. With the onset of Covid-19 the project rapidly refocused to capture the unfolding of the pandemic and its effects on our lives and communities. In July 2020, it won support from the UKRI Covid-19 Urgency Call through the Arts and Humanities Research Council to work in partnership with the British Library to create a national collection of Covid-19 personal testimonies through the NHS Voices of Covid-19 project. Together the projects have created the oral history collection Voices of Our National Health Service, which is deposited at the British Library as a public resource for use now and in the future.

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