FUTURE OF HEALTHCARE

Staying at home can have significant medical benefits for the elderly

The aging population, in particular those with cognitive impairments, could delay age-related symptoms by staying at home with pets and loved-ones within familar surroundings.

As and when ill-health or lack of independence hits, many families feel their only option is to move their loved-one into a residential care home.

For so many, this is met with resistance, upset, a loss of identity and in some cases, an advancement of age-related health problems.

In actual fact, our aging population can stay at home, surrounded by the things they love thanks to companies such as Bluebird Care.

Bluebird Care, a leading UK provider of care and support at home, prides itself on keeping people happy and safe in their own homes. They can even supplement NHS services with their new Health & Wellbeing service.

Their compassionate, cheery and highly-trained care team ensure each and every customer is listened to, cared for, and continues to be the person they were 'a few years ago' whilst also working alongside medical teams to ensure individual needs are met.

Focus on staff training

The Bluebird Care Training Academy is above and beyond industry standards.

Care teams are trained to provide all levels of care from general care through to specialist services such as, health & wellbeing checks, infection control and caring for people with cognitive impairment.

The future of elderly care is very much home-based which can improve mental health.

If someone is just starting out on their career in care, they undergo a 12 week training programme to ensure they are completely safe, compliant and confident to provide support to their customers on all levels of care and companionship.

With an ethos of employee development and career progression, Bluebird Care's dedication to employee support and ongoing training is key to their staff retention.

Well-trained and supported staff deliver outstanding care and companionship for their customers, enabling them to live the lives they love.

Employee and customer focused, Bluebird Care is full of extraordinary people supporting communities to live their life, their way!

FUTURE OF HEALTHCARE

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INTERVIEW

It's time we unlocked the power of health data

Renowned surgeon and former health minister, **Professor Lord Ara Darzi**, describes the potential that patient data has to transform healthcare as we know it

Nick Easen

Every hour, of every day, incredible digital innovations are transforming industries around the globe, fuelled by new technology, data and now artificial intelligence. But when it comes to change, not all industries are created equal. The healthcare sector is lagging behind. Professor Lord Ara Darzi is on a mission to change this. He thinks the time is now.

"Whether it's entertainment, finance or travel, the digital transformation has made astounding changes to many aspects of our lives. But in health we haven't moved on at the same speed. This needs to change," says Lord Darzi, former health minister and co-director of Imperial College London's Institute of Global Health Innovation (IGHI).

"We should be proud of our incredible history of innovation in the UK. If we look at the last century, roughly 40 per cent of the biggest discoveries in medicine and healthcare globally have come from this country. This is an extremely creative nation. But we need to ignite more of it and foster an environment in which it will flourish. Right now, data and digital health are key to this."

Lord Darzi knows a thing or two about healthcare innovation. He's renowned globally for pioneering robotic techniques in medical operations and has published more than 1,200 peer-reviewed research papers to date. He continues to work actively as a surgeon, specialising in minimally invasive surgery, and believes using patient data could unleash a new era.

"Right now we're living in probably the most exciting time in my career. Why is it different now? Historically people were trained and educated in verticals; you were a biologist, an engineer, computer scientist or chemist. What data and analytics has done is converge all of these knowledge bases and brought them together. It's facilitating amazing discoveries," he says.

"Data already plays a monumental part in the everyday delivery of healthcare. Without it, it would be like switching the electricity off in a hospital. That's how dependent we are. Look at the coronavirus epidemic. The utilisation of data is critical to defining its spread, the global risk, finding patient zero and those who are exposed. Data can be transformational in terms of public health and here in the UK we have a unique asset to work with."

Lord Ara Darzi is calling on the government to make big investments in data

Imperial

The NHS is sitting on one of the most remarkable datasets in human existence; fairly standardised, detailed and historical, it accounts for the records of 65 million people. A recent report from the IGHI said the UK is the best placed large economy in the world to use its patient data for transformative health, scientific and economic impact.

"It is the most comprehensive longitudinal patient-level dataset of any health system globally. We should be proud of the data. But we haven't utilised it to the maximum benefit of patients and the taxpayer. If we don't utilise it right now, there are countries like China or the United States with much bigger populations that will catch up very quickly," says Lord Darzi.

"We now need a national conversation on this issue. Firstly, we need to engage the public fully in communicating the value that could be created utilising NHS data. We also need to do a better job engaging with citizens on crucial issues such as privacy, ethics and security."

Data-driven breakthroughs champion this cause. A computer algorithm developed by an international team, including researchers from Google Health and Imperial College London, is now as effective as human radiologists in spotting breast cancer from x-ray images. Artificial intelligence (AI) worked on de-identified data from 29,000 women.

Moorfields Eye Hospital in London has used deep-learning algorithms to build software that can identify dozens of eye diseases from scans, learning from data. Recently, powerful new antibiotics were discovered using machine-learning at Massachusetts Institute of Technology. These could be used to fight antimicrobial resistance.

"There are reasonable fears among the public when it comes to data use. The issue bothers me, it bothers us all; I too am a patient, we're all patients. Yet we can anonymise data now, we can de-identify it. Patients must also feel they're in charge of their own data. Above all, what we all want from its use is better health outcomes," says Lord Darzi.

"We have to ask how data will benefit the public in terms of disease prevention, predicting disease, better quality of care and improving the efficiency of healthcare delivery. Anything that creates health value also has economic value. We alone cannot do this without partnerships."

To maximise the potential of NHS data, the UK government will need to make substantial upfront investments estimated to be billions of pounds to upgrade its digital infrastructure, both hardware and software, so systems talk to one another, not forgetting the talent to run these operations.

"I hope in this year's government spending review we're going to see a big investment in data. We need to attract data scientists and engineers to work on it. This has happened in banking and financial services, why not healthcare? Moving on with a regulatory framework will also be crucial," says Lord Darzi.

"If there's economic value, then we have to figure out what partnership model works in the best interest to UK plc. It could be sharing the actual profit. Let's not forget it could also create many new jobs. I would like more small and medium-sized enterprises involved with health data, working in partnership with the NHS. There's also a huge amount of potential for testbeds and sandboxes. The return on the investment will be huge if we can get this right."

It is palpable that Lord Darzi wants change and digital health, powered by data, is key to this. Then again he's seen a lot of changes in the last four decades practising medicine.

"Why do I get up in the morning? It's to do something better for the patient I am seeing. I've seen remarkable innovation in medicine since I left medical school. That's what keeps me happy; innovation and quality," he says.

94% of healthcare executives report that the pace of innovation in their organisation has accelerated over the past three years due to emerging technologies

Accenture 2019

88% of adults in England said they would be willing to share information from their wearable or mobile devices with their doctors

75% are confident their data privacy rights are respected by the NHS

ComRes 2018

EMPATHY

Putting doctors in patients' shoes

Clinical staff are being encouraged to experience their patients' lives, but does improved empathy really lead to better health outcomes?

Natalie Healey

Actors in obesity suits portrayed type-2 diabetes patients to teach German medical students about weight bias. The role-playing exercise, detailed in the *BMJ Open* medical journal, was designed to prompt future healthcare professionals to examine their prejudices.

Intrigued, Dr Zoe Williams, resident GP on *This Morning*, tried out the five-stone ensemble on the ITV programme. Afterwards, she said wearing the suit had given her a better understanding of some of the difficulties obese patients face.

They say you shouldn't judge someone until you've walked a mile in their shoes. As Williams discovered, that distance feels an awful lot longer when you're carrying 30 extra kilos. But are such initiatives, designed to increase empathy in patient care, the key to better treatment?

Simulation suits may sound controversial, but Danielle Holmes, consultant in patient handling and founder of DFH Ergonomics, finds them valuable. She trains healthcare professionals how to move patients with mobility problems safely to reduce the risk of injury for both parties. She uses ageing suits developed by the University of Brunel designed to induce the pain, fatigue and sensory impairment associated with later life.

"They simulate the poverty of movement as you age. It helps you understand why some elderly people can't get out of chairs easily, which enables healthcare professionals to make better decisions when they're with patients," says Holmes.

She also gets her trainees to wear obesity suits, like the one Williams tried, to experience how extra weight restricts movement and comfort. And everyone is encouraged to test out the hoists and motorised beds their patients will be using. "It's very much about knowing what patients are going to feel, so you can recommend equipment that will be most comfortable," she explains.

A US study of more than two thousand doctors found weight stigma is pervasive among clinicians. This can make it harder for obese people to receive good treatment compared to those with a lower body mass index.

Chloë Fitzgerald, researcher at the University of Geneva, says it's an example of implicit bias, where we make unconscious associations about a certain group.

"When I think of salt, I automatically think of pepper. When we think of someone who's obese, we might associate them with being lazy or weak willed," she explains, even if these associations are not grounded in truth. Often these involuntary biases don't even align with our perceived beliefs.

It's not only obese patients who experience poor care. Research has shown someone's race, age or gender can influence the standard of medical treatment received. One study found women with acute pain are less likely to be given opioid painkillers compared to men. While black women in the UK are five times more likely to die from complications in pregnancy and childbirth than white women, according to the UK Confidential Enquiry into Maternal Deaths.

Implicit bias can be measured using a tool called the implicit association test, but it remains a hard phenomenon to tackle, says Fitzgerald. A focus on empathy in patient care could help though. Multiple studies have found patients of doctors who are more empathetic have better outcomes and fewer complications.

"Sometimes people see empathy as pitying someone. But empathy is a broader feeling about being able to understand that person's perspective without giving up your ability to maintain some professional detachment as well," explains Suzanne Wood, improvement fellow at the Health Foundation.

Professor Sir Denis Pereira Gray, former president of the Royal College of General Practitioners, believes anything that can be done to illuminate empathy in patient care is worth trying.

"What I teach is that the good GP goes to great trouble to try to understand the context of his or her patient's life. And that they will be better doctors and shape their advice better if they can understand the patient is a person, not just someone who's carrying a particular disease," he says.

While there clearly isn't the equivalent of a bariatric suit for every vulnerable patient group, Sir Denis feels strongly that continuity of care can increase empathy. This is when a patient consistently sees the same healthcare professional so they build up a relationship. Continuity is associated with increased patient satisfaction and greater adherence to medical advice.

"It's much easier to have empathy for a patient you've got to know than with a stranger," he says. "And if patients think the doctor has understood them, they are more likely to take their advice."

But the patient-doctor relationship goes both ways. And a major obstacle to empathy in patient care is burnout. In 2018, the Society of Occupational Medicine estimated that up to 40 per cent of UK doctors are experiencing work-related stress, with GPs reported to be most at risk. There are also severe staff shortages across the NHS.

"If a doctor has too many patients to see and is just swamped, I don't think they can be empathic when they're forced to work like a conveyor belt to get through," says Sir Denis.

In 2016, the Health Foundation developed the immersive exhibition *A Mile in My Shoes*, a series of audio stories from people working in medicine and social care, to help the public better understand the pressures healthcare workers are experiencing. That's not to say Wood thinks the emphasis on empathy in patient care is misplaced. A person-centred approach has never been more important given the challenges in the health service, she says, and it's crucial this message is infused throughout medical education.

"Empathy shouldn't be seen as an extra thing a medical student has to learn, but a fundamental part of what being a doctor is," Wood concludes.

WEIGHT BIAS PREVALENCE

Study of 2,400 adult women in the United States about their experiences of weight bias

69%

reported that doctors were a source of weight bias

52%

said they had been stigmatised by a doctor on multiple occasions

Obesity Action Coalition 2020

> **Doctors will shape their advice better if they can understand the patient is a person, not just someone who's carrying a disease**

How weight bias affects treatment

A study from 2001 in Houston, Texas examined how physicians treated patients of different weights, who arrived at hospital presenting with a migraine headache. Using a standard medical procedure form, the physicians were asked to indicate how long they would spend with each patient, and which medical tests and procedures they would conduct. While they prescribed more tests for the heavier patients, the length of time they were prepared to spend with them in consultations was significantly lower.

28%

less time physicians were prepared to spend with obese patients than those who were evaluated as normal weight

Hebl MR/Xu J, *International Journal of Obesity and Metabolic Disorders* 2001

Community-centric healthcare in Japan: a model

A local approach is empowering patients to self-manage their health, says **Adrian Waller**, general manager, medical systems, at Fujifilm UK

It is widely accepted that early diagnosis saves lives and significantly reduces the financial burden of disease, wherever you are in the world.

This is a key priority for the NHS, social care and the government, but with a health system historically focused on treatment, how can the NHS realise the real potential of early detection?

The Japanese health system has taken health services out of hospitals and into communities, and has made regular health checks the foundation of everything it does.

Annual health checks empower patients to monitor their own health routinely by offering preventative services, including diagnostic point-of-care testing and screening, in community health centres and mobile facilities.

As we strive to continue improving patient outcomes in both countries, Fujifilm believes this diagnostic- and community-led culture offers important lessons for the NHS to consider.

How community-centric healthcare works in Japan

Japan's move towards a community-based integrated care system was in part inspired by the small, rural town of Mitsugi. In 1984, the town opened a local health management centre, and in 1997 the community care department of the municipal government was moved to this centre, so public health nurses could provide preventive care such as health check-ups directly within the local community.

Since then, community-centric healthcare practices have spread across Japan, empowering local health centres and making diagnostic services more accessible to patients.

The Japanese government has embraced these practices; municipal governments now provide health checks for their residents, including several which are legally required, at the local level.

According to the Organisation for Economic Co-operation and Development (OECD), Japan now has arguably the most extensive range of health check-ups and screenings of all OECD countries.

While the exact nature of annual health checks varies in different Japanese localities, a typical check entails a low-dose chest x-ray, urine test, girth, height and weight measurements, blood pressure check and various blood tests.

Attending annual health checks at local screening centres or in mobile vans has become an ingrained feature of Japanese society and helps to keep patients out of hospital.

The UK can learn from this model, which truly prioritises early diagnosis, delivering a culture of local-level prevention that reduces unnecessary hospital admissions and saves resources; a key feature of the NHS *Long-Term Plan*.

Catching cancer early: how regular screenings can save lives

Regular screening attendance greatly improves the opportunity to detect early signs of disease, which significantly impacts patient outcomes. For example, Japan has one of the highest global rates of stomach cancer; as a result, endoscopies are included as part of patients' standard annual health checks from the age of 40.

Japan's ministry of health, labour and welfare also recommends that breast cancer screening takes place every two years for women aged 40 and over, a lower starting age than many comparator countries.

Early detection has helped Japan achieve the third-lowest mortality rate for breast cancer among OECD countries. More broadly, the five-year survival rate for cancer in Japan is 66.4 per cent.

At the other end of the spectrum, the UK is among the top-ten OECD countries with the highest breast cancer mortality rates, and the UK's five-year survival rate for cancer overall sits at just 50 per cent.

Japan's approach to prevention and diagnosis means that cancer screening is an engrained part of society. By contrast, the UK's system sees below-target levels of screening uptake, including in breast, cervical and bowel cancer.

As Sir Mike Richards highlighted in his recent review into adult cancer screening in England, a central reason for low uptake of screening is the accessibility and ease of screening appointments.

There is clearly an opportunity for the NHS to learn from the Japanese system and challenge the status quo of hospital-centric services.

Opening the door to mobile screening technologies

At Fujifilm, we know that a successful community-based prevention model must be supported by the right technology. We will never stop developing innovations to help health services diagnose disease earlier, applying our heritage and expertise from the world of photography to create new diagnostic technologies for cancer screening to blood chemistry analysers that are more targeted at screening services which can be taken closer to the community.

Point-of-care technology has become an essential tool in Japan's community screening model and has the potential to transform the ability of local healthcare services in the UK to ease capacity for secondary providers and deliver greater preventative care.

Our mobile x-ray technology, such as the FDR nano with integrated artificial intelligence (AI), can also support the NHS to deliver faster, more efficient cancer screening in local communities or hard-to-reach areas. Weighing only 90kg, the FDR nano is an exciting example of a highly mobile lung cancer screening system that combines high-image quality, low-dose x-ray, and real-life triage and high levels of diagnostic accuracy through integration with AI technology.

Utilising these types of existing technologies in a community setting has the potential for the NHS to ease pressures on its workforce and save money, without sacrificing diagnostic accuracy.

The Japanese system has embraced innovative mobile and point-of-care technology to deliver a unique level of local preventative care. To challenge our hospital-centric status quo, the NHS should learn from this approach and empower local providers to deliver rapid diagnosis and support prevention.

Future of early detection

Adopting features of the Japanese model of community health could greatly improve early diagnosis and outcomes for patients in the UK. Moving towards a system which places greater emphasis on prevention, utilises point-of-care technologies and mobile screening services, and delivers truly local services, can all contribute to speeding up detection of disease and save NHS resources.

As the NHS looks for ways to boost the prevention agenda and deliver earlier diagnosis, it would do well to consider the Japanese way of working, for the benefit of all patients.

84.6 years
Life expectancy for people in Japan, the highest in the world

66.4%
Five-year survival rate for cancer in Japan

50%
Five-year survival rate for cancer in the UK

> **There is clearly an opportunity for the NHS to learn from the Japanese system and challenge the status quo**

For more information please visit fujifilm.com/neverstop

FUJIFILM
Value from Innovation

Homeward bound: moving systemic anti-cancer therapy out of the hospital

Systemic anti-cancer therapy vastly improves outcomes for many cancer patients, but frequent hospital trips can be exhausting and stressful. Could having treatment at home be the answer?

Cancer treatment has come a long way since mustard gas was first tried in the 1940s to treat lymphoma patients. Better treatments have emerged that have changed the outlook for those with the disease. Mortality rates have significantly decreased and are projected to fall a further 15 per cent between 2014 and 2035, according to Cancer Research UK.

But although modern-day hospital-administered systemic anti-cancer therapy (SACT) is a far cry from the primitive therapeutic agents spawned by deadly weapons, it can still be a stressful, time-consuming and exhausting experience for patients and their families.

James Casey from Huddersfield was devastated when, four years ago, he received a diagnosis of peritoneal mesothelioma, a form of cancer caused by asbestos, which affects the lining of the abdomen. As there are few doctors who specialise in this condition, Mr Casey was placed under the care of a consultant, based more than 100 miles away in Leicester. For greater comfort and convenience, the consultant recommended treatment outside hospital.

"I was so poorly in the early days after diagnosis that I might have refused to go to the hospital because I was feeling so ill. It made a massive difference for nurses to come to my home and carry out the treatment. And it meant my friends and family didn't have to take time out to visit me in hospital," recalls Mr Casey, whose clinical home care is arranged by Healthcare at Home, the UK's leading provider of clinical services given outside of hospital. "Without a doubt, it is a fabulous option for patients."

"The truth is that hospitals can be scary places sometimes," says Professor Sir Jonathan Asbridge, Healthcare at Home's chief clinical officer. Around 6,000 patients are treated for cancer at any one time by the company and 450 SACT regimens are supported.

Many of the most commonly diagnosed cancers have a ten-year survival rate of 50 per cent or more, according to Cancer Research UK, but the treatment journey can still induce complex emotions for the patient, including a feeling of losing control of their life.

"One breast cancer patient in her late-30s recently told me: 'I haven't missed a day of being here for when my kids come home from school'," says Sir Jonathan. "She stays at home rather than driving 60 miles to have SACT in the hospital."

At-home cancer treatment needs to be as unobtrusive as possible, he explains. It should fit around the person's life.

"You cannot underestimate the additional convenience treatment in the home can bring to the patient. Having SACT in a hospital involves travel, finding a parking space and, when you arrive, having bloods taken and waiting for the medication to be compounded. Often this can lead to a patient attending a hospital for the whole day for treatment that may only take an hour or two," says Sir Jonathan.

But Healthcare at Home clinicians visit the patient two days before the medication is given to carry out the necessary blood tests and patient assessments, and conduct a clinical pre-assessment. This ensures on the day of medication the patient isn't waiting around. "We bring the cancer therapy straight to you. All the patient does is have the treatment for that period of time and then they can get on with their life," he says.

Sir Jonathan, who is also president of the European Society for Person-Centred Healthcare, says patient choice must be the future of clinical care. There's a growing body of evidence supporting clinical home care for various medical conditions.

One study found care at home was associated with a 38 per cent reduction in mortality at six months compared with hospital treatment. And home treatment may also reduce the risk of a cancer patient with a compromised immune system contracting an infection.

As well as good clinical outcomes, there are financial benefits for medical insurers and private patients who elect to self-pay, as some cancer medications are VAT exempt when administered at home.

Some of Healthcare at Home's other services, such as infusion care, provide advantages for the NHS too, as by enabling discharge as soon as patients are medically fit, this can free up beds. Clinical home care may also reduce unplanned hospital admissions and waiting times.

The benefits for hospitals and patients sound impressive, but can SACT at home really be safe for everyone? Sir Jonathan cautions that a thorough risk assessment must be undertaken first. However, he points out that many hospital-type services can be safely given at home with patients remaining under the care of the referring consultant at all times.

For NHS patients, guidance is always sought from the local hospital to ensure the treatment provided is consistent with their clinical protocols. All Healthcare at Home's specialist cancer nurses are trained to either degree or masters level, or hold an NHS-accredited chemotherapy qualification. They all undergo annual SACT accreditation to ensure their knowledge and skills are up to standard. And all patients have 24/7 access to a team of cancer clinical nurse specialists who support them and their families throughout the pathway.

Healthcare at Home has recently invested in a major digitalisation programme which it hopes will put even more control in the hands of patients, so they can arrange appointments and track medication deliveries online. Sir Jonathan is optimistic about the future of cancer treatment and believes combining research breakthroughs and patient-centred care could make a huge difference to people's lives, "enabling them to have their best day, every day", he says.

> **You cannot underestimate the additional convenience treatment in the home can bring to the patient**

363k

new cancer cases annually (2014 to 2016 UK average)

9,970

patients left hospital sooner last year thanks to Healthcare at Home services

76,058

bed-days released back to the NHS last year by Healthcare at Home

For more information please visit www.hah.co.uk/cancer

healthcare at home

INTEROPERABILITY

Blueprints and barriers in integrated care

Creation of inter-connected primary care networks is a key part of the NHS *Long-Term Plan*, but there are significant obstacles

Danny Buckland

Primary care networks (PCNs) are trail-blazing concepts and the great hope for the NHS as it weathers the storms of funding, recruitment and an ageing population living with multiple morbidities.

Blueprinted with the intention of breaking down healthcare barriers and releasing integrated excellence, they face tough conditions as they unfurl their bold theory across general practice.

The perfect PCN will act as a fulcrum of local health delivery, tackle neighbourhood inequalities, lead the way on the prevention of cardiovascular disease and use technology to link up services for co-ordinated care.

But it is facing a GP profession short on numbers and confidence, a huge range of demographics, from inner city to rural, and patient concerns that their health records and data remain safe as they bounce round a network of GPs, healthcare professionals and community carers. All this against the clock and a rising tide of an ageing population, and with IT systems that can struggle with interoperability.

Almost a year in and the PCNs' assessment is "promising, but has some way to go".

Ruth Rankine, PCN director for the NHS Confederation, says: "The progress is variable. At one end, those that had been operating as primary care homes and had good relationships with local providers are ahead of the game. But, at the other end, there are those with fairly significant challenges."

It is a view echoed by Dr Richard Vautrey, chair of the British Medical Association (BMA), who adds: "It is early days, but in areas where there has been a history of collaboration and alignment, they are doing well. But it is taking a bit longer when they are building from scratch."

The BMA and NHS England/NHS Improvement recently negotiated extra funding for administrative staff to ensure the back-office delivery and healthcare support staff, but there is a huge responsibility on individuals to collaborate across care homes, mental health services and the real-time sharing of health records.

"I have the sense that now the GP contract has been agreed, people are getting on with it and they are thinking innovatively about how they can utilise the different roles," says Rankine. "In most cases, they are getting strong support from their clinical commissioning groups and grabbing the opportunities. Some PCNs know what they want to do, but need some support to get there."

Patient records are logged on two main systems, EMISS and SystmOne, which can synchronise, but interoperability varies, she says, adding: "There are pockets of the country where primary, acute, community and mental health are all joined up. Others still have some distance to travel."

But the focus of PCNs should be about creating more integrated patient care pathways then deploying technology in support, says Rankine. An example of this potential is highlighted in a WhatsApp group of clinical directors who are sharing best practice emerging from PCNs around the country.

"A lot of really good stuff is happening out there, so it is about gathering that in an intelligent, dynamic way and sharing it," she says. "Each PCN will be different but, across geography and demographics, there will be common challenges which we can learn from."

Vautrey, a GP in Leeds where there is an advanced care record system, says: "We would hope to see a much greater emphasis on interoperability across the NHS so we will see greater opportunities for sharing information without the need for everyone to be on the same clinical system. We need to have a common record so care plans can be shared and we do things once rather than two or three times over.

"These are teething problems. It will take time and there will be challenges. The emphasis must be on developing the workforce and building the teams, rather than try to do what the NHS has historically tried to do, to micro-manage and create excessive targets, which is not helpful."

> **Some areas are doing well. But it is taking a bit longer when they are building from scratch**

Data safety and cyberthreats are still concerns, but NHS Digital believes its security is strong enough to allay patient fears and resist attacks.

PCNs are seen as a vital step forward, but the Health Foundation cautions: "PCNs require practices to move beyond their traditional boundaries. Sharing financial resources can both generate and strain relationships, and practices will have to trust each other if sharing both staff and data is to benefit patients. The challenge of implementing PCNs must not be underestimated."

What are PCNs?

A key part of the NHS *Long Term Plan*, primary care networks were created in July 2019 to create a geographically formed network of general practices, covering 30,000 to 50,000 patients. They will give more formal structures to collaboration between GPs, pharmacists, district nurses, mental health services, acute trusts, social care and the voluntary sector, in an effort to provide better personalised and preventative care for their local community.

The idea is that they are small enough to provide the personal care valued by both patients and GPs, but large enough to have impact and economies of scale through better collaboration between practices and others in the local health and social care systems, according to NHS England.

Commercial feature

Ripple effect of mental health care on families

A critical step-change in mental health provision should see more support for the families of individuals receiving treatment and care

Relatives can struggle with lack of information, but filling this void with good communication and greater awareness can help to reduce mental health relapse rates and deflect stress for families.

Cygnet Health Care, one of the UK's leading independent providers of mental health services, believes more can be done to support families when a loved one is preparing to return to the community.

"Empowering relatives is a massive piece of the jigsaw that is sometimes missing," says Dr Tony Romero, Cygnet's chief executive. "They should be part of the solution.

"Collectively, across hospitals and services, more can be done to help prepare individuals and their families for discharge, which would serve to reduce the cycle of relapses that can affect significant numbers of people during the course of their lives. Involving relatives more can help to improve the recovery process."

The need is pressing as the Mental Health Foundation has predicted that, due to population growth, by 2030 approximately two million more adults in the UK will have mental health problems.

Depression is predicted to become the second leading cause of global disability this year while the London School of Economics and Political Science recently estimated that just a quarter of people with mental health problems currently receive any treatment.

"These figures are daunting, but a lot of problems can be addressed if we adopt a different approach," says Romero. "One of the key issues is what support and knowledge we give individuals and their families, not only during their treatment, but also to help them when a loved one returns home.

"If you have a fractured hip, you get crutches, physiotherapy and advice on how to make the best of your condition. If your child bumps their head, you get sent home with information telling you what to watch out for. If you are caring for a loved one who has had surgery, the community nurse will show you how to change a dressing.

"We need to replicate this approach in mental health. Currently, there is a lot of training and support available for a physical illness, but not for a mental health condition.

"We need to change this and give relatives a sense of ownership, so they can tell how well they are doing. Information and guidance can be so vital for their ability to care while also reducing their anxiety."

Looking after a family member with a mental health problem can have a devastating impact on the carer's own mental wellbeing. The Mental Health Foundation reported that 71 per cent of carers have poor physical or mental health. Stress is common with 55 per cent of carers suffering depression, according to the charity Carers UK.

Parity of esteem, the principle of giving mental health equal priority to physical health, was enshrined in the UK in 2012, but this laudable aim still requires more attention in this area. Cygnet Health Care believes there is a need for an innovative approach to care and aftercare that involves families more.

It is already building in greater involvement by deploying parent liaison support roles and through the establishment of people's councils across its services to allow voices and concerns to be heard and have a real influence on service delivery.

"The ripple effect of mental illness can keep going if we don't do enough to support carers," says Romero. "But the ripple effect can work in a positive way as our everyday skills and compassion can put families at ease through good communication and information-sharing. We're not just helping one person; we are helping those around them too.

"Our experience has shown it works. The parent liaison role was introduced at our CAMHS [child and adolescent mental health services] as a result of direct feedback. When a loved one is being cared for away from home, feelings are already heightened and there are all kinds of mixed emotions for families. By providing a regular point of contact, concerns and frustrations can be discussed and we have seen a reduction in complaints.

"By collaborating across the mental health sector we can make sure we are providing the additional human touch for families. Too often, anxious parents end up going to the GP, their other children can suffer, then the parent feels even worse. It is a vicious cycle.

"But simple interventions can reduce stress. Doing more to communicate pays dividends by empowering relatives and stopping them feeling helpless and guilty; all they want to do is help."

Cygnet is trialling more family involvement initiatives and hopes its experiences will have a significant impact on the holistic support and wellbeing of individuals and their families.

"We are happy to share our findings with the NHS and work together with other providers because this is definitely something we need to discuss at a national level," Romero concludes.

For more information please visit cygnethealth.co.uk

71%
of carers have poor physical or mental health

55%
of carers suffering depression

Case Study

Navigating the complexities of having a child supported away from home can be distressing for families.

Their concerns can escalate if they are not heard and appreciated, which makes regular, clear contact a vital component in the treatment pathway.

Andrew and Andrea Smith, from London, benefit from routine communication that has helped them cope with their son Jaden getting a residential placement in a rural setting outside the capital.

The move was momentous, but the placement with Cygnet has transformed Jaden's and his parents' lives.

"Knowing Jaden has good care and support takes a lot of pressure off us," says Andrew. "We get a chance to breathe and we sleep in a way we haven't slept in years.

"The team call us every evening to tell us about Jaden's day. We get the full picture and enjoy hearing about his activities. Equally if he's had a bad day, we hear about that too. We value the honesty and respect the team show us, and they value our views too. We feel reassured and connected.

"As a parent you can feel guilty, but our opinions are always sought and incorporated into Jaden's care. Knowing a strong support mechanism is in place and that we're all part of a wider, caring team with Jaden's best interests at heart is important to us."

Andrea adds: "It's also supportive for other family members, who regularly ask how Jaden's doing. We enjoy sharing the updates with our relatives.

"Knowing Jaden is safe and well looked after, because the staff care and understand him so well, is the most important thing to us."

MENTAL HEALTH

Tackling inequalities in mental health support

Professional discrimination and traditional stigmas within black and minority ethnic communities are being blamed for shocking inequalities in mental health support and treatment

Burhan Wazir

Even as the UK becomes more mindful of mental health issues such as depression and anxiety, large disparities still exist in the access to support and treatment for black and minority ethnic (BAME) and white communities.

In fact, the latest NHS figures show a white person with mental health issues is twice as likely to receive treatment than someone from an Asian or black background.

An independent review of the Mental Health Act submitted to the government in 2018 also discovered "profound inequalities" in how BAME patients are able to access mental health services.

The review drew attention to the overrepresentation of BAME inpatients in psychiatric units: black Britons are four times more likely to be sectioned than white patients, BAME patients are also more often given medication instead of being offered more expensive options such as counselling or psychotherapy. The review called for sweeping reforms to end the "burning injustice" that sees people from ethnic minorities disproportionately sectioned.

It also identified a lack of diversity in the mental health workforce as another factor in contributing to widespread distrust in the system.

In 2017-18, some 49,551 people were detained under the Mental Health Act and the average cost of each detention has been estimated at £18,315 or more than £900 million a year.

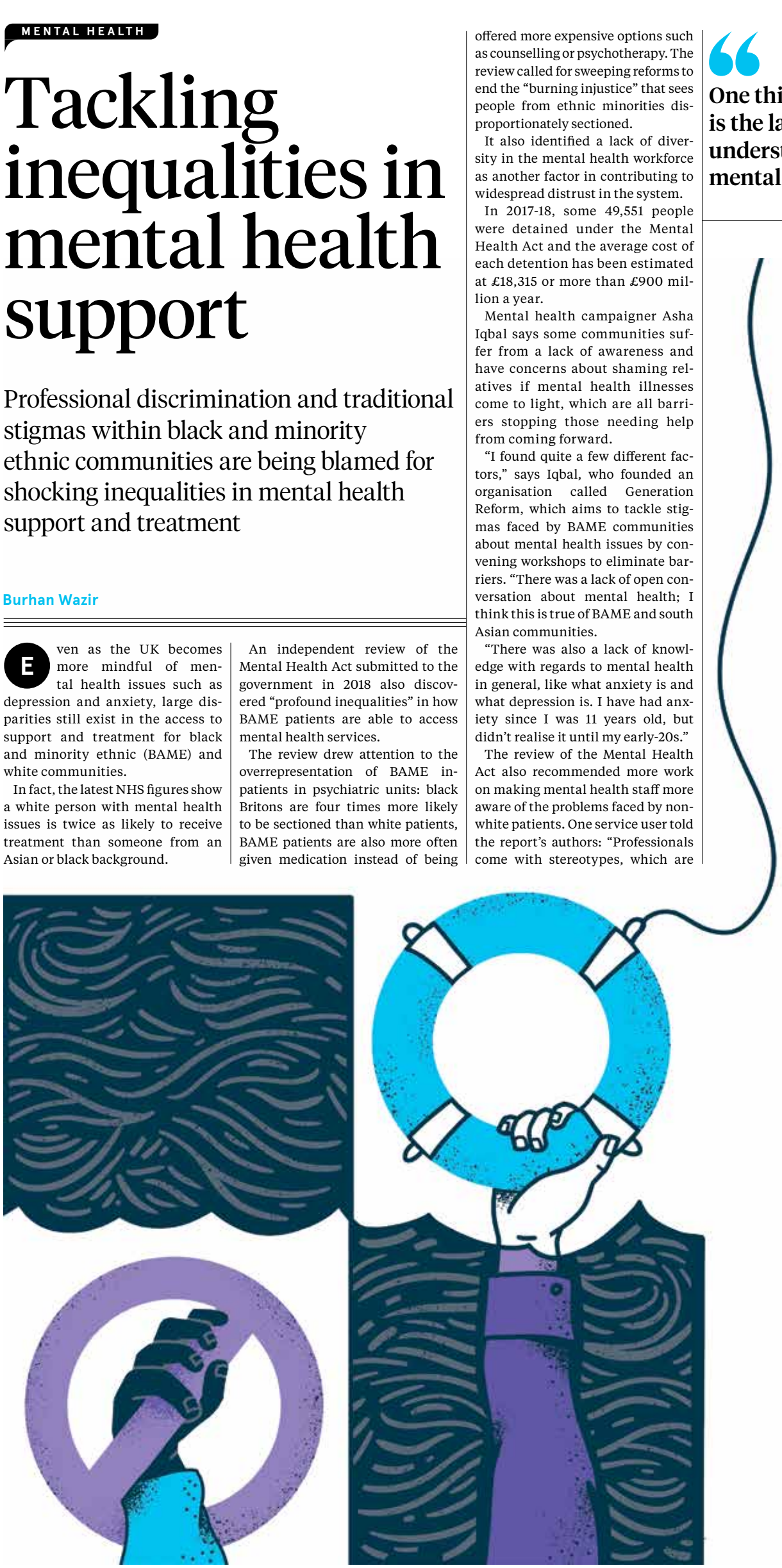
Mental health campaigner Asha Iqbal says some communities suffer from a lack of awareness and have concerns about shaming relatives if mental health illnesses come to light, which are all barriers stopping those needing help from coming forward.

"I found quite a few different factors," says Iqbal, who founded an organisation called Generation Reform, which aims to tackle stigmas faced by BAME communities about mental health issues by convening workshops to eliminate barriers. "There was a lack of open conversation about mental health; I think this is true of BAME and south Asian communities.

"There was also a lack of knowledge with regards to mental health in general, like what anxiety is and what depression is. I have had anxiety since I was 11 years old, but didn't realise it until my early-20s."

The review of the Mental Health Act also recommended more work on making mental health staff more aware of the problems faced by non-white patients. One service user told the report's authors: "Professionals come with stereotypes, which are usually negative if you're a black person. It seems professionals have to make a special effort to treat us like human beings."

> One thing I have noticed is the lack of cultural understanding on the part of mental health professionals



Disparities in how those suffering poor mental health are treated can begin at an early age. According to statistics, BAME students continue to be at greater risk of developing mental health issues compared to their white counterparts. Last year, the Office for Students (OfS) reported that black students with mental health conditions are being "failed" by British universities; figures also showed they were more likely to drop out or attain lower-class degrees.

The OfS also called on universities "to pay heed" to the different and unique backgrounds of students with mental health conditions and "put in place tailored support to close these gaps".

Mental health experts believe there are multiple ways in which black and minority ethnic communities can find help earlier. President of the Mental Health Foundation Jacqui Dyer says prevention is a key component of addressing the risks.

"If we look back now at prevention, I'm really happy that we are addressing this particularly earlier," she says. "The untreated risks are due to a combination of factors that you might call mental health inequalities.

"If you're black and male and unemployed and in unstable housing, excluded from school, then those features added together create greater risks for your mental health; adverse childhood experiences, growing up in a family where there is no income coming in. It means you are already starting to accumulate different risk factors that might make you mentally ill."

According to Iqbal, some Asian families are ashamed of dealing with mental health issues. "My brother was on pills due to his depression," she says. "I didn't know he was on those pills until much later, my family was that ashamed about it.

"One thing I have noticed is the lack of cultural understanding on the part of mental health professionals." She points to specialist counselling associations, such as Ihsaan Therapy in Bradford, which was established to address the needs of Muslim communities for religiously and culturally appropriate psychological therapies.

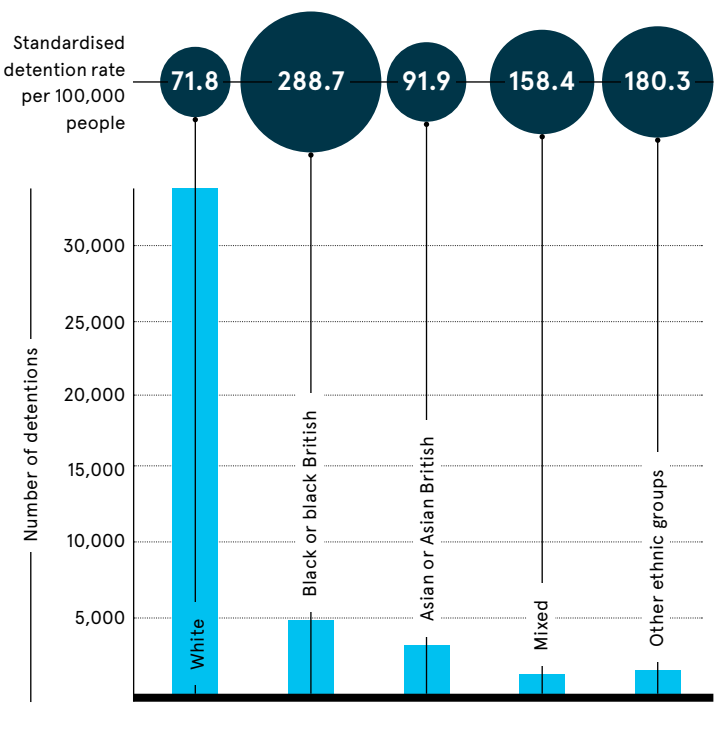
"I've seen a few times where the GP or psychiatrist doesn't understand cultural differences. So there are many issues about getting help and accessing services. I had to wait nine months for specialist PTSD [post-traumatic stress disorder] treatment. I have not yet seen any differences in training for doctors or other medical staff," Iqbal adds.

Dyer, at the Mental Health Foundation, says that while mental health issues are subject to stigmas and disinformation, governments around the world are now working to prioritise the issue. "Actually, when we think about mental health as a worldwide aspect about our humanity, the issue is the different understanding across the world about what this means," she says.

"It is only more recently when we have started tackling stigma and disinformation about mental health. It has always been much easier to talk about breaking our foot or breaking our ankle. When it comes to the mind and emotions, we haven't always had a language around that. Emotional literacy is now seen as a priority by the government."

DETAINEES UNDER THE MENTAL HEALTH ACT, BY ETHNICITY

Comparing the number and rate of detentions in 2017-18



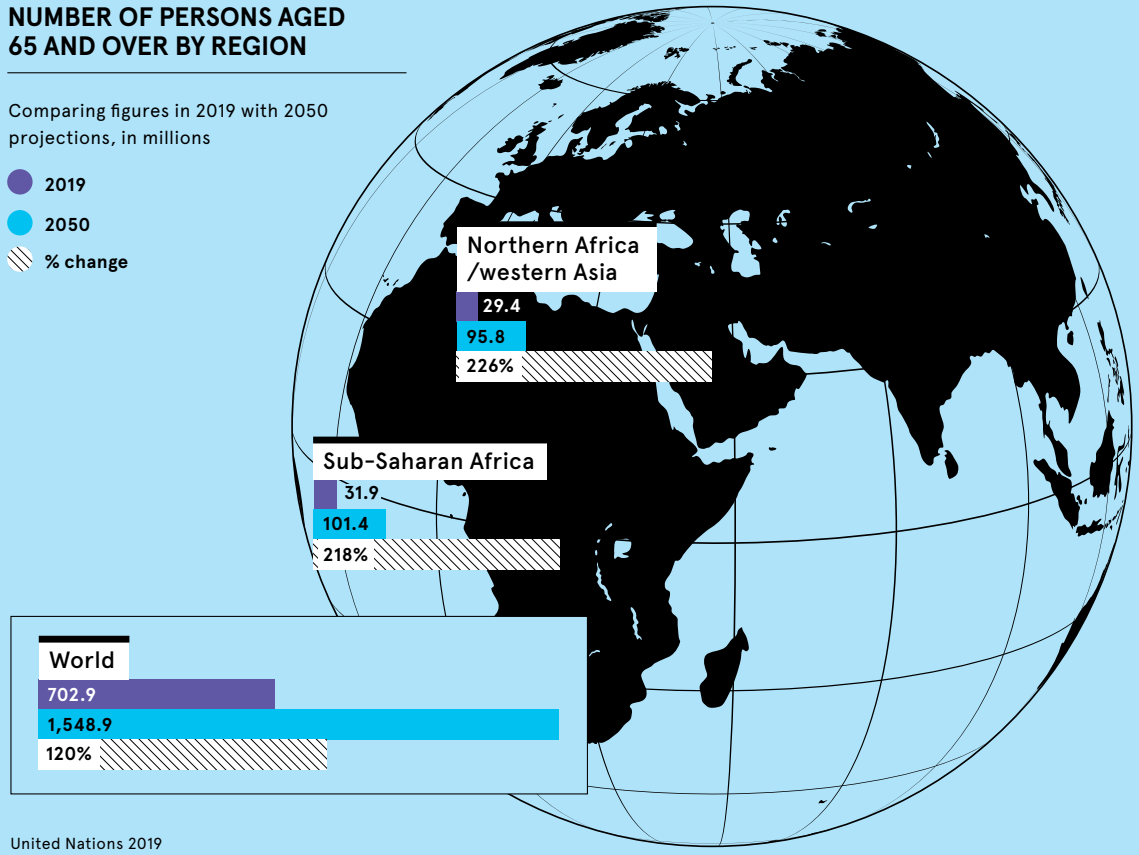
NHS Digital 2018

GLOBAL AGEING

Improvements in healthcare treatments worldwide, and increased access to them, means we are living longer than ever before. The global number of elderly people, aged 65 or above, outnumbered children under five years of age in 2018 for the first time, while those aged 80 and over is forecast to triple between 2019 and 2050. But the impact on our healthcare systems will be profound and unprecedented, and treatment strategies will need to adapt to ensure patients receive the best treatment throughout their extended life expectancies

NUMBER OF PERSONS AGED 65 AND OVER BY REGION

Comparing figures in 2019 with 2050 projections, in millions



United Nations 2019

COUNTRIES THAT ARE AGEING THE FASTEST

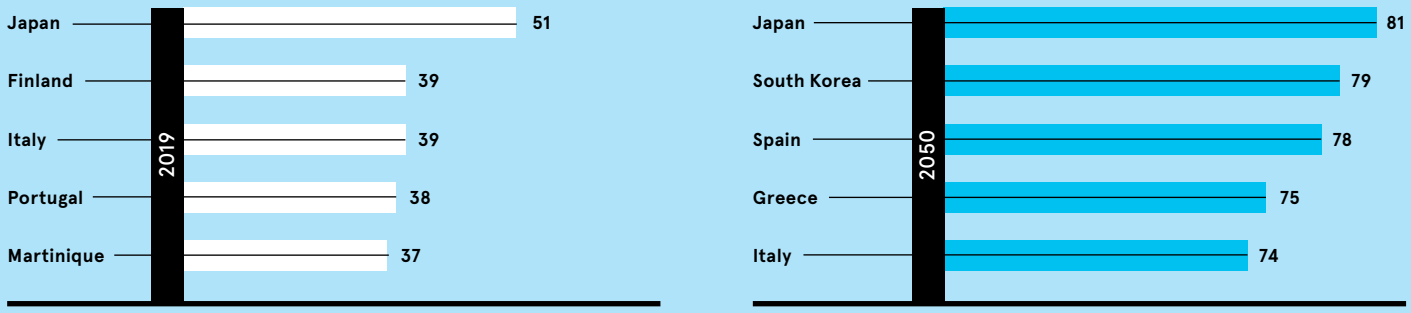
Largest percentage-point increase in the share of people aged 65 and over, 2019-2050

23	20.9	19.9	17.7
South Korea	Singapore	Taiwan	Macao

OLD-AGE DEPENDENCY

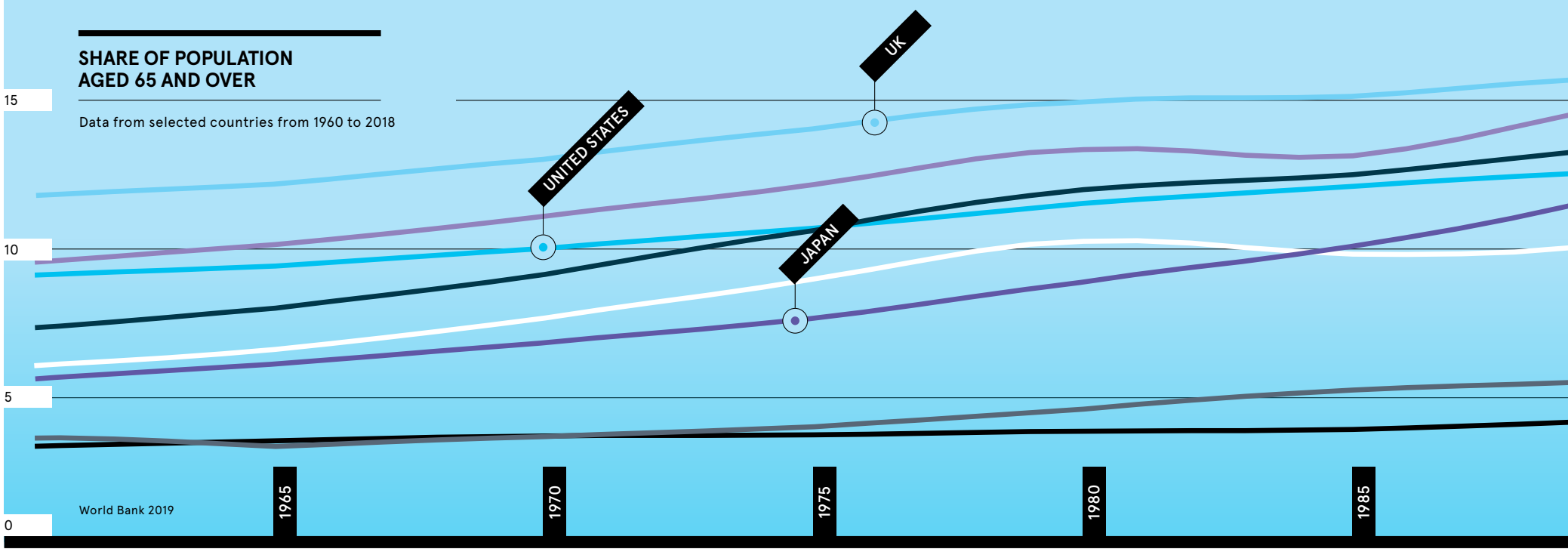
Countries with the highest old-age dependency ratio - the number of those over 65 divided by those aged 20 to 64. For example, for every 100 people aged 20 to 64 in Japan in 2019, there are 51 people aged 65 and over

United Nations 2019

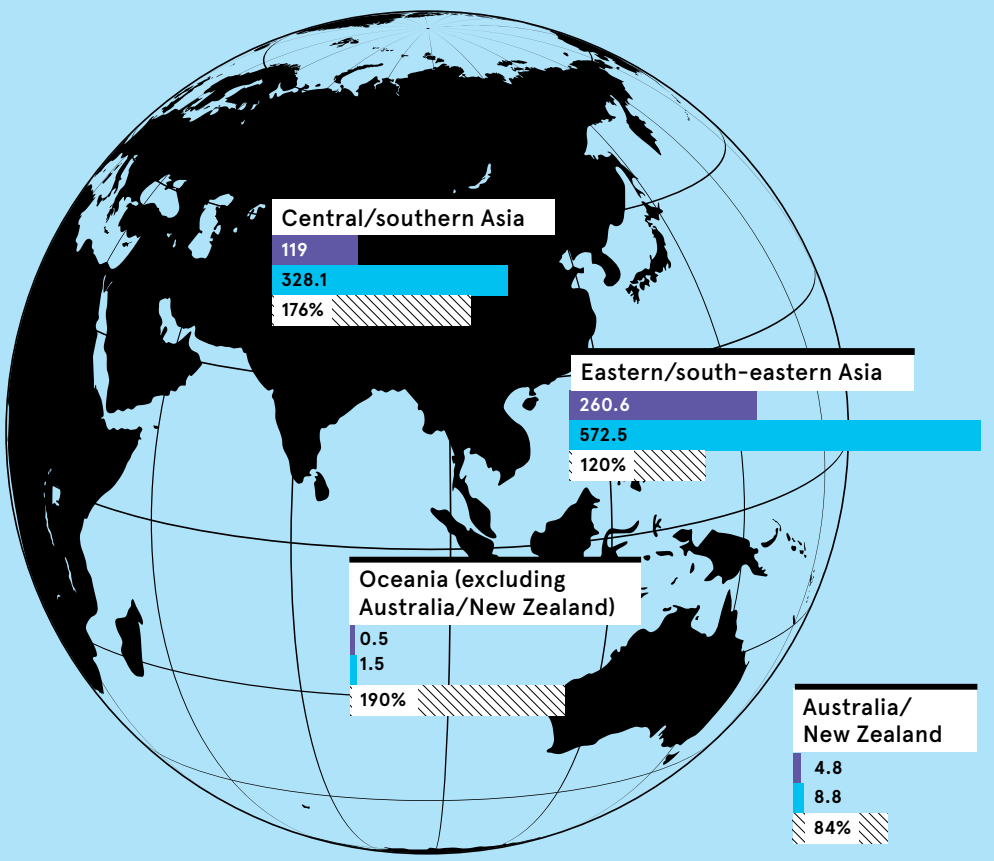


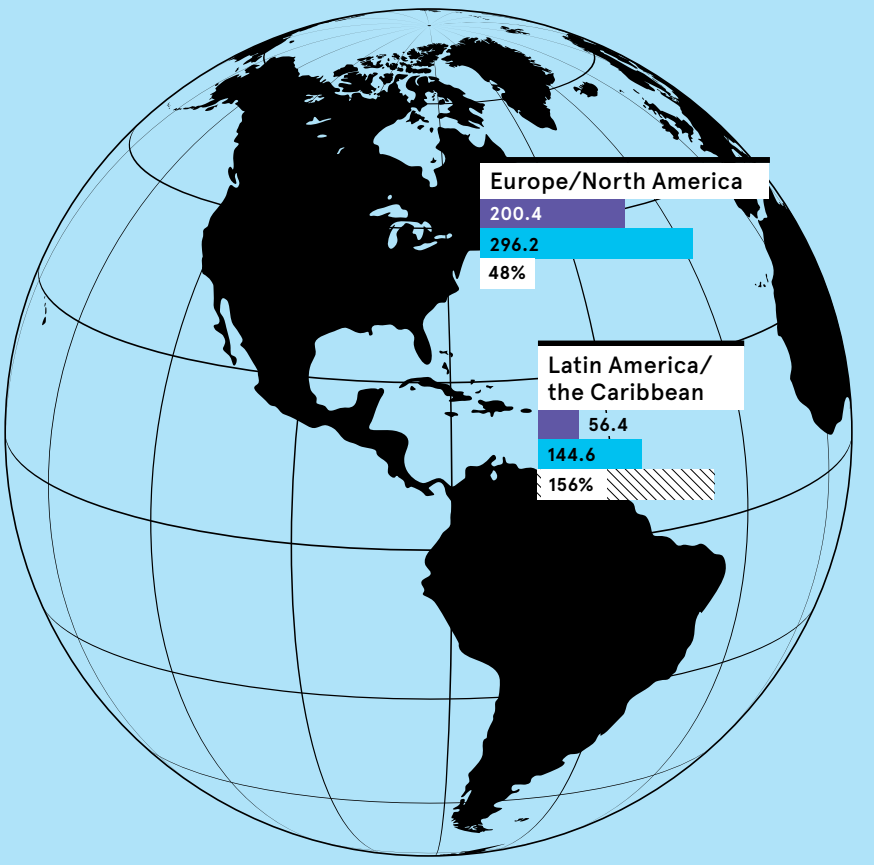
SHARE OF POPULATION AGED 65 AND OVER

Data from selected countries from 1960 to 2018



World Bank 2019





17.2

Maldives

17.2

Thailand

17.2

Hong Kong

17.2

Spain

UN 2019

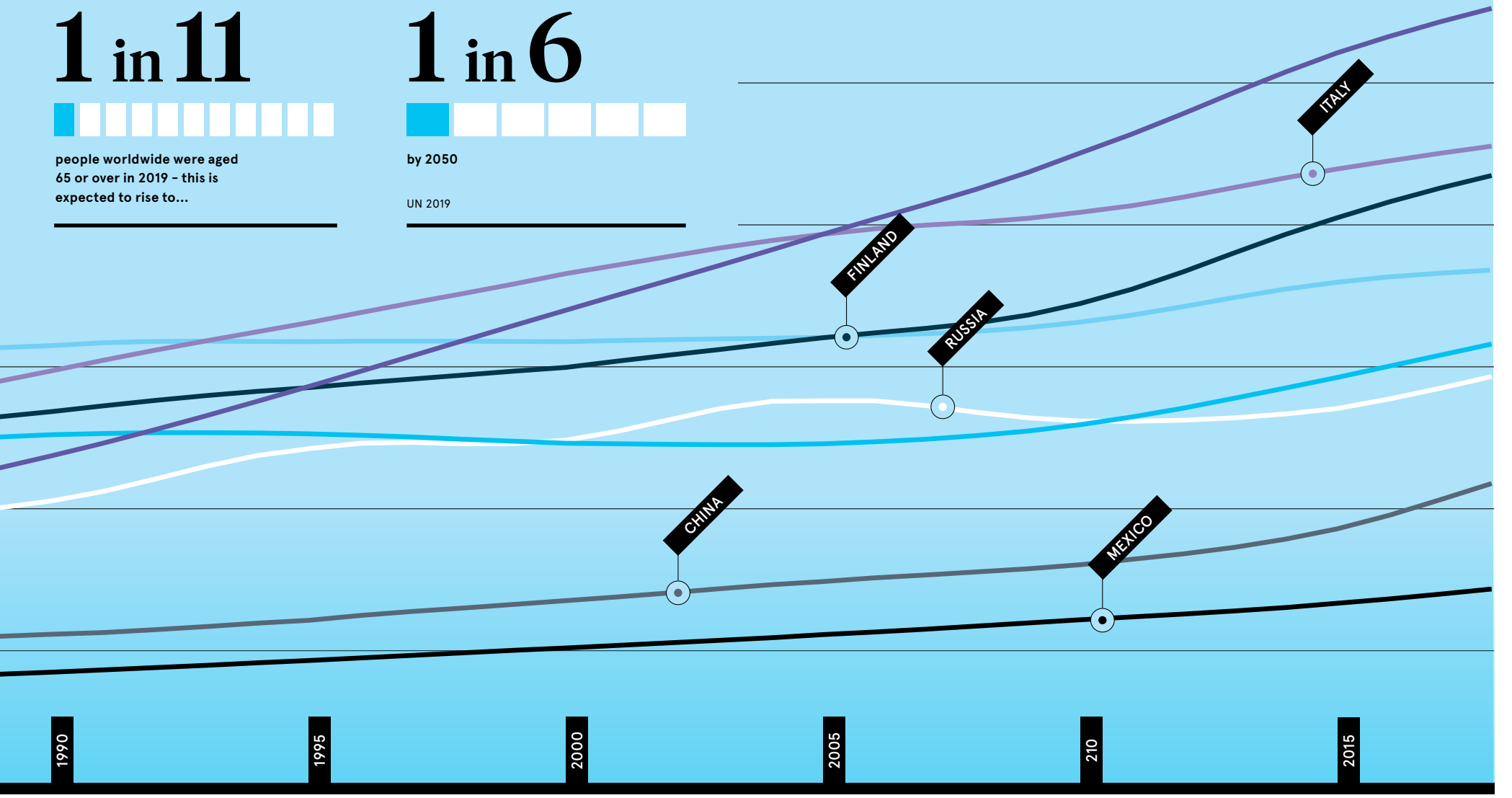
1 in 11

people worldwide were aged 65 or over in 2019 – this is expected to rise to...

1 in 6

by 2050

UN 2019



Indie-Rose Clarry, pictured here with mother Tannine Montgomery, takes cannabis oil to treat Dravet syndrome

MEDICAL CANNABIS

Medical cannabis and the ongoing fight for access

Use of medical cannabis was legalised in the UK in 2018, so why are people struggling with chronic conditions still paying thousands of pounds to obtain it?

Peter Yeung

Indie-Rose Clarry once suffered up to 200 seizures a day. The 5-year-old girl from Clare, Suffolk has Dravet syndrome, a rare and chronic form of epilepsy that affects around one in 15,000 children.

None of the ten pharmaceuticals the young sufferer tried were effective, but medical cannabis has given her a new lease of life and the ability to attend school. "Before, I don't think she was properly aware of life," says her mother Tannine Montgomery. "But since she's started taking cannabis oil, Indie-Rose has become her real self."

The UK legalised the use of unlicensed medical cannabis two years ago, provided it is prescribed by a doctor listed on the General Medical Council's specialist register, not GPs.

Yet Montgomery, like many of the estimated 1.4 million people forced to use other means, according to a survey by the Centre for Medicinal Cannabis, and Cannabis Patient Advocacy and Support Services, is struggling to obtain the necessary drugs. She says private healthcare, the only option because NHS doctors refuse to prescribe them, costs more than £4,000 a month.

Instead, the family has been forced to travel to the Netherlands where they can buy the drugs for a third of the price. But last July, her daughter's cannabis oils were confiscated at London Stansted Airport because, unless prescribed, possession or supply of cannabis remains illegal. "We've been pushed for pillar to post," adds Montgomery.

Department of Health figures published last September revealed that in the first eight months after medical cannabis was legalised, there were just 12 NHS prescriptions issued for unlicensed cannabis medicines.

However, there were more than 1,000 prescriptions for the two licensed cannabis-based drugs, Sativex and Nabilone, which are given to patients undergoing chemotherapy and have been subject to expensive and lengthy randomised control trials.

According to Steve Moore, founder of the Centre for Medicinal Cannabis, an industry lobby group, this is because the UK, unlike the Netherlands, lacks a dedicated medicinal cannabis regulatory system and so patients can only access it under a system designed for traditional medicines.

"Realistically, because of time and cost, licences won't be obtained for most cannabis-based medicines," says Moore. "Although we're not expecting a revolution in the healthcare system, given the scale of informal use, it's important there is an attempt to improve access and prescribe more."

Unlicensed cannabis products are only available on the NHS under what are known as "specials" and after other treatments have been tested. Only specialists, who could be deemed culpable should there be an adverse reaction, can prescribe them and many remain unconvinced by the current evidence.

Dearth of research led to the National Institute for Health and Care Excellence, or NICE, publishing guidance last August recommending that medical cannabis should not be prescribed until more research is done into the "long-term safety and effectiveness".

The government's position is similar, with the doubts over the cost, safety and efficacy. "We continue to work hard with the health system, industry and researchers to improve the evidence base for other cannabis-based medicines," according to the Department of Health and Social Care.

This is set to change, however, with a group of scientists led by specialist, Professor David Nutt currently conducting Europe's largest study into the effects of medical cannabis. About 20,000 patients will be treated for a range of disorders including epilepsy, chronic pain and multiple sclerosis.

But even for the tiny minority fortunate enough to get a prescription, there are a number of logistical loopholes to navigate. Firms wanting to import products into the UK must apply to the Home Office and be checked by the Medicines and Healthcare products Regulatory Agency. Although prescriptions are often only valid for 28 days, this process can take up ten weeks and therefore expire before the drug can be sourced.

The first shipment of medical cannabis, which was imported from the Netherlands, did not arrive until February 2019, four months after it was legalised.

"The costs are absolutely inordinate and the timeframe huge," says Baroness Molly Meacher, chair of the all-party parliamentary group for drug policy reform. "There must be more flexibility."

But there are signs of improvement. While prescriptions can only be made on a case-by-case basis and medical cannabis cannot be stored in the UK, vastly limiting the supply, according to Baroness Meacher, a system of "mini bulk" imports is being explored to allow the import of multiple prescriptions at once.

The private sector is already running at a much faster rate and provides a vision of what could be. "A year ago in the UK, it was pretty much like a desert," says Jonathan Nadler, managing director at Lyphe Group, which runs seven private clinics in the UK. "But that's completely transformed."

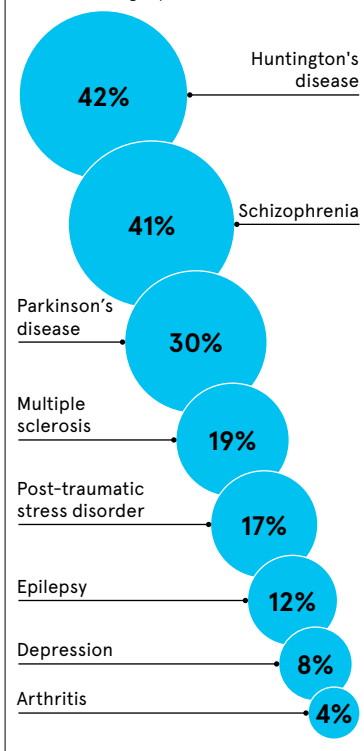
Nadler says that it now takes less than two weeks to pass the relevant checks and supply medical cannabis to the 1,000 patients on the company's books. "If they allow manufacturers to store cannabis, it will become an even more affordable market," he adds.

But for patients like Indie-Rose, the expense of obtaining medical cannabis outside the NHS has already pushed her family's finances to the limit.

"We managed to raise £32,000 from friends and family, but that's a lot of money," her mother says. "But we can't keep it up forever and if my daughter doesn't take this medication, she will go back to hospital. All we are asking for is a prescription to be filled by an NHS doctor."

CANNABIS USERS BY CONDITION

Estimated share of people with the following selected conditions who buy cannabis illegally to treat it

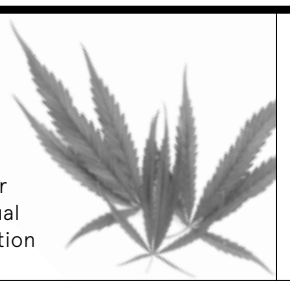


Centre for Medicinal Cannabis/YouGov 2020

Illegal cannabis for medicinal intent

YouGov survey of 10,602 adults

1.4m
estimated people in the UK are using 'street-available' cannabis for diagnosed medical conditions, equal to 2.8 per cent of the adult population



56%
of those using cannabis for their conditions do so on a daily basis

42%
are spending over £100 a month

£357
average amount spent on illegal cannabis for those suffering from Parkinson's disease

Centre for Medicinal Cannabis/YouGov 2020

Everyone who cares about health should care about data

Developments in digital health, driven by consensual data-sharing, can deliver life-saving medicines and treatments

It's a well-known fact that we're more willing to share our data with Facebook, Google or Amazon than we are with organisations helping to deliver better health outcomes. Global tech giants gather, aggregate and monetise personal data in return for free online services. Imagine if this data sharing model was applied to medicine discovery in oncology or expanding treatments for rare-disease patients?

Recently, digital health has been growing exponentially as big data, artificial intelligence and other technologies come to the fore, although many would argue healthcare is slow to adopt and innovation is behind wider society.

This seems at odds with the industry's heritage, where data is critical to patient outcomes. Digitalised, anonymous records now assist clinical trials, help design medtech or fine-tune social care, reducing service burden and improving treatment adherence. But is the healthcare sector driving innovation or simply adopting it?

"Data is everything today. All of us now realise the power of our personal information. At the same time data has the potential to improve the lives of millions. It's high time we started contributing more to the conversation. We need a data-sharing model that can work for everyone," explains Dr Myles Furnace, digital health and data lead for Ipsen UK and Ireland, a leading global biotech.

"For many new initiatives, there's an issue getting hold of good quality data. Yet it has the power to accelerate drug discovery, reduce research costs, prevent disease onset and progression. It represents a new opportunity for patients, health services and industry. Data will support smarter, faster and better decisions. From pharma's perspective, it allows us to fail faster and innovate quicker, recognising what's working and what isn't to drive the right advances."

The rise of digital health comes at a time when the pharmaceutical industry is increasingly regulated. Introducing data and technology into the mix is going to increase its complexity, adding greater scrutiny to a sector that's poorly perceived by many.

"Yet there's a disconnect between the medicines, treatment and health services that save people's lives and the data needed to deliver them. Data-based research today means better healthcare outcomes tomorrow," says Eugenia Litz, vice president of investor relations at Ipsen.

"We need a more trusted environment for researchers across industry and academia to make the most of patient data. That starts with an agreement on who we trust with our information, who benefits and what we hope data-sharing will achieve.

"At Ipsen, we're driven by the value collaboration this can bring to patients. If we don't proactively address this mistrust in information-sharing that extends beyond healthcare, then patients will never benefit from new data-driven innovations."

> **Digital health is the next step and it could go a lot further with the right dialogue, so let's start talking**

It comes at a time when the UK public want more control over their data. A poll conducted for the Institute for Public Policy Research shows that 80 per cent want tighter regulation on how Google, Facebook and Amazon use people's information. While this is happening, global tech giants and digital players are investing heavily in healthcare. Could the sector be forging ahead without building public trust?

Pharma is also bottom of a list of 25 industries in terms of reputation, according to a recent US survey by Gallup. It's a disappointing reality that researching and bringing medicines to market to improve and extend lives is still perceived to be worse than tobacco, oil and advertising. The pharma industry clearly needs to do better.

The NHS is now looking into the issue of digital health and creating a cohesive data strategy that promotes good governance.

The debate raises many moral questions. Would you be willing to share your health data to save lives? Who do you want your data shared with? Do patients want new treatments generated on the back of data insight? If big data and artificial intelligence optimises diagnoses and drug delivery, who should benefit?

"Doctors, academics and pharma have a crucial partnership, but at the heart of this debate sits real people to whom this data belongs. The free flow of information shouldn't be viewed as inherently good unless the public sees it that way. For this to happen, they have to see the benefits, new treatments, technology or data-driven success stories," says Litz.

"We need increased transparency, greater understanding and we must educate patients about digital health developments. Otherwise confidence will be in short supply. Real dialogue with the public is crucial. In 2019, Ipsen achieved industry-leading sales growth of 15 per cent; trusted strategic partnerships are crucial to our success as we seek to develop effective therapeutic solutions. We recognise that the patient journey is key to building trust."

The Association of the British Pharmaceutical Industry is also focusing on boosting trust in the sector's activities, pushing for research to be more transparent, accessible and understandable. After all, the industry is the biggest funder of UK research, investing £4.5 billion developing future medicines.

"The good thing about data-driven, digital health is that it's patient centric. New technologies aim to connect patients with their data, conditions and outcomes. Patients are no longer bystanders in their treatment journey, but co-creators," explains Furnace. "We want to address this reputational challenge and work with health systems and researchers to build trust."

Digital technologies will help Ipsen understand the patient experience better, their environment and lifestyle, particularly during clinical trials. Data-driven decisions could increasingly determine whether to accelerate or stop the development of new innovations in oncology, neuroscience or rare diseases.

"Digital health has the potential to really empower people. We live in the 'patient era' when we all have greater access to information than at any point in history. Engagement from all stakeholders in this new data-driven era will determine everything," says Furnace.

"The industry will have to change the way it talks. This is much broader than drugs or data. It's about optimising patient care and delivering real outcomes. Pharmaceutical innovations have saved millions of lives in the hands of healthcare professionals. Digital health is the next step and it could go a lot further with the right dialogue, so let's start talking."

> **Data is everything today. All of us now realise the power of our personal information**

£4.5bn

invested by industry (the biggest funder of UK research) in order to develop future medicines

80%

of the UK public want tighter regulation on how Google, Facebook and Amazon use people's data

For more information please visit www.ipsen.com/uk

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A&E

Are waiting times really the best metric?

Whether they rise or fall from month to month, A&E waiting times are always a contentious topic for politicians, healthcare professionals and the public alike. But are they actually a valuable measure of NHS effectiveness?

Andrius Kaziliunas / Shutterstock

Martin Barrow

There is a political row every time Accident & Emergency waiting times are published. The latest figures were no exception. They revealed that more than 100,000 patients in England waited for more than four hours to be treated in A&E in January, the highest number since records began.

Politicians, doctors and patients were all drawn into the furious debate that followed on what the numbers said about the performance of the health service.

But all this will end if the government has its way. Health secretary Matt Hancock wants to scrap the four-hour waiting target because it is no longer deemed to be "clinically appropriate".

The move has met strong opposition. Critics say it has everything to do with the fact that the target, enshrined in the NHS mandate, has been missed for many months and is unlikely to be met any time soon, because of funding and staffing pressures.

Dr Simon Walsh, British Medical Association emergency medicine lead, says: "Targets are an important indicator when services are struggling and there is a very real concern that any change to targets will effectively mask underperformance and the effects of the decisions politicians make about resourcing the NHS."

The government, meanwhile, says that care in hospitals has changed significantly since the target was introduced 20 years ago. Some patients who would have been admitted to hospital overnight now receive more lengthy investigation and treatment in A&E before being discharged home.

What is beyond dispute is that A&E waiting times have become a barometer for overall performance of the NHS and social care system. This is because they are affected by changing activity and pressures in other services such as the ambulance service, primary care, community-based care and social services. For example, patients cannot be admitted quickly from A&E to a hospital ward if hospitals are full due to delays in transferring patients to other NHS services or in arranging social care.

But measuring the proportion of people seen within four hours has limitations. The King's Fund health and care think tank points out that two different A&Es could see the same proportion of patients within four hours, but have very different average waiting times.

In addition to waiting times, the quality of A&E care can also be measured through patient experience surveys and clinical indicators such as the proportion of patients who re-attend A&E within seven days of their first attendance. Other measures, such as the time a patient waits to see a clinician in A&E, are also now recorded.

A review of A&E waiting times was launched by then-prime minister Theresa May. The review is yet to be completed, but an interim report was produced by Professor Steve Powis, NHS England's national medical director, in March 2019. He proposed three new targets: using average waiting times in emergency departments as the main measure, instead of a 95 per cent threshold; recording how long patients wait before being clinically assessed after they arrive; and checking how long the most critically ill patients wait before their treatment is completed.

Boris Johnson's government has not committed to the recommendations and the delay has created uncertainty.

Dr Katherine Henderson, president of the Royal College of Emergency Medicine, says: "So far we've seen nothing to indicate that a viable replacement for the four-hour target exists. Rather than focus on ways around the target, we need to get back to the business of delivering on it."

The King's Fund's Siva Anandaciva, policy team chief analyst, says the simplicity of the existing target for A&E waiting times is also one of its strengths. "The four-hour target is simple. Regardless of the time of day, how full the hospital is, the medical needs of the patient, every individual attending an A&E department is given a pledge that they should expect to spend no more than four hours in A&E," he says.

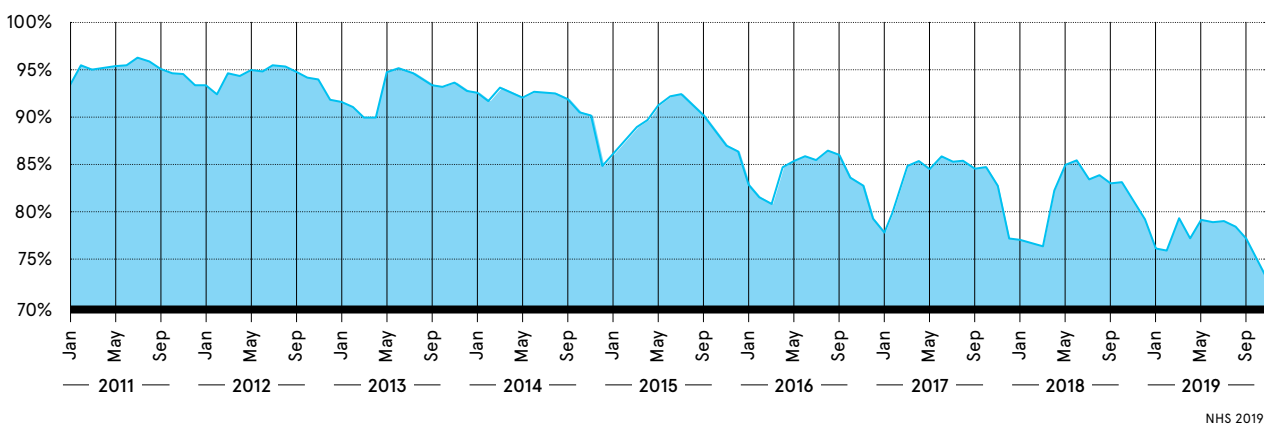
Another concern for hospitals is there will be losers as well as winners. We do not yet know what the new target for average waiting times will be, but we do know the impact will not be uniform across the sector.

Something that does tend to be overlooked is the vast majority of patients are still seen within four hours of arrival at A&E. The NHS in England also compares favourably with other countries on providing rapid access to emergency care, even though performance has deteriorated in recent years.

Nonetheless, it is likely A&E will continue to be the main focus for testing the performance of the NHS for some years to come.

THE FOUR-HOUR RULE

Share of people who attended hospital A&E and were seen within four hours or less in England



NHS 2019

OPINION

‘With more than half a million different products, we will all interact with healthtech, within our own home, GP surgeries, hospitals or care facilities’

There are few industries that can lay claim to touching the lives of everyone, yet healthtech is one of them.

With more than half a million different products, we will all interact with healthtech, within our own home, GP surgeries, hospitals or care facilities.

The products, technologies and services are both varied and dynamic; from medical devices, including pacemakers, surgical instruments and infusion pumps, and diagnostic tools, such as tests for infectious disease and MRI scanners, to emerging digitally enabled technologies, robotics and artificial intelligence (AI).

Healthtech is integral to the delivery of modern healthcare, enabling clinicians to provide improved patient outcomes in a safe and effective manner for the NHS.

As the largest employer within UK life sciences, this diverse industry is made up of 127,400 people working across 3,860 businesses, who collectively generate a turnover of £24 billion.

Healthtech products are highly regulated. To enter the market, they must demonstrate robust quality, safety and performance attributes that clearly prove their benefit outweighs the risk involved in their use. They are then continually monitored during their life cycle to ensure their long-term safety.

The iterative nature of the way such products are developed, and their potential to be truly disruptive to care pathways, means that a unique, nimble approach to approval and introduction into the NHS is needed.

Regulation has balanced risk and benefit and has led to the introduction of technologies that many of us now take for granted, such as joint replacements. The collection of high-quality data has been crucial in monitoring their safety performance, with initiatives like the National Joint Registry demonstrating how useful data collection systems can be.

Registries enable both industry and the clinical community to collaborate positively via an agreed framework, monitoring and assessing the performance of devices in a real-world setting.

In ensuring the continued safety of all healthtech products, registries are likely to be a prominent feature of future healthcare discussions and the healthtech industry looks forward to supporting such efforts.

How this work fits into the wider regulatory framework is also important. The UK currently belongs to a European-wide system, which will end when the post-Brexit transition period concludes on December 31, 2020.

In line with the government’s desire to develop a more sovereign regulatory regime, there are opportunities to consider other potential processes in the long term.

Data compatibility with the European system would make sense, as a wider population pool significantly helps to monitor safety trends. That said, a more bespoke system could also enable greater consistency with international requirements, mirroring a trend towards global harmonisation of regulations.

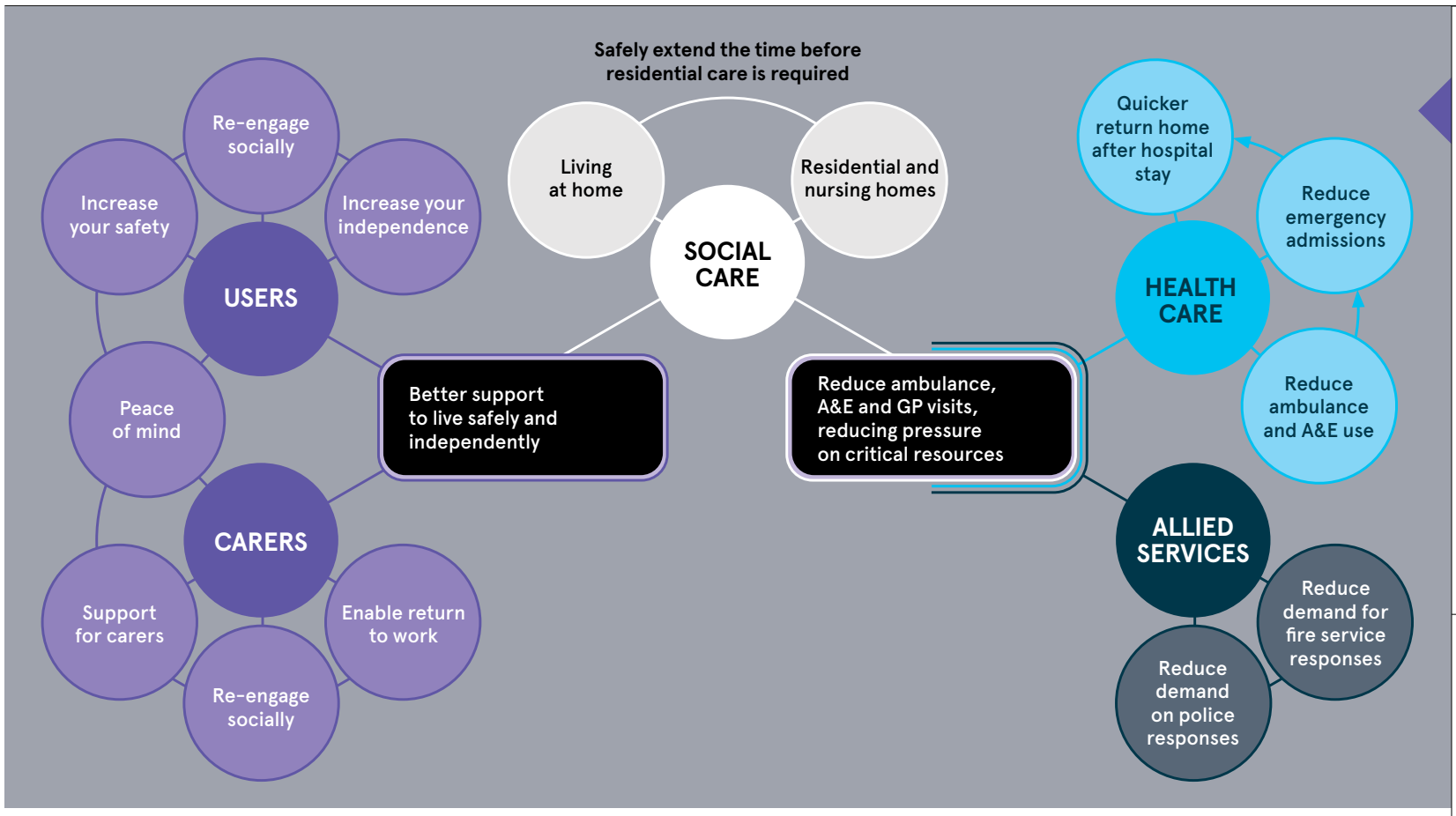
Interactive, patient-focused regulations can also support emerging technologies such as AI, where systems continue to learn and refine once they are in clinical use and collecting new data. This is an opportunity for the UK to work towards and excel in.

Well-crafted regulations can ensure both continued patient safety and the demands of future technology-led healthcare delivery. The UK has the chance to be a global leader in this vital work.

For us to succeed, it is important to continue this public discourse about the balance of risk and benefits associated with the medical treatments from which so many of us benefit. ●

Peter Ellingworth
Chief executive, Association of British HealthTech Industries

Commercial feature



Tech collaboration with health and social care puts people first

New models of social care are desperately needed to look after the elderly and vulnerable as the UK faces rising challenges from an ageing population and financial constraints

A changing society, characterised by the elderly living far from their children, dual-career families, some with financial challenges, is ratcheting up the strain on paid and unpaid carers as many people are now being asked to live at home with minimal care packages.

Dangers from falls, deteriorating health, loneliness and isolation can be addressed by technology, but such innovation has to be synchronised with effective service and support, says Gordon Sutherland, chief executive of market-leading Tunstall Healthcare.

The Yorkshire-based company, which has 60 years' heritage pioneering technology to enable people to live at home independently, is taking its expertise to new levels to create highly effective models for care.

Building on its background of reactive response systems for social-care issues, it is helping to create new care systems that can help monitor chronic, long-term conditions and predict where and when help is needed. Its intelligence-driven capabilities are paving the way for more connected and predictive care.

"There is a great emphasis and expectation on technology being able to save the social-care system and we believe strongly in its potential," says Sutherland. "But we need it to work in the community every day; it is more than delivering a shiny, new piece of technology. It is about finding a long-term, cost-effective solution.

"It is about innovation in the integration of healthcare and the social-care system that will make the technology work to its full potential. It is about being open to change the way we have traditionally delivered services.

"The integration of health and social care needs is critical. We can play a big part by enabling more people to live at home, or where they choose, for longer and help them and their families feel secure."

Tunstall, which operates throughout Europe, the Middle East, China, Canada and Australasia, has seen its technology progress from the familiar red-button response system to the deployment of digital sensors and medical devices to analyse behaviour patterns and provide early warnings of failing health and also prediction of falls.

Developing systems where technology synchronises with GPs and hospitals has the potential to reduce unnecessary clinic and A&E visits and reduce strain on community nurses.

"We are transitioning from being the provider of just the technology and software to a company that collaborates with healthcare and social services to develop a 'wrap-around monitoring, connectivity and data analysis' system based on the data you, the citizen, want to share. This way it helps people to continue to live at home with a life they want," says Sutherland.

The importance of technology is echoed by the TEC Services Association, the representative body for technology-enabled care services. Chief executive Alyson Scurfield says connected health information and data will help deliver personalised care.

"We need to focus on improving the lives of people enabled by technology and shifting to outputs and outcomes for people," she says. "Technology on its own will not solve any system, but service transformation and putting the service user at the heart of everything they design will."

Tunstall is working with leading hospitals, government bodies, local authorities, universities and innovation centres across the UK and Europe to develop a new, advanced cognitive care system that utilises multiple smart devices, wearables and sensor technology for real-time messaging to clinical and social support as well as family members.

The aim is to provide core support, enhance and encourage healthy living and improved wellbeing while driving cost-efficiencies through financially constrained healthcare systems.

"Countries across Europe have adopted different approaches to manage this issue and there is a growing realisation of the overall benefits of investing in social healthcare and that technology can be a conduit to social engagement to offset the effect of exclusion or loneliness," says Sutherland. "Technology can monitor for subtle changes in behaviour which may indicate or predict a fall, or the onset of a health concern.

"We are seeing exciting developments in a rapidly developing sector, but our vision remains constant: to help people have the freedom to live their life to the full in a place of their choice."

For more information please visit www.tunstall.com

Tunstall

Case study: Calderdale

Tunstall collaborated with NHS Calderdale clinical commissioning group, which has one of the UK's highest rates of older people living in care homes, on a programme to use telehealthcare to improve patient care and safety, therefore reducing the number of hospital and GP visits, and days in hospital.

The results are impressive: hospital bed days down 68 per cent year on year; GP care-home visits reduced by 45 per cent compared to homes not in the research programme; hospital admissions down 26 per cent year on year; £799,561 in savings from reduced hospital stays; and the number of falls reduced by 18.6 per cent.

This work has resulted in many other regions adopting similar programmes and illustrates what can be done when technology utilised by doctors, nurses and social-care professionals enables changes in how health and social care works in real life. It makes the lives of older and more vulnerable people safer, at the same time helping the NHS and social services free up resources to invest elsewhere.

Further research by Tunstall suggests that should such models of care be implemented across NHS England, the amount of value released into the system would be in the region of £1 billion a year, with estimated savings of 2.5 million bed days.

68%
reduction year-on-year in hospital bed days

26%
reduction year-on-year in hospital admissions

45%
reduction of GP care home visits compared to homes not in the research programme

£799,561
in savings from reduced hospital stays

The Tunstall research programme has developed an integrated and quantified map of the resource benefits that are potentially realisable with Telehealth and Telecare.

The research conclusively demonstrates how effectively managed and integrated telecare programmes can have a major impact in current operating terms.

This includes savings of £4.5k per person per annum in social care costs for users who have telecare compared with those with similar needs but who do not have telecare.

Preliminary evidence also points to potential benefits for healthcare and further research has been commissioned to consider these aspects definitively. However, even based on the capacity release in the social care system alone (i.e. additional costs avoided), the economics are compelling.

SOCIAL CARE

Social care integration is vital for our future

Social care can act as a preventative measure, aimed at promoting wellness, better housing and combating loneliness, to tackle serious burdens on the healthcare system

Helen Beckett

Connecting health and social care is a necessary 21st -century evolution of overburdened services.

Just 20 per cent of a person's health outcomes rely on medical care; housing, education and other social factors collectively influence the remaining 80 per cent. Joining up domiciliary care, mental health services and healthcare, through digitalisation and sharing data, creates a continuum of care, but is only happening in pockets.

A wave of cheap, consumer-based technology is becoming available on mobile devices, bringing the opportunity to deliver better care in people's homes, promote wellbeing and avoid expensive hospitalisation.

A smartphone can measure pulse, respiration, blood pressure and blood oxygen, and even do ECGs. Miniaturised, mobile technology is shifting care out of hospitals and surgeries, and connecting networks of professionals around patients.

Community interest company Care City equips domiciliary care workers and even shop assistants with mobile digital technology to promote healthy ageing and social regeneration in East London.

"Diagnostic technology is developing fast, is cheap and portable, and already in the pocket. That's exciting for health and social care as the diagnostic brains are in the cloud," says John Craig, Care City chief executive.

In a Care City pilot, part of the Innovation Test Bed run by NHS England and Office for Life Sciences, care workers with mobile devices take observations that are run against an algorithm using the so-called national early-warning score. If the screen turns red, from green, the care worker escalates to a health worker who uses the data to make a clinical diagnosis, saving resources and keeping people out of hospital.

This exemplar, happening in homes in Barking, is proof of how digital innovation at the edge can connect relevant care professionals with patients in their homes. Integrating data, IT systems and governance to provide joined-up patient journeys at scale, however, is a far greater task and Manchester is arguably the most advanced region.

Around the country, 14 regions are building integrated care systems and Manchester has used its devolved local government status to form the Greater Manchester Health and Social Care Partnership.

Dr Tom Tasker, local GP and chair of the joint commissioning board, says local government agencies no longer pull in different directions with different budgeting priorities. "Health and local authority commissioners together provide the best value for the Salford pound," he says.

The healthcare model that the partnership embraces is broad, connecting multiple agencies, including schools, mental health and children's services, in support of Manchester's mantra: "Start well, live well age well".

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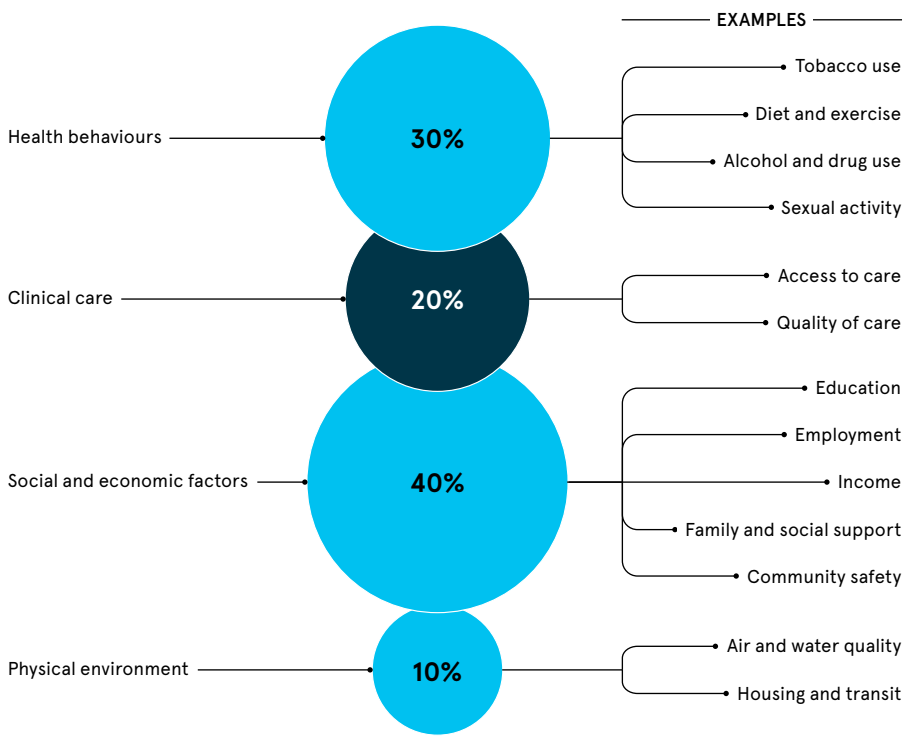
HEALTH FACTORS THAT DETERMINE LENGTH AND QUALITY OF LIFE

Non-healthcare factors that determine the average person's health outcomes



UWPHI/NHS

Mayor Andy Burnham's A Bed Every Night initiative to counter homelessness has bucked the national trend, reducing rough sleeping by over a third in the past year. Wrapping health interventions, care packages and housing together has been a key factor in the success story, says Tasker.

Integration on this scale is an immense task. But social enterprises and technology firms, working with local authorities and clinical commissioning groups (CCGs), are proving that joining up small datapoints along the patient journey also pays. At Leeds Teaching Hospitals NHS Trust, mobile computer vision supplier Scandit trialled barcode scanning on digital devices as part of the NHS Scan4Safety pilot, designed to boost compliance of drug administration and patient safety.

By linking information on patients' wristbands, encoded with a standard barcode, with an electronic patient record and patient administration system, Leeds now has a near real-time view of the patient journey. Such transparency is valuable in costing treatment, improving clinicians' practice and realising significant financial savings.

Progressive health and social care administrations are harnessing data transparency and business intelligence (BI) as a radical force in reimagining citizen care. West Cheshire CCG is building an intelligence-led organisation. Starting point was a data stratification tool that predicts risk of hospital readmission. The BI team also wanted to identify people at risk of first-time admission, says Andy McGivern, associate director of BI for Cheshire CCGs.

Realising the ambition called for social determinants to be collated and much time was spent talking to the council and achieving data-sharing agreements. Joining up data about patients' locations, admissions, diagnoses, observations, mental health and primary services, prescription data, and 111 calls created new profiling capability.

"Providers thought they knew their high-risk patients, but they only knew 60 per cent. The data surfaced the other 40 per cent of patients at risk of admission," says McGivern.

While politicians, commissioners and practitioners grapple with systemic integration of finance, governance and IT systems, digital is connecting health and social care in novel ways.

> **Care workers can escalate to health workers who use data to make a clinical diagnosis, keeping people out of hospital**

Refero, a secure engagement platform, is putting vulnerable and excluded young people at the centre of their own family and professional support network in south-west England. Video conferencing tools, such as LIVI and vCreate, are helping GP surgeries and hospital wards stay connected with patients and families.

Former government tsar for emergency care Professor Matthew Cooke concludes: "New technologies enable records to be more secure and to restrict access to those who need to know." Digital systems can help provide seamless care across health and social care, but as Cooke sums up: "It's work in progress at present."

S.C. Leung/SOPA Images/LightRocket via Getty Images

CORONAVIRUS

Is the UK prepared for a pandemic?

Experts debate the authorities' approach in communicating news and advice about coronavirus to the public

James Gordon

The World Health Organization is still classing the novel coronavirus as an epidemic. But as the number of confirmed cases surpass 100,000, it says the virus has "pandemic potential".

Since the COVID-19 outbreak began in a fish market in Wuhan City, China in December, over 90 countries have confirmed at least one case. While China has recorded the most cases (80,735 to date), there has also been a spike in infections in South Korea (7,534) and Iran (6,566).

Closer to home, as a global pandemic edges ever closer, it's what is happening in Italy, where 7,000 people have contracted the virus, that worries European governments the most. As Raconteur went to press, the Italian authorities have put 16 million people in Northern Italy under quarantine. This raises important questions as to whether other countries in Europe – many of whom have so far escaped unscathed – are suitably prepared to handle a COVID-19 pandemic.

On the surface the UK appears to be better prepared than most. According to the Global Health Security Index (GHS), which assesses a country's ability to deal with a global contagion, the UK sits second in the global table, nestled between the United States in first place and the Netherlands in third.

Dr Tom Wingfield, a leading infection physician and researcher, says that "the huge efforts and world-class contact tracing and screening conducted by Public Health England (PHE) and the NHS" has contributed to a delay in the rise of numbers of cases in the UK.

However, such contact tracing and screening is difficult to achieve in cases where there is no relevant travel history, no symptoms or no known COVID-19 exposure. At the time of writing, PHE confirmed that 23,513 people had been tested for COVID-19 in the UK, with 273 testing positive.

While the UK government has been proactive in its preparedness, published a comprehensive plan of action and is currently focusing efforts in 'delaying' the outbreak, some say it hasn't always been on the front foot.

Take Professor Samer Bagaeen, a Conservative Councillor who sits on the Health & Wellbeing Board of Brighton & Hove City Council, for instance. In an interview conducted in late-February, following a mini Coronavirus outbreak in Brighton, he said PHE and the council demonstrated "a total lack of preparedness, guidance and communication" at the onset of the outbreak.

"There was no plan, no clear chain of command and a complete lack of cohesion between PHE, the NHS's Clinical Commissioning Group and the council. In my view, they just wanted to lockdown information completely and keep the public in the dark," he said.

With the East Sussex outbreak now under control, Professor Bagaeen says that while policy has "evolved in some small areas", such as the council advising the public to "double bag all black bags containing tissues", he says he is "still not sure what would happen if we get a second wave of Coronavirus cases in the coming months – as looks likely".

He is particularly concerned about the PHE's communications – at least in East Sussex – which did "not reach everybody" including local run housing associations. "I've seen PHE's messaging in national newspapers, but many millennials don't read newspapers. They get their news from social media. PHE only made use of the main social channels towards the end of the outbreak, despite listing it as a key strategic priority in its PHE *Infectious Diseases Strategy* document."

PHE chose not to respond directly to Professor Bagaeen's observations, but said that in adopting a multi-agency approach "it had identified all five cases and tracked all known contacts".

It was also keen to stress that its nationwide communications strategy is part of a wider approach including both national and local government and the NHS, and is actively promoting key Coronavirus messaging in print, on radio, and on a raft of different social media channels.

> **There was no plan, no clear chain of command and a complete lack of cohesion between PHE, the NHS's CCG and the council**

While Dr Wingfield was also unable to comment on details of how the recent East Sussex outbreak was handled, he agrees that despite PHE launching what it calls "a far-reaching digital communications strategy", it, and the NHS "could look to improve how and where digital public health messages are transmitted".

"The ideal solution would be to find a mechanism where a single and uniformed message is broadcast on all of the most popular social media platforms. The challenge, however, is that there's so much information and misinformation out there, that messaging can get lost in the noise. That's probably one of the reasons that PHE has consistently elected to keep its key messages simple," he says.

Maybe so, but Professor Bagaeen notes that PHE's key message, which he says "promotes good hand washing techniques and 'catch it, bin it, kill it' messaging", fails to take into account "the inter-connected world we live in".

He highlights that as scientists don't know how long the virus can survive on surfaces, guidance is needed to ensure that the infection doesn't spread in shared workplaces, or while travelling on public transport. He also questions why government health advice isn't targeting the growing army of couriers, who deliver goods to hundreds of homes every shift.

"What if a driver contracted COVID-19 without realising and became a super spreader? Could a contaminated proof of delivery console or a parcel trigger a spike in infections? Maybe not, but we just don't know. The wider point is, however, that government health advice needs to be better tailored to the way we live our lives."

273

people in the UK have tested positive for COVID-19 as of 9am, March 8

24k

in total have been tested

Public Health England

Dr Wingfield agrees to some extent, but says "developing messaging around risk is the most important factor". He thinks that the greatest risk of transmission "does not come from touching a courier's POD console, hot-desking, or even sharing another person's mobile phone". Instead it's through airborne exposure and "being in close vicinity to somebody exhibiting novel Coronavirus symptoms".

Most importantly, with a pandemic looming, Dr Wingfield says health bodies must "improve the way that they interact with the public". He concludes: "PHE could consider appointing local community health champions, who are healthcare experts within the lay community, to sit alongside NHS chief medical officers. That would not only reassure the public but would ensure the right messaging cuts through."

OPINION

‘What is the government going to do next to reverse the worrying trend in health inequalities?’

Compared to a decade ago, people can now expect to spend more years in poor health. Worse still, while increases in life expectancy have stalled for many, they have declined for the poorest 10 per cent of women.

These shocking facts are detailed in the latest report from the Institute of Health Equality, entitled *Health Equity in England: The Marmot Review 10 Years On*.

90%

of the population's health is determined outside of the NHS, through a social process that happens in people's homes, neighbourhoods, workplaces and wider networks

Authored by Sir Michael Marmot, the report also demonstrates sharp inequalities: the more deprived the area the bigger the drop in life expectancy and years in good health. This is unprecedented in modern times.

This new analysis by one of the world's most respected experts on health inequalities shows that, despite the intense focus on the NHS in successive elections, the government has not adequately prioritised health during the austerity years. It also begs the question: what is the government going to do next to reverse the worrying trend in health inequalities?

The NHS *Long-Term Plan* and recent consultation on the *Prevention Green Paper*, both of which were published under the current health secretary Matt Hancock, provide some steers. Encouragingly, there is a focus on health inequalities in both and there is every possibility that a break with current trends is possible.

We've known for a long time that healthcare provided by the NHS only accounts for approximately 10 per cent of a population's health. The other 90 per cent of health is created through a social process that happens in people's homes, neighbourhoods, workplaces and wider networks.

Marmot makes clear that most of the solutions lie outside the NHS and the job of reducing health inequalities depends on a wide range of organisations. These include local authorities, housing, police, education, patient groups and communities themselves, some of whom are doing some great work at tackling inequality.

Indeed, the report emphasises that to tackle inequality, society needs to enable all children, young people and adults to maximise their capabilities and have control over their lives.

To be well, people need sufficient control over the circumstances of their lives, meaningful and constructive contact with other people and confidence to take action with others to make improvements. These are the “3Cs” of health creation.

When people have enough of the 3Cs, this helps to build protective factors that keep us as healthy and productive as possible. Conversely, insufficient levels of the 3Cs causes people to struggle in life and experience worse health outcomes.

This being the case, it follows that part of the role of those working to improve health, whether they work for the NHS or outside it, must be to enable people to increase levels of control and confidence, through meaningful and constructive contact with others.

At the same time, we must create and develop healthy and sustainable places and address wider structural causes of inequalities, such as insecure employment, poor-condition private homes and a welfare system that leaves people juggling their rent, food and fuel bills.

Making a sustainable and consistent impact on health inequalities over the next ten years is going to require a much better understanding of the complex process of “creating health” and a commitment to sharing power with communities.

There are many examples of communities creating their own health enabled by skilled professionals. Indeed, there is plenty of evidence, across sectors, to support and further develop health creation as a health discipline in its own right.

Now is the time for the government to develop and invest in a new cross-sector social health service to improve health and reduce health inequalities in the community. This needs to be everyone's job – all sectors and communities themselves working as equal partners with devolved funding – and it needs to have health creation at its core. ●

Brian Fisher
Chair
New NHS Alliance

Merron Simpson
Chief executive
New NHS Alliance

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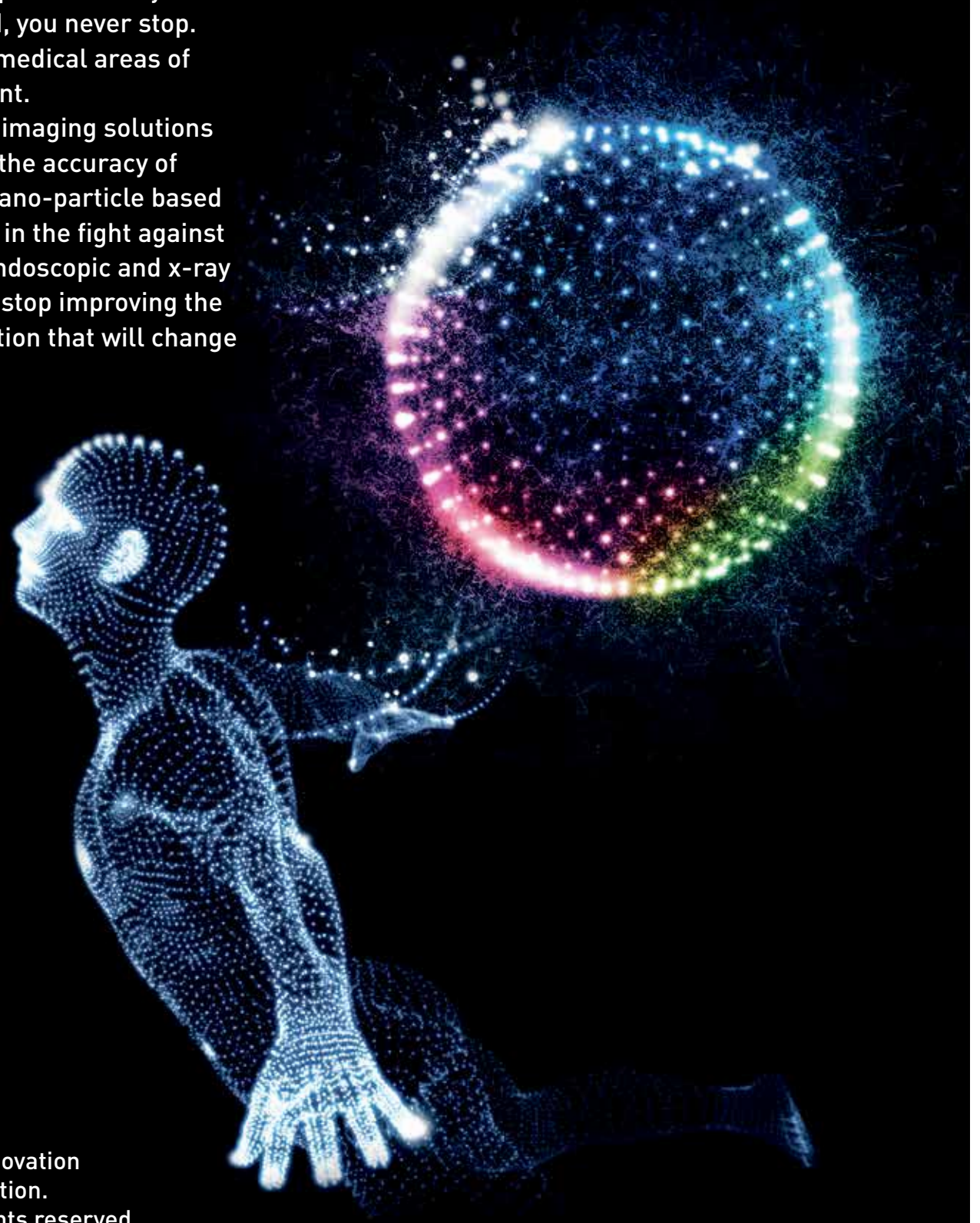

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