In the biggest shake-up of GP services in 15 years the NHS is pledging ‘to fund an army’ of 20,000 support staff to boost primary care networks and allow GPs to spend more time with patients.

Announcing its ‘five-year deal’ for primary care recently, NHS England chief executive Simon Stevens said: ‘This five-year deal unarguably represents the biggest boost to primary care in more than 15 years, giving patients more convenient services at their local GP surgery while breaking down the divide between family doctors and community health services. It provides the practical foundation for the big service improvements in the NHS Long Term Plan.’

NHS England ‘will fund an army of 20,000 more staff to help GP practices work together as part of a local primary care network’. The new recruits, pharmacists, physios, paramedics, physician associates and social prescribing support workers, ‘will free up GPs to spend more time with patients who need them, most as well ensuring patients have access to a wide range of services at their local practice.’

The plan added: ‘This builds on the increase of 5,000 extra practice staff working with GPs over the past four years. Core funding increases will also support more practice nurses and GPs, with the number of young doctors choosing to train as GPs now at a record high.

The NHS Long Term Plan will see funding for primary medical and community care increase as a share of the NHS budget for the first time in the health service’s 70 years. It aims to help join up care with neighbouring practices of any size working in multi-disciplinary teams with other community services. The target is to improve care for frail and elderly patients and others with long-term and complex conditions.

However, GP practices already face a recruitment crisis, due to a combination of workload, pension tax changes and ageing staff. In many areas, 25% of GPs are over 55 and facing retirement, while there is a lack of new trainee doctors waiting to take over practices.

Nuffield Trust chief executive Nigel Edwards said: ‘This new contract is a radical step. GPs will be able to offer a much wider range of services, and this should help relieve some of the pressure they are under. It is likely to lead to a historic move away from GPs as freestanding small businesses. We’re pleased this is being done through the carrot, not the stick.’

But he added: ‘We need to hear more about where these staff are coming from – after all, many other parts of the NHS have their own serious shortages.

It’s still not clear what is happening to GP and practice staff pay, but this will be a vital question.

‘National and local NHS leaders will also need to make sure they support these networks so that they can handle new responsibilities and funding on this scale.’

By Michael Burton

NHS pledges to ‘fund an army’ to boost primary care networks

INSIDE: Health chiefs: NHS funding boost makes hospitals ‘better-equipped’. See p4
Young patients ‘may come to harm’ while waiting for mental health services

By Paul Dinsdale

Nearly all family doctors (99%) fear that young people may come to harm while waiting for specialist mental health treatment. As many as 90% of GPs think mental health services for young people aged 11-18 are inadequate and that they have deteriorated over the last two years, according to research.

Almost four in five GPs (78%) now say they are worried that not enough of their young patients can access treatment for mental health problems.

Stem4, a charity for prevention of mental ill health in teenagers, says more young people are experiencing mental health difficulties, but that there are long waiting times for treatment and referral pathways are limited. It says that strict eligibility criteria means that most children and young people are turned away by child and adolescent mental health services (CAMHS).

The survey of 1,000 GPs carried out for the charity found that nine out of 10 GPs (90%) are seeing more young patients with mental health problems than two years ago, while two-thirds (64%) say they find it hard to give young patients the time they need.

In terms of finding help for anxiety problems, 88% of doctors said it was either impossible or very difficult for their patients to access treatment.

Dr Nihara Krause, a consultant clinical psychologist, and founder of stem 4, said: ‘In 2016, when stem4 last surveyed GPs, we found that young people’s mental health services were at crisis point. Our new figures indicate that the crisis continues unabated, and even though this Government has promised more funding, nothing much has changed, except that we now know that more children and young people have a mental health condition: one in nine between the ages of five and 16 today, compared to the one in 10 revealed by previous research.’

‘Figures from NHS Digital now show worrying levels of emotional disorders (anxiety and depression) among young women aged 16-19. These issues now affect 22.4% of this group.’

Since referral pathways are limited, two-thirds of doctors (68%) say they have no choice but to refer patients suffering with an anxiety disorder to CAMHS, even though they know most will be rejected. One-third (32%) now only refer patients with the most severe anxiety disorders, such as obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), or anxiety with another mental health condition.

Health MJ: 3 2 Vauxhall Bridge Road, London SW1V 2SS

For editorial inquiries contact Michael Burton at m.burton@hgluk.com. News editor: Paul Dinsdale.

For display advertising inquiries contact Kasia Brzeska-Reffell at k.brzeska@hgluk.com and for recruitment advertising contact Dave Lawrence at d.lawrence@spacehouse.co.uk. Tel: 01625 614000

Health MJ is produced by the publishers of The MJ as a monthly supplement.

By Michael Burton

If the extra £20bn a year promised to the NHS by 2023 were dependent on the amount of plans being issued by the NHS then the health sector would be quids in.

On the heels of the Long Term Plan, in which every conceivable idea, however embryonic, was thrown into the mix, came the five-year deal at the end of January to expand GP services.

Described as the ‘biggest reform to GP services in 15 years’ (when the GPs are extremely well out of new contracts) the latest plan will ‘fund an army of 20,000 staff to help GP practices work together.’

Forgetting for the moment the fact that the NHS is already chronically short of staff, that idiotic immigration rules make it even more difficult to recruit and that the UK has almost full employment, the plan does however put some detail into aspirations about primary care announced in its Long Term Plan announced last month.

By using pharmacists and other qualified non-GP staff the NHS aims to free up GPs to focus on helping patients ‘who need them’.

The Long Term Plan marks the biggest shift to community and primary health services and prevention since the NHS was launched 70 years ago.

The report is immensely detailed, long on aspiration, especially when it comes to technology, considering the fix machine is still in regular use within the NHS, and ambitious in hoping a greater focus on prevention, lifestyle and diet, and homecare will in the long-term reduce expensive hospital costs.

Few could argue against its principles even if health experts are right to be sceptical about whether they will ever be implemented.

Michael Burton is editorial director of Health MJ
m.burton@hgluk.com
Patients with shoulder pain ‘recover quickly if they stay active’

More than 1,000 people referred for treatment for psychosis by their GP are yet to receive any intervention for the problem, according to the latest NHS waiting times statistics for Early Intervention in Psychosis.

The data shows that 1,183 are still waiting to start some form of treatment since they were first referred, with 10% (131) of those still waiting after 12 weeks.

Almost 600 of those still waiting for treatment are based in the North of England, with 267 living in the Midlands and East of England, 151 in London, 81 in the South West and 89 in the South East. The NHS website states that it is ‘important psychosis is treated as soon as possible, as early treatment can be more effective’ and experts have warned that the NHS needs to start acting on its own advice for the safety of patients and the community.

Psychosis is a mental health problem that causes people to perceive or interpret things differently from those around them, typically involving hallucinations or delusions. Experiencing these symptoms is classed as a psychotic episode and can put the individual and those around them at severe risk.

Dr Maiteen Durrani, consultant psychiatrist and group medical adviser for leading addiction treatment specialists, UKAT, said: “It is extremely worrying that in a developed country in 2019, over a thousand vulnerable and scared people are continuing to suffer with a serious mental health problem and could well be trying to mask their symptoms of paranoia, hallucinations and/or delusions with drugs or alcohol.”

NHS guidance also notes that people with psychosis have a higher than average risk of self-harm and suicide.

Social fragmentation ‘will have impact on mental health services’

By Paul Dinsdale

Social fragmentation in England has increased over a 10-year period, and will have implications for health and social care, says a study.

The study by researchers at Manchester University used data from the last two censuses in 2001 and 2011, and shows the trend is particularly acute in the North of England.

The rise was mainly driven by increases in the average number of single people across the country and the numbers of privately rented households across the country. Between 2001 and 2011, there was a 7.5% increase in single people and a 90% increase in the privately rented household statistic, says the research team.

The study, says its authors, has profound implications on mental health provision in England. Social fragmentation – the absence of connections between individuals and society – was defined by the team as the numbers of private renters, single people, migrants and one-person households in a community.

Areas in London, Yorkshire and Humber and the South Central regions had the largest increases in private renting. Similarly, the North East and West Midlands had the largest increases in single people. London, however, had the highest levels on both factors.

Local neighbourhoods in Liverpool, Sheffield, Manchester and Leeds had the highest levels of social fragmentation in the country in 2011. London had the most neighbourhoods ranking high in social fragmentation and five local authorities with the highest levels were all in London. They were: City of London, Westminster, Kensington and Chelsea, Camden, and Hammersmith and Fulham.

In comparison, areas in Northumberland, Warrington, Kettering, Solihull and Southend-on-Sea had the lowest levels of social fragmentation. The local authorities of Rochford, Chiltern, East Dorset, South Staffordshire, and Hart were the “least fragmented.”

The study, published in BMJ Open, also found that urban areas are more socially divided than the countryside, where people are more likely to lead more isolated lifestyles.

Migration, however, did not appear to impact on levels of social fragmentation – as measured by the numbers of people that move into an area from within the UK and from outside the UK.

Health economist Christos Grigoropolos, a co-author of the study, said: “The increases in private renting are likely to be a result of poor availability of social housing, unaffordable housing for ‘generation rent’, increasing common short-term employment and rising student numbers.

‘The increase in the numbers of young professionals, students and divorces over the period are likely to have contributed to the rising numbers of single people.’

Patients with shoulder pain ‘recover quickly if they stay active’

People are more likely to recover from shoulder pain if they have the confidence to carry on doing most things, despite their pain, according to research.

Researchers from the University of East Anglia and University of Westminster have studied more than 1,000 people undergoing physiotherapy for shoulder pain.

They found that those who expected physiotherapy to help them were likely to recover more than those who expected minimal or no benefit. In addition, people suffering more pain, who were confident in their ability to still do most things despite their pain, were likely to recover better with physiotherapy than those suffering less pain, but who were not as confident.

Lead researcher Dr Rachel Chester, from UEA’s school of health sciences, said: ‘We studied shoulder pain which is very common, affects people of all ages and often causes substantial loss of movement and function, as well as night pain. Physiotherapy management is effective for many people with shoulder pain, but not everyone. We wanted to find out what factors indicate why some people do better than others. The team investigated the strength of a patient’s belief or confidence in their own ability to successfully complete tasks and reach a desired outcome despite being in pain – known as ‘pain self-efficacy’.

The study included 1,030 people attending physiotherapy for the treatment of musculoskeletal shoulder pain in 11 NHS trusts and social enterprises across the East of England.

The Duchess of Cambridge has launched FamilyLine, a new confidential helpline for families, after research by the national charity Family Action found family members want to talk about problems but don’t know who to talk to.

One in three people (32%) want to talk to someone about money, health, or relationships issues. FamilyLine is open weekdays evenings and weekend mornings to support people struggling with any aspect of family life, such as parenting challenges, family conflict, relationship difficulties or mental health and wellbeing. Calls, emails or text messages are answered in confidence by a team of trained volunteers under the supervision of Family Action experts.

FamilyLine is open Monday to Friday 6pm-1pm, Saturday and Sunday 10am-1pm and can be reached by Freephone: 0800 802 6666, text message: 07537 404 282, email: familyline@family-action.org.uk.
Children who have faced abuse ‘have higher suicide risk’

Children who experience physical, sexual, and emotional abuse or neglect are at least two to three times more likely to attempt suicide in later life, according to the largest research review carried out on the topic. The analysis of 68 studies by psychologists at the University of Manchester and University of South Wales revealed that suicide attempts were three times more likely for people who experienced sexual abuse as a child. They were also two-and-a-half times more likely for people who experienced physical abuse as a child, and a similar increased risk for those who experienced emotional abuse or neglect as a child. The research, published in the journal Psychological Medicine, found that children who experienced multiple abuse are as much as five times more likely to attempt suicide.

In addition, as those who experienced abuse as children get older, the risk of suicide attempts increases, it found. Those not in contact with mental health clinicians were found to be at the highest level of risk. The 68 studies were carried out across the world, including 262,000 adults aged 18 years or older who were exposed to childhood abuse and neglect.

Dr Maria Panagioti, from Manchester University, and based at the NHIR Greater Manchester patient safety translational research centre, led the research team.

She said: ‘Around one adult in every three has experienced abuse as a child. This study conclusively gives us solid evidence that childhood abuse and neglect is associated with increased likelihood that they will be at risk of suicide as adults.

Health chiefs: NHS funding boost makes hospitals ‘better-equipped’

Senior NHS managers say that hospitals in England are ‘better equipped’ to deal with the surge in demand for health services during winter due to the extra £420m given to the NHS before Christmas. The Department of Health and Social Care wants to avoid a repeat of last year’s winter crisis, which was the worst on record. Health minister Stephen Hammond called on the public to support NHS staff during the busy winter period by using alternatives to A&E for minor illnesses and speed up test results, which helps to manage the number of patient beds in use.

NHS England said the funding is making it easier to transfer patients from A&E to different wards and speed up test results, which helps to manage the number of patient beds in use. Around £240m of the extra funding was also made available to local authorities for adult social care to help reduce pressures on the NHS by getting patients home more quickly, freeing up hospital beds across England.

Councillors are expected to provide more than 30,000 additional packages of care to support people at home, and will also use the funds for an additional 9,000 care home beds. Ambulance trusts were given £36.3m to pay for being delivered before Christmas. The Department of Health and Social Care wants to avoid a repeat of last year’s winter crisis, which was the worst on record. Health minister Stephen Hammond called on the public to support NHS staff during the busy winter period by using alternatives to A&E for minor illnesses and speed up test results, which helps to manage the number of patient beds in use.

One slice of the extra £420m has gone towards upgrading emergency departments

By Paul Dinsdale

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Government ‘needs better NHS strategy’, say patients

By Paul Dinsdale

Patients cannot be assured that the NHS’s future is protected by the Government’s new long-term plan, says a patient watchdog group.

Rachel Power, chief executive of the Patients Association, said that although the plan had ‘undoubted strengths’, the Government had not gone far enough in its strategy to ensure high quality patient care.

She said: ‘Its commitment to shifting the focus of NHS services much more into the community is exactly the right priority. So it’s highly unfortunate that failures outside the plan itself mean that on its own it cannot safeguard the future of the health and social care system.

‘The Government still lacks any sort of strategy for health and wellbeing, and has not even published its Green Paper with proposals to end the ongoing social care crisis.

‘Last year’s funding announcement promises another five years of below-trend growth for the NHS, on top of the eight it has just endured, and excluded key areas of expenditure. The serious and growing shortages in the health and care workforce are a major threat, and could even make the plan undeliverable.

‘NHS England has done what was asked of it in terms of developing a coherent plan. The Government now needs to do its part and get serious about addressing the substantial strategic problems that still pose major threats to the health and care system.’

The Royal College of Physicians (RCP) also welcomed the plan, but expressed some concerns. RCP registrar Professor Donald O’Donoghue said: ‘The NHS Long Term Plan published today outlines specific areas of improvement in areas such as heart disease, stroke and cancer that will provide much needed sustainability to significant parts of the NHS. We welcome the focus on changing models of working with greater integration, and changing outdated systems such as outpatient clinics.

‘The plan sets out some small but important changes that should help improve doctors’ morale, from changes to training programmes permitting ‘step in step out’ training and increasing focus on the health and wellbeing of staff.

‘However if we are to see a real reduction in burnout rate [of doctors], the only way to achieve this in the medium to long-term is by dramatically increasing medical school places, and the supply of doctors.’

A&E waits improve in December compared with 2017

Latest combined performance figures from the NHS show that there was a small rise in A&E attendances compared with the same period in the year before.

There were 2.05 million attendances in December 2018, 2.1% more than in December 2017.

A&E attendances in the last 12 months were 3.6% higher than the preceding 12-month period.

The number of emergency admissions in December was 544,904, 4.6% more than in December 2017. Admissions in the last 12 months period were up 5.7% on the preceding 12-month period.

The number of attendances admitted, transferred or discharged within four hours was 1.77 million – 86.4% of the total. This is a 3.9% increase on the equivalent figure for December 2017 (1.70 million seen within four hours).

The number of patients seen in over four hours was 277,646 compared to 300,893 in December 2017, a decrease of 7.7%.

Nuffield Trust chief economist Professor John Appleby said: ‘These figures show that the health service is coping well so far with winter pressures despite increasing demand, thanks to the sustained efforts of staff and realistic planning.

‘But we must remember that nearly all key targets have been missed for years now – only five major A&E departments in the whole of England actually met the four hour target in December.

‘With the new long-term plan, those in charge of the NHS must now answer the big question of whether it is going to start actually meeting its commitments, or scrap and replace them.’

Doctors welcome fall in deaths from stroke in Scotland

Doctors in Scotland have welcomed a fall in the number of deaths from stroke, but say more remains to be done to improve older people’s health.

The incidence rate for stroke has decreased over the last decade by 12.1%. In the last decade, stroke-related deaths have decreased by 38.7%. The mortality rate for stroke in the most deprived areas was 56% higher in 2017.

Professor Derek Bell OBE, president of the Royal College of Physicians of Edinburgh, said: ‘Scotland has historically been exposed to the risk factors associated with stroke, such as high blood pressure and smoking. While it is encouraging that fewer Scots are now suffering with this illness – there has been a 12.1% decrease in stroke incidence rate over the past decade – there is still much work to be done. For example, we note with concern that stroke-related deaths in Scotland were 36% higher in the most deprived areas than in the least deprived areas, in 2017.

‘There must be an integrated approach, based on person-centred care, with a wider focus on prevention.’

Government strategies, including the stroke improvement plan and the diet and healthy weight delivery plan, are critical to delivering improvement in treatment outcomes. But this must be supported by the appropriate resourcing of acute stroke treatment in hospital, and hospital doctors in this field must be given the time to teach, train, and research.

‘We support the drive to ensure that thrombectomy services are available for the people of Scotland. This treatment, if used early, can reduce disability and improve chances of recovery.’

www.themj.co.uk/health
Technology’s helping hand

Glen Garrod, president of the Association of Directors of Adult Social Services, says the health and social care sectors have yet to embrace the opportunities from technology for transforming lives.

When you see the difference that digital technology makes to people’s everyday lives, it is hard not to be something of an evangelist. It can be anything from apps that help people to manage mental health issues to gadgets enabling those with disabilities and long-term conditions to maintain their independence.

Are we in health, social care or housing services really embracing technology in a way that will realise its true potential? Have we recognised the creativity and opportunity that people with a personal budget of any description bring to influence and shape their own solutions through increased use of digital technology?

When I became president of the Association of Directors of Adult Social Services (ADASS) in April 2018, I referred to digital technology as an ‘opportunity’, along with housing, integration and personalisation. It transcends all. I also referred to a ‘truly transformative digital offer, where people might one day self-assess and self-serve online’ – at least for some.

We also have a health and social care secretary of state who ‘gets’ technology. Matt Hancock recently launched The Future of Healthcare, which outlines what is needed to enable the health and care system to make the best use of technology to support preventative, predictive and personalised care.

ADASS has produced a publication with the TEC Services Association (TSA) and Think Local Act Personal (TLAP) called TEC Stories. The idea was to highlight the way technology is transforming lives by giving people the chance to tell their own stories. Among them is Colin, who has complex disabilities and uses a new digital tool along with his iPhone to communicate, shape the support he receives and do everyday things like online banking and ordering takeaway meals. As Colin himself says: ‘Online, my disabilities make no difference to what I can do.’

Another is Albert, who has dementia and is using assistive technology that reminds him when to take medication. This means he can play online games with his grandson and helps him in all manner of ways. As his daughter Rhonda puts it: ‘The result is Dad feeling relaxed and empowered and, importantly, himself.’

TEC Stories also features Loren, who was in children’s care and struggled with mental health issues. She used an app provided by Sunderland City Council that enabled her to have much more input into statements prepared by her social worker. Loren found it empowering and since leaving care it has given her more confidence to speak to her support worker. Her story has a particularly happy ending as Loren is now working for a children’s trust and has ambitions to become a social worker.

What comes across from these and the many other stories both in this publication and elsewhere, is the way people in need of support are using their innovation and creativity to make the most of digital technology. This technology often comes in the shape of everyday gadgets like smartphones, tablets and voice-controlled devices.

In social care we are rightly proud of what personalisation and personal budgets has meant for hundreds of thousands of people. Our NHS colleagues are clearly on the same journey with personal health budgets and integrated personalisation commissioning pilots – no doubt with a central role in the next NHS five-year plan.

If we give people the chance to determine how best to meet their own needs, time and again we see examples where they find creative solutions that use everyday kit that is found on the high street.

The more we free people to find their own technological solutions, the more they will do so. This is our enlightenment.

In reality, the solution to meeting many people’s needs for GP super-practices the right

GP practices are under pressure from escalating costs, staff turnover and rising demand, especially from the elderly. Terry Tobin suggests a new model for GPs.

Primary care organisations continue to face severe funding pressures. GP practices are having to manage increasing costs, at the same time as meeting quality standards. Equally, securing the income they need is becoming more challenging with the move to tendering for locally enhanced services.

Even with the £3.5bn pledged by the Government to primary care by 2023/24, there is a real risk that the current system will become unsustainable.

It is not just financial challenges which are placing the system under strain. Staffing and recruitment are becoming more difficult, in part due to the ageing profile of GPs and clinical support staff. In many areas, 20–25% of GPs are aged 55-plus and nearing retirement. The problem is made more acute because there is not a strong pipeline of trainee healthcare professionals wanting to take on roles in primary care.

In certain parts of the country, there has also been significant population growth – due to an ageing population who not only have an increased life expectancy, but are also living with more long-term health conditions. These developments are leading to longer GP lists and rising demand for appointments.

All these pressures have to be managed within the wider context of national initiatives and long-term change programmes such as sustainability and transformation plans, new care models, transforming care partnerships and integrated care systems. If change programmes are to be successful, new operating models and approaches from providers, contractors, commissioners and GPs will be needed.
Sticking to traditional GP practice models will result in many becoming unviable. For those willing to embrace change, there are solutions that can help tackle the funding, recruitment and demand challenges GPs face.

GP super-practices, which are created through a formal merger of a number of independent GP practices into a single larger entity, are a perfect example. The number of practices involved can vary and the specific model can be tailored to local needs.

The advantages of merging with another GP is that practices are very similar organisations, with the same purpose of treating patients in their local environments. They also tend to have similar operating models and the same regulators, income sources and cost bases. These factors combined make it easier for practices to merge successfully.

There are a number of potential financial, non-financial and qualitative benefits that can be achieved through GP super-practices:

- **Economies of scale help improve profitability and sustainability.** This includes providing potential cost-savings in administration and locum costs, such as sharing cover or offering the potential to employ salaried doctors, medical insurance and professional services costs, such as accountancy and legal fees. A super-practice will also have greater bargaining power with suppliers, allowing it to secure better value for money.

- **Financial benefits can be secured through improved organisational design, greater operational efficiency and an amalgamation of back office functions.** A super-practice should also provide opportunities for increased income, for example, by being able to carry out more work in a primary care setting and boosting Quality Outcomes Framework income.

- **Improved recruitment and retention of staff can be achieved due to the better working environment in a super-practice and the more effective and efficient use of staff.** It also provides opportunities for greater career development for both clinical and administrative staff.

- **Improved quality of care can be gained from more standardised operating procedures, better peer support for clinicians, greater opportunities for specialism and improved supervision within practices.** Before making the decision to merge, GPs need to consider what their particular needs and challenges are and what they want to achieve from the new model.

In particular, they need to understand that to maximise the benefits of a merger they must give up some degree of control, but they have to consider how much.

They should also consider how they can retain local connections with patients and staff, the impact on care quality and any advantages a merger may bring to recruitment.

Whatever model is chosen, careful planning and preparation are essential for the creation of effective and efficient super-partnerships – including a focus on getting the right partnership agreement in place and ensuring stakeholder engagement from the outset.

There is no ‘one-size-fits-all’ solution – each super-practice will only succeed if it is tailored to the specific requirements and circumstances of its local stakeholders.

Terry Tobin is senior manager, public sector healthcare at Grant Thornton UK LLP.
Intelligent connectivity for intelligent healthcare

To deliver the digital ambitions of the NHS and tackle its increasing demand requires intelligent connectivity, the technology that ensures critical applications and information are always available at the point and instant they are needed, says Keiron Salt.

Without good and reliable connectivity the technology we use will not work. Connectivity is a key foundation in realising the NHS’s ambition for digital transformation.

The next generation of intelligent connectivity is vital to empower the NHS professionals and citizens to address the increasing demand on the NHS. Intelligent connectivity enables critical applications to be prioritised, provides network agility and performance for the cloud and flexibility of physical connectivity. It improves organisational efficiency through increased flexibility, agility, security and efficient use of bandwidth. It gives you greater control of your network, making it smarter, faster and safer. Intelligent connectivity underpins highly critical and bandwidth-hungry solutions such as:

- Community-based mobility solutions and preventative care for citizens.
- Specialists collaborating together to review high quality MRI scans and X-rays.
- Video consultation between doctors and patient on care reviews.

**SDN v traditional networks**

Intelligent connectivity delivers a software-defined network (SDN).

SDN and network function virtualisation capabilities are now mainstream, enabling greater control, flexibility and visibility across not just the organisation’s network but across applications and security. The traditional network is becoming increasingly complex to manage securely and reliably. This is compounded by the ambitions and pace of digital change, the changing profile of applications, use of the cloud, increased bandwidth demands and security threats.

**Responsiveness for critical applications**

Health applications are critical in delivering the best and most effective care. The latest health applications are highly data-intensive, driving demand for high levels of bandwidth with low latency e.g. large medical images.

Video conferencing and collaborating on medical data also drives significant demand on the network, often across multiple physical sites. The critical health applications must be responsive and work for the end users. Intelligent connectivity enables this with usage analytics in order to prioritise the right applications and their use of bandwidth. This means critical applications always take priority ensuring that staff have the information at the critical times.

**Agility to underpin the cloud**

In my conversations with NHS chief information officers, many are on the journey to adopt cloud-based solutions, often starting with Microsoft Office 365. They are starting to see the benefits to their organisations of rapid deployment, agility and reduced total cost of ownership.

As the cloud brings agility, the connectivity needs to be agile, too.

Accessing cloud applications via traditional wide-area network architectures can traverse unnecessary hops and introduce additional latency with more complex time-consuming change process.

Intelligent connectivity offers the agility to quickly set up connectivity based on business usage of applications, self-service and intelligently steering traffic based on where the applications are hosted without the unnecessary latency.

**Flexibility to use the right physical connectivity**

Intelligent connectivity can be delivered using a combination of internet and multi-protocol label switching (MPLS). This offers the ability to make use of carrier-grade MPLS and internet, consumer grade internet or mobile networks such as 4G and 5G.

This provides greater flexibility and new possibilities of a much broader geographical reach and flexibility to quickly on-board new sites and also access the internet directly. It underpins agility as estates change and enables flexible working in the community. It also offers a cost-saving for appropriate scenarios, where the use of lower cost connectivity such as the internet can be used for additional contingency, testing new services or replacing dedicated circuits.

Embedding security

In order to retain the public’s trust, patients’ sensitive personal data must stay secure and confidential. Cloud adoption, use of the internet and flexible working is challenging the traditional security model.

Visibility across the network is now critical in defending against the continuous security threats. SDN provides a more agile and controlled security with end-to-end encryption across the entire network with all endpoints authenticated via key-exchange.

As the NHS looks to a digital future, intelligent connectivity is fundamental to its digital roadmap. Without it, there will be shaky foundations unable to cope with the increasing complexity and demand.

To find how intelligent connectivity can meet your challenges, join us at: *Is the public sector network ready for the digital age*, the Public Sector SD-WAN webinar on 11 February and the SD-WAN exploration day with BT and IDC on 28 February. Contact christina.chan@bt.com to attend.

Keiron Salt is chief information officer, health, for BT.

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