FOR HEALTHCARE LEADERS
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TELEHEALTH

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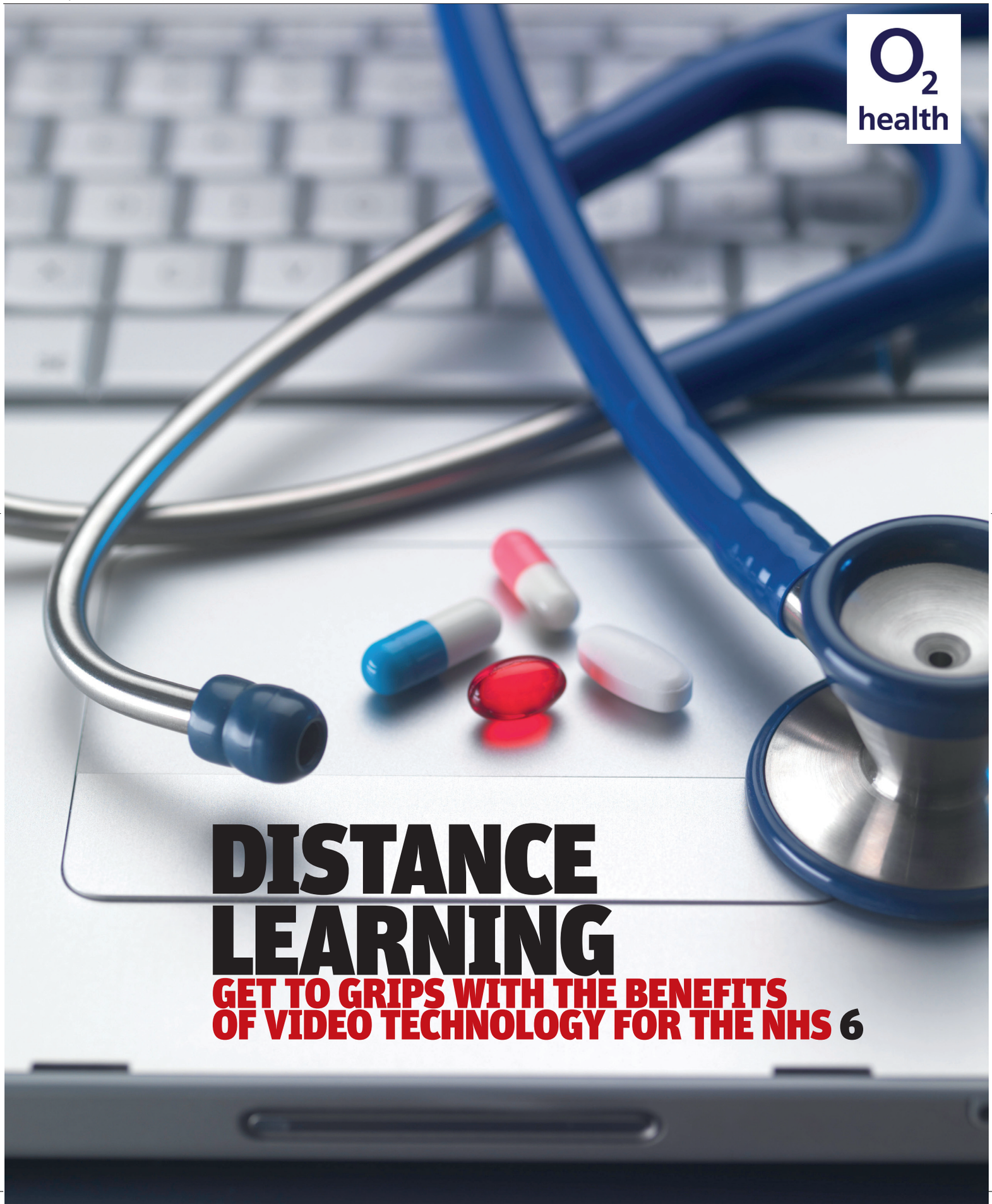

DISTANCE LEARNING

GET TO GRIPS WITH THE BENEFITS OF VIDEO TECHNOLOGY FOR THE NHS 6

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COMMISSIONING

Health secretary Jeremy Hunt has declared that he wants to free people with long term conditions from the 'merry-go-round' of doctors' surgeries and hospitals – and sees telehealth as the way to do that. A year on from the launch of 3millionlives campaign – which aims to bring the benefits of telehealth to three million people by 2017 – the new clinical commissioning groups are being urged to redesign systems to put telehealth at their heart, as well as exploit the power of technology to improve partnership working with local authorities. Page 2

TECHNOLOGY

A shortage of stroke specialists has driven the creation of a pioneering video platform in the north west that allows consultants to work remotely, offering second opinions from hundreds of miles away. The project uses telecarts – computers with high definition cameras and microphones that link to consultants' laptops – but video technology for ordinary smartphones could also be used to access remote expert help, potentially revolutionising the quality of care. Page 6

SUPPLIERS

A report looking at the readiness of suppliers to meet future telehealth technology needs describes an 'embryonic, small-scale and fragmented' industry where firms are reluctant to invest. Encouraging growth of the industry is vital – and that will require better communication between suppliers and the NHS, as well as creative partnerships between firms, providers and government. Page 8

Supplement editor
Daloni Carlisle

FOREWORD

NIKKI FLANDERS

Answer the mobile call

The UK is facing a variety of health and social care challenges – an ageing population, a growing number of people in long term care and an economic squeeze on public services. As a result, healthcare providers need to do a lot more with a lot less.

At O2 Health, we believe mobile technology has great potential to give people more independence as well as creating efficiencies in the NHS and other care organisations.

Today, most of us are accustomed to using connected mobile devices in our daily lives, from simple communication to shopping, banking, entertainment, even exercising and dieting. But we think this goes further – the most exciting applications of mobile technology for us are in telehealth and telecare and we think these can make a real and meaningful differences to people's lives.

At the Healthcare Innovations Expo in March, we launched our new telehealth service Health at Home. The service enables healthcare providers to remotely monitor their patients' health conditions in order to make informed clinical decisions about their care.

Patients use a tablet and health peripherals to regularly check vital signs and fill out health surveys specific to their needs. The information is sent back to their care provider in real time and any irregularities are automatically flagged. Importantly, the patient's condition can be monitored over time, trends can be identified and action taken by both patient and provider to manage their care more effectively.

We have been running two Health at Home trials in the UK with NHS Lothian and North Somerset Community Partnership for people with chronic obstructive pulmonary disease and heart failure. These trials have been invaluable in helping us to shape the service further. So far, feedback we've had has been that the system's flexibility is a real differentiator on the service side, while for patients it is all about reassurance.

We have also launched our mobile care service, Help at Hand, for people with long term conditions or those who feel frail or vulnerable when on their own. The service, which is available on the high street, consists of a small mobile device that connects, at the touch of a button, to a 24/7 call centre where help is available and appropriate action can be taken. It also has a "fall down" detector and GPS capability. The mobility of the service means that users can have greater independence with the reassurance for both them and their loved ones that help is on hand if they need it.

O2 Health is committed to finding new possibilities for the application of mobile technology, for the benefit of our customers and the wider healthcare system.

Nikki Flanders is managing director of O2 Health

MILES AYLING ON INNOVATION

The NHS faces the same challenge as every other health economy across the globe – how do you drive improvements in quality and value at a time of significant financial pressure?

Couple that with a growing and ageing population – it is estimated that there will be two billion men and women worldwide over 60 years old by the year 2050 – then add to that increases in our own capability and rising public expectations of health services, and the challenge becomes even greater.

The bottom line is that health and healthcare will continue to take up a greater share of this country's GDP unless we can transform the way that we deliver healthcare.

It's becoming clear to more and more people that the answer does not lie in doing more of the same – that just won't be enough. And more of the same but just doing it more efficiently won't be enough either. The only way to meet this challenge is innovation – both incremental and disruptive.

We need to change the way healthcare is delivered, where it is delivered, who delivers it, and how patients access services. We can't do the same thing over and over again and expect different results.

It's not just about recognising that change has to happen. It's about creating the right culture and the right ecosystem for innovation

'It's about the right culture. You need an environment that accepts and encourages experimentation'

to flourish. You need to create an environment that accepts and encourages experimentation.

NHS chief executive Sir David Nicholson has laid down the challenge to all of us by saying that "innovation must become core business for the whole of the NHS".

Doing this top down will not work. Ideas are not developed and spread by the centre, they come from the grassroots – from people who work in the NHS, who see opportunities to make improvements in the care and the services that they deliver.

As Sir David says: "We have the potential to create the best health system in the world, enhancing the quality of life for people with long term conditions, preventing people from dying prematurely, helping people to recover from ill health and ensuring that patients have a positive experience of care." While this is a significant challenge, it is also an opportunity – and one that we cannot afford to miss.

Miles Ayling is director of innovation and service improvement at the Department of Health
www.dh.gov.uk

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DH Department of Health

COMMISSIONING

IT'S TIME FOR YOUR SCREEN TEST

CCGs are expected to realise huge benefits from telehealth – but that means total system redesign. By Jennifer Trueland

Over the course of this year, 100,000 people in England are due to benefit from telehealth. That's the commitment from health secretary Jeremy Hunt, who, like other senior health service figures, has nailed his colours firmly to the assistive technology mast.

Speaking at an Age Concern conference in November, he said he wanted to free people with long term conditions from the "merry-go-round" of doctors' surgeries and hospitals – and he was quite clear that telehealth was the way to do it.

The government launched its 3millionlives campaign a little over a year ago, with the aim that patients with long term conditions – three million of them – would benefit from telehealth by 2017.

The initiative is due to take a big step forward over the coming months when contracts are expected to be agreed, which should mean that leading technology companies sign up to supplying the NHS with technologies and services at no up front cost.

This will, of course, be good news for clinical commissioning groups, whose responsibility for designing local services kicks off officially at the beginning of next month, and who will be looking for ways of getting the biggest bang for the health service buck.

So are CCGs likely to embrace teleheath and other forms of assistive technology, such as telecare and telemedicine? What support is out there to help them realise the benefits for patients – and for clinicians? And is the wider health and social care landscape prepared to work together to ensure that systems make the best – and most efficient – use of technology?

"I think that among CCGs there is a general feeling that technology brings opportunities," says Dr Johnny Marshall, a GP in Buckinghamshire, who is interim partnership development director at NHS Clinical Commissioners, the membership body for CCGs.

"But I think it's about people and patient empowerment. People are using technology in other areas of their lives, and don't see why they shouldn't use it in looking after their health as well."

Dr Marshall, who is (among several other roles) an associate director at the NHS Confederation and was until recently an associate member of the executive team at the NHS Commissioning Board, is at the heart of supporting CCGs in their commissioning work – and in feeding back the views of GP commissioners to policy makers and national organisations.

He believes that technology can play an important part in helping the health service to meet the well known challenges of growing demand from an ageing population alongside the need for ever higher quality and value for money. But, importantly, he believes that it has to be at the very centre of services, rather than a bolt-on. "It has to be part of wider system redesign – we have to look at doing things differently," he says.

In some parts of the country this wider redesign is already happening. For example, in Kent and Medway an acute and community trust are working together to identify people who are frequent attenders at A&E, assessing their suitability for telehealth, then fast tracking them on to it.

"This approach should reduce the number of times a person attends hospital and helps them manage their health more actively," says Amanda Rimington, senior associate for assistive technology for Kent and Medway Commissioning Support (the area's NHS commissioning support unit).

In Kent and Medway, as with many other parts of the country, health and social services are working together to make the most of assistive technologies, be they

CASE STUDIES OVERLEAF ▶

ALAMY

telehealth, telecare or telemedicine.

This joint working should receive a boost under England's new commissioning regime, according to David Rogers, chairman of the Local Government Association's Community Wellbeing Board, who believes that health and wellbeing boards – which sit in local authorities, and were set up as part of the health and social care act reforms – will be key.

"The Local Government Association has been very supportive of the concept of health and wellbeing boards, and shadow boards started very early in the process. Some have made particularly good progress in terms of building relationships between local authorities and the clinical commissioning groups," he says.

Health and social care services working together is nothing new, he says, but adds that the new commissioning world – and the involvement of health and wellbeing boards – gives it renewed emphasis and energy. Bringing directors of public health back into local authorities is important too, he says.

Mr Rogers believes it's up to health and wellbeing boards, as strategic bodies, to set the priorities and parameters to which commissioners will work, be they GPs in commissioning groups, or local authority social care commissioners.

'For the person needing the service, it should look and feel seamless, whatever is happening in the background'

"[Commissioners of care] should be working towards the same objectives," he says. "For the person needing the service, and their families, it should look and feel seamless, whatever is happening in the background – they shouldn't feel there are barriers; they shouldn't see the joins. And, if we can save money in the process – in these times of austerity – then that's good too. We want to get as much from the public pound as we can."

Although the health and wellbeing board determines how commissioning decisions should be made, which should mean they are consistently applied across services, the personalisation element is also important, he adds, with clients feeling that the services are tailored to their needs.

Some of the issues – such as who decides whether something is health (and free to the user) or social care (which might be charged to the user) – will not change as a result of the new system, he concedes, but adds that this is nothing new. It's up to the health and wellbeing board to do its job properly so that everything is clearly set out at the start, he adds.

The benefits of putting assistive technologies centre stage are potentially immense. In December 2011, the Department of Health released initial findings from the Whole System Demonstrator programme, believed to be the largest randomised control trial of telehealth and telecare. This showed that using telehealth could result in a 20 per cent reduction in emergency admissions, a 15 per cent reduction in visits to accident and emergency departments, and a 45 per cent reduction in mortality.

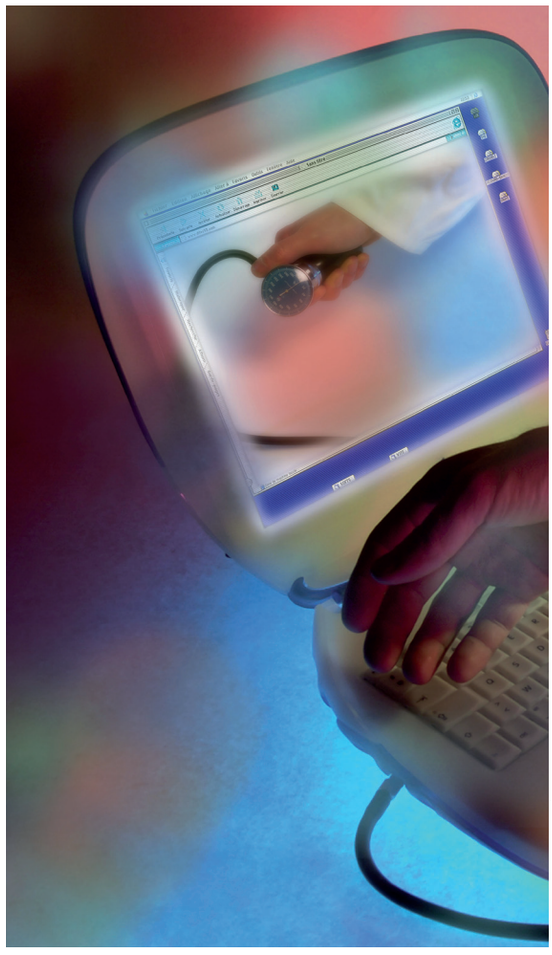
Obviously this has an impact on the bottom line for health services, and potentially for social services too.

But for Alison Davis, head of innovation and lead for advanced assistive technology at Kent and Medway Commissioning Support, it's about more than that. "Innovations like these can make a real difference to patients, improving the quality of their lives – while also delivering efficiencies for commissioners and providers and the NHS as a whole," she says. ●

COMMISSIONING: CASE STUDIES

'THE BEST TECH IN THE NHS'

Jeremy Hunt's glowing tweet about what he saw in Airedale reflects the already impressive achievements of some of the pioneers of telehealth around the country



KENT AND MEDWAY

In Kent and Medway, around 450 people are actively using telehealth at any one time; the aim is to increase that to 10,000 in 2013-14.

The area is one of the pathfinder sites for the government's 3millionlives campaign, set up to bring the benefits of telehealth and telecare to many more people with long term conditions. It was also a Whole System Demonstrator site, with around 2,000 local participants.

Kent and Medway Commissioning Support (KMCS) is leading work on behalf of all eight clinical commissioning groups in the area, working in partnership with Kent County Council (KCC) with the aim of developing a model for telehealth and telecare on a large scale.

Alison Davis, head of innovation and lead for advanced assistive technology for KMCS, says that delivering integrated health and social care to support people with long term conditions is a high priority for CCGs. "The use of telehealth and telecare is an essential part of this approach, improving outcomes for patients.

"We have a strong partnership approach in Kent and Medway which includes KCC, CCGs, acute and community providers as well as the University of Kent and collaboration with European colleagues.

"We are actively looking at opportunities to enable us to improve people's lives through innovations in healthcare and, through the 3millionlives programme, are including industry in the development of our approach."

KMCS and KCC are working with the technology industry, CCGs and clinical colleagues, including GPs and providers, to define a service specification for the use of technology in clinical pathways, with a number of procurement options for advanced assistive technology to support patient pathways being explored.

Amanda Rimington, senior associate for advanced assistive technology for KMCS, explains: "We are currently developing an outcomes-based model of procurement where industry works collaboratively with providers to deliver improved outcomes for a specific cohort of patients – such as patients with long term conditions. Outcomes include reductions in unplanned admissions and in length of stay in hospital, an increase in independent living and [an increase] in patient-assessed quality of life."

Kent and Medway is also trying to harness patient power as a driver to encourage widespread take-up, says Ms Rimington. "We are also aiming to raise patients' awareness of the benefits of assistive technology to their quality of life so that they start to demand technology where it is appropriate for them," she says.

WORCESTERSHIRE

Charles Huntington is programme manager for assistive technology in Worcestershire, where the county council and local health bodies are working together to develop a joint telehealth/telecare service for the people of the county.

The assistive technology project – the group prefers this term to the more specific telehealth and telecare labels – involves the main players in the local health and social care economy, namely Worcestershire County Council, Worcestershire Health and Care Trust, Worcestershire Acute Hospitals Trust, and three clinical commissioning groups (Wyre Forest, Redditch and Bromsgrove and South Worcestershire).

"We've been offering assistive technology for a number of years now, but it's typically been quite small-scale projects with quite low level equipment," says Mr Huntington. "But last year the idea really caught fire – for some reason it caught the imagination of the powers that be and we're really pushing ahead with it now."

The drivers will sound familiar – as a "net importer" of older people, Worcestershire is very aware of the challenges of providing health and social care in an ageing society. At the same time, there is growing pressure on

NHS and local authority budgets. Assistive technology seems to be a good way to square the circle.

"The Whole System Demonstrator was also pretty clear that it would bring improvements in quality of life," Mr Huntington says. "And when we started to engage with health colleagues we soon found we were pushing at an open door. It made sense to bring everything together."

An organisation was set up to operate outside traditional health and local authority structures. Crucially, however, the board includes senior decision makers from all stakeholders. "It's got high level buy-in, which I think is important," he says.

Funding for the initiative comes from health and social care, which should mean a seamless service for patients or clients. "It's a five-year contract with a two-year break clause," he says. "In the future we might have proper pooled budgets, but we're still at an early stage."

Even at this point, however, the intention is that there will be no quarrel about whether equipment is funded from health or social care – if an assessment says it's needed, it will be provided.

The full business case was signed off in January, and the aim is to announce a preferred provider at the end of this month.

It has been – and continues to be – a lot of work, and a high level of commitment is needed. "It's like any partnership, you have to work at it," says Mr Huntington. "But it's about being tenacious – if we get the chance to talk to just one GP about this, even if it's at eight o'clock on a Friday night, then we'll grab it."

Getting buy-in from practice managers is key, he adds. "They can go back and explain it to their GPs," he says.

The organisation is cautious about the potential gains, but has set a target of £1.5m in savings over the next five years. Initial plans are to involve 2,000 service users, but this will scale up to 20,000 reasonably quickly, with the potential for a further 10,000 at a later stage.

AIREDALE

When health secretary Jeremy Hunt visited the Airedale Foundation Trust at the end of January, he tweeted that he had "just seen some of the best tech anywhere in NHS".

"For us, that says it all," says Rebecca Malin, head of business development at the trust. "We think we're ahead of the game, and we're really showing what you can do."

Airedale has been using telemedicine for several years, and in a variety of settings, including nursing homes, hospices, care homes, in the community, and in prisons – 20 at the last count.

The heart of the operation is the telehealth hub at Airedale Hospital. Staffed 24 hours a day by experienced senior nurses, the hub provides clinical support to patients day and night via high quality, secure, video links.

"It's important to have high-band nurses, because you can be sure the right decisions will be made about the right care, at the right time," she says.

Most of the patients using telemedicine in their own home have one, or more, long term conditions and can call the hub if they have any concerns – often helping to avoid expensive hospital admissions, as well as providing reassurance to patients and their families and carers.

"We see the highest use from patients with COPD and with heart failure," she says. "We're also supporting end-of-life patients and their carers. That's been great, because so often people at the end of life go back and forth to hospital, when really they could be looked after in their own home.

"I heard feedback from one lady who said the 24/7 support from the telehealth hub meant that she was able to keep her word to her husband – that he could stay at home."

Engagement at every level is a "must have" for setting up such a service, she says. "You have to involve everyone who might be involved at any stage, across health and social care," she says.

"That includes care homes, GPs, community nursing teams, the ambulance service – everyone. It also involves the acute hospital – if someone needs to be admitted we can make sure they avoid A&E, that it happens in a more planned way, which is better for everyone."

It's also vital that the nurses manning the hub have a comprehensive knowledge of the local health and social care "directory" of services, she adds. That way they know whom to call if the patient needs support from the district nursing team, for example.

The trust estimates that it costs approximately £200, per month, per patient, to set someone up and look after them through telemedicine. Given that one hospital admission costs in the region of £2,500, the service virtually pays for itself if just one admission is avoided per year.

The trust is already preparing for this April's changes, and has been building relationships with CCGs. The patients, says Ms Malin, should notice no difference.

Other tips for those thinking of following in Airedale's footsteps include making sure both the clinical and IT governance are right, putting in place a single patient record – and having the confidence to go for it. "Don't pilot – you'll only get the real benefits if you go to scale," she says. ●

ALAMY

IAN FOXLEY ON BEING REMOTE

Every medical expert comes under maximum pressure when the patient has a life-threatening emergency. At that moment being able to deliver the "right" level of medical assistance is critical and, if you cannot get to the right place in time to bring your skills to bear, the result is frustration – for everybody.

Telehealth today is about bringing the right medical support and advice to the patient in the most appropriate fashion. Advances in modern telecommunications now allow specialist expertise to be focused on remote problems without any time delay. It's all about re-imagining how we can use technological advances to transport the right knowledge to the right place at the right time – and with the added benefits of time and cost saving that come with better use of resources.

A recent exciting development is online video. Think past YouTube and imagine video as a means of observing, analysing patient movement and physical interaction and being able to deliver suitable medical support in a timely fashion. Imagine medical help being delivered to parts of the world that previously could not even dream of such support.

We are working with some of the world's leading medical scientists to forge the way and develop techniques and products that can benefit mankind by enabling medical expertise to be exported to remote regions.

Such exports need not only be directed at the developing world of course; there are many areas closer to home that would benefit from ready access to expert medical help. Imagine the ability to diagnose illness or the extent of a traumatic event at distance and forewarn the necessary facilities to be prepared.

'Imagine medical help for parts of the world that previously could not dream of such support'

Exponents of global telemedicine such as the Swinfen Charitable Trust, with the assistance of the Centre for Wireless Health at the University of Virginia, USA, are now looking at how mobile video can be used in the field. In the UK, Northwest Shared Infrastructure Service is looking to implement a pilot system in Cumbria and Lancashire trusts to bring telehealth services via "N3" video links to help in areas covering cardiac and stroke, adult congenital heart disease, specialist oncology, renal dialysis, paediatrics and burns units.

The ability to convey a live video picture over a mobile phone network can provide support to the patient in the home or in a remote and difficult to reach location. Imagine!

Ian Foxley is the managing director of Vemotion

www.vemotion.com

vemotion

TECHNOLOGY

DISTANT VOICES, SAVED LIVES

Video and smartphone technology is allowing medics to get expert opinions from miles away, says Daloni Carlisle

Ideally, clinicians want to see patients face to face. But that ideal is not always possible and as clinicians have explored using video, so they have discovered that face-to-face contact is not always necessary.

Take the case of the telemedicine stroke service in the north west. It was born out of a shortage of consultant-level stroke specialists and a need for their expertise to be available 24 hours a day across a wide geographical patch.

So the North West Shared Infrastructure Service developed a video platform that would allow consultants to work on an on call system to cover a greater area.

Hospitals across Cumbria, Greater Manchester, Lancashire, Cheshire and Merseyside are now equipped with telecarts – computers with high definition cameras and microphones. Consultants, meanwhile, have laptops and broadband at home.

It works like this. A patient dials 999, call handlers identify that this is likely to be a stroke and an ambulance is dispatched.

The ambulance takes the patient to the nearest A&E department with a telecart and immediate diagnostic tests such as a CT scan are done. The hospital then dials in the on-call consultant who can simultaneously view the scanned images, and see and talk to the doctor on site and the patient in a live video link. The consultant carries out a standard assessment over the link that involves, for example, asking the patient to lift their arm, looking at their face and assessing their speech.

Gus Hartley, who leads the ICT infrastructure programme for NHS North of England's Informatics Directorate, says: "The consultants have high definition screens that allow them to look right into the patients' eyes. They can do it from home and then advise the clinician on the local scene."

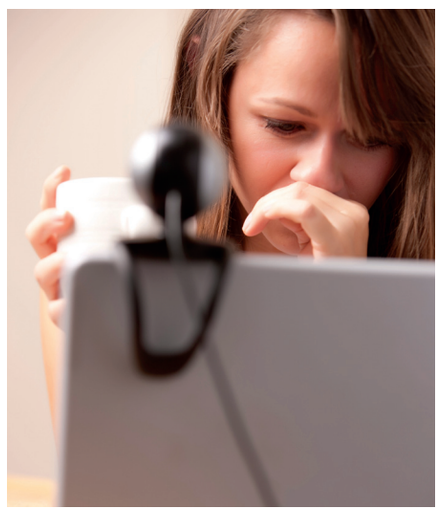
One hospital that recently joined the telestroke service had just one consultant. It now has access to 18 consultants who cover the out of hours rota. "Patients are being seen by consultants who might be 200 miles away," says Mr Hartley.

In the 18 months since it went live, telestroke has also helped standardise medical practice across the region as all consultants are now trained to the same level and work to the same guidelines.

Given that stroke guidelines indicate that clinical outcomes are dramatically improved if treatment is started within four hours of onset, this is literally a life saver.

This system relies on some fairly hefty infrastructure to create a "video as a service" for the region. This service includes the physical network, commercial contracts for broadband at consultants' homes and a support desk with 24-hour access for users.

"The first 18 months of this project required some heavy lifting," admits Mr Hartley. "There was lots of work around the legal side, contracts, working time directives,



ALAMY

the existing work teams and the information governance."

But now this in place and the first telemedicine project has been proven to work, and to work at the click of a button, other specialisms are showing an interest.

"The telecarts are a nice piece of kit and there is a range of services where they are starting to add value," says Mr Hartley. The wider A&E environment in which doctors might want a specialist second opinion is one obvious arena but there is interest also from vascular services.

And as the culture changes among clinicians and video gains acceptance, so Mr Hartley is branching into a new area: video over the mobile phone network.

He is working with Vemotion, a software company that specialises in systems that allow users to video in high definition on one site and transmit real time over a mobile phone network but with the transmission encoded.

It can run over any smartphone with an 8 megapixel camera and allows pictures and speech to be transmitted simultaneously.

The technology is already in use in other industries (such as security surveillance and civil engineering) as well as in medicine – although it has more usually been associated

'The technology has been associated with patients such as those needing medical advice in climbing accidents'

with extremely remote patients such as those needing medical advice in climbing accidents or those in cottage hospitals in the Scottish islands who can be linked to hospital centres. "It allows experts to see what I see – not to see what I have seen," says Vemotion's managing director, Ian Foxley. "And it is good leverage of the technology that most of us have in our pockets anyway."

It has many uses, he adds. Ambulance crews could use it to transmit pictures of casualties at a road accident to an A&E department, doctors could use it to get second opinions from remote experts, physios could supervise remote patients.

"I recently demonstrated the system in the NHS to a wide range of healthcare disciplines all of whom said that they can see real applications and benefits from applying this capability," he says.

A consultant psychiatrist, for example, suggested he could ask mental health workers to video patients out of hours and access his advice regardless of time or location. "One of the great benefits, of course, is that they can conduct a mobile phone call over the same device at the same time – and keep a video and audio record of the visit," adds Mr Foxley.

The work with NHS North West is a proof of concept. "We can see quite a range of uses, for example in dermatology assessing wounds or linking district nurses in people's homes to the cancer multidisciplinary teams," says Mr Hartley. "Video as a service is very easy to use. It is a single click on the laptop to connect and the clarity is astonishing. Vemotion's system extends that to Android devices and iPods and iPads."

He has already demonstrated the technology – its clarity and ease of use – and says clinicians were impressed.

"I am working with clinicians and said to them 'here is a product, go away and play with it and we can start to map Vemotion into our clinical portfolio'."

If Mr Hartley is right, and clinicians really take to this, then video may soon become as essential to them as a stethoscope ●

‘THE SIX BILLION DOLLAR QUESTION’

The health service needs innovative telehealth technologies but many firms that should be supplying them are unwilling to invest when demand is so patchy. How can we kickstart the expansion of ‘Remote Care PLC’? By Jennifer Trueland

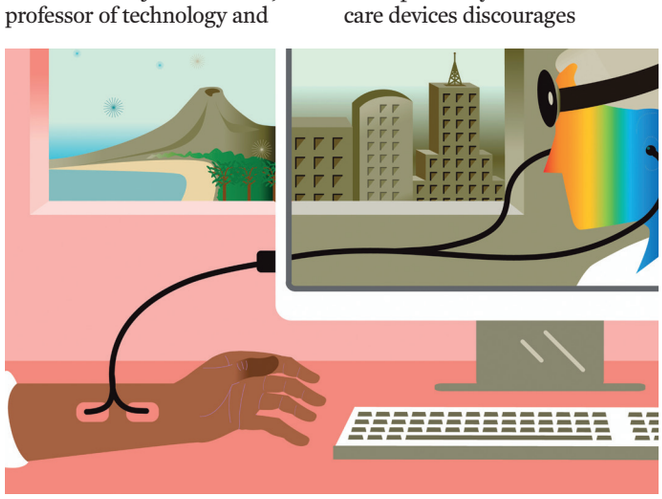
On the face of it, a wholesale move to telehealth and other assistive technologies looks like a no-brainer. Avoiding emergency admissions, fewer face-to-face consultations, giving people more control over their own health – what’s not to like?

Certainly there has been pilot after pilot – and there’s high-level government buy-in, for example, with the flagship 3millionlives project – but will this be enough to turn the vision of a remote care future into a reality?

In January, the Health and Care Infrastructure Research and Innovation Centre (HaCIRIC) published *Remote Care PLC*, an investigation into the preparedness of suppliers to meet anticipated future need for remote care. The report doesn’t paint a rosy picture: according to lead author James Barlow, professor of technology and innovation management at Imperial College Business School, and principal investigator with HaCIRIC, suppliers have serious concerns, and faith in the future is shaky.

He describes a sector which “remains embryonic, small-scale and fragmented”, particularly on the telehealth side. The industry has difficulties in identifying suitable business models upon which it might base serious expansion, he adds. “This is compounded by a shortage of evidence for the benefits of remote care that could make it a must-have for health and social care providers.”

Other issues identified in the report are the immaturity of products, which, alongside continuous innovation, is hampering purchasing decisions, while low levels of interoperability between remote care devices discourages investment and makes it difficult to establish standards.



These issues aren’t insurmountable, he says, but more action is needed, including better relationships between would-be buyers and sellers of remote care, NHS leadership, and stronger government support.

So how has industry responded to Professor Barlow’s report – and what is the sector doing to hasten the move to a telehealth-focused system?

Ironically, for remote technology to take off, there needs to be more face-to-face communication, says Jon Lindberg, head of healthcare with Intellect, the UK technology industry’s representative body.

“There is a disconnect between the political thinking, and what’s happening on the ground,” he says. “That’s partly why 3millionlives was founded – to drive things locally. But I think we need to do more face to face meetings to talk through the challenges and really drive things forward.”

One of the issues, he says, is that the NHS is reluctant to take the first step – providers want “somebody else” to do it first. “It’s not just about technology – it’s about embedding it in clinical pathways. This is big stuff, and we need to do a lot of thinking about it, and a lot of talking about it – face to face, not just through media debates.”

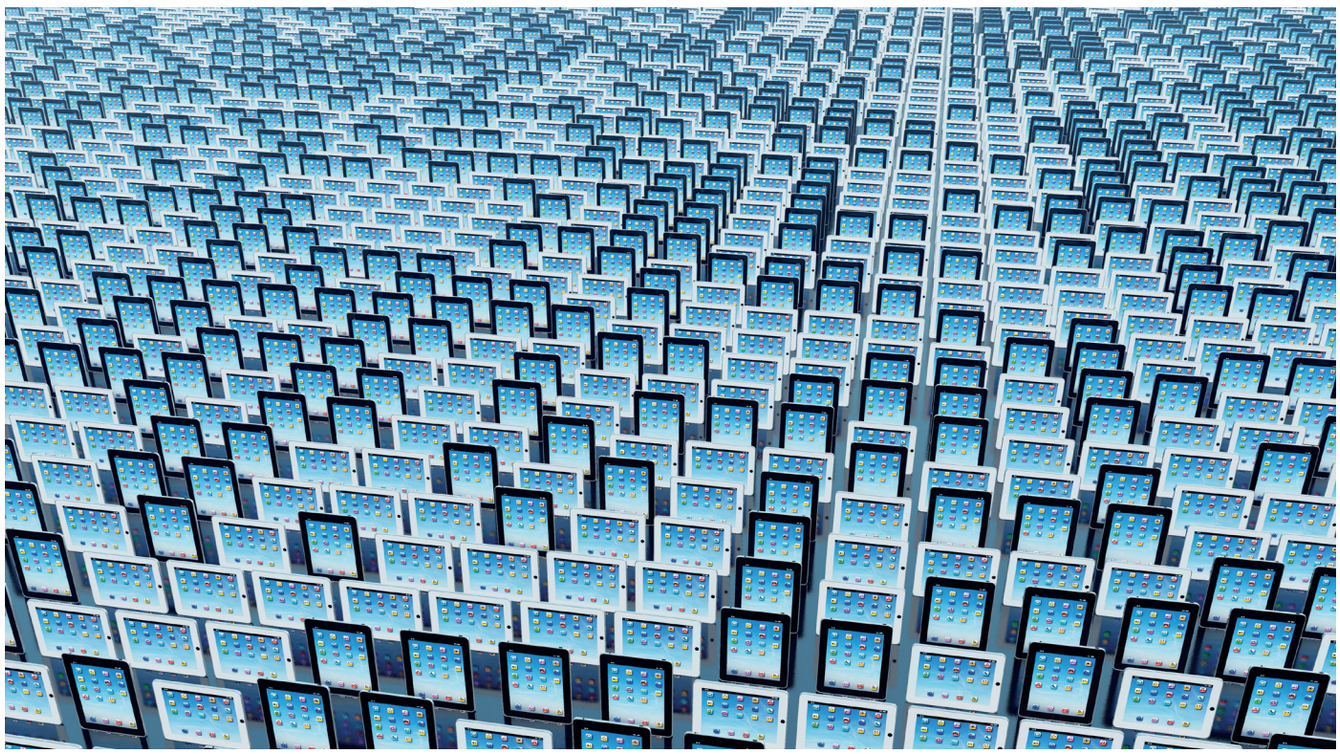
He acknowledges Professor Barlow’s point about the scale and shape of current market. But he adds: “It’s small and fragmented on the demand side too; this [telehealth] is a new and disruptive thing, and until it gets momentum – which we’re trying to do with 3millionlives – we won’t get a stable and mature market.”

The NHS needs to be educated about what is out there, but industry is quick to respond to customer demand, he says. “Suppliers are being asked for tablets and smartphones, because that’s what the clinicians, and the patients, are accustomed to using. That wasn’t the case a couple of years ago, but industry is responding.”

The consumer, or end user, needs to be educated too, says Carl Atkey, head of telehealth company Appello. “We had the opportunity to be part of 3millionlives, but chose not to – we chose instead to spend the money on an educational campaign [for consumers]. I think 3millionlives will raise awareness among professionals, but that’s only part of what needs to be done.”

Appello, a nurse-led telehealth monitoring service, is a sister company to a major telecare company, and Mr Atkey sees the future as telehealth and telecare working together, ideally with the same technology meeting the end user’s continuum of needs.

He is also using new service models, ones that don’t require capital outlay on kit, but rather offer a service to the user, while



reducing footfall to GPs and other health services. In an attempt to boost consumer education, last year Appello co-founded the Telehealth Forum with organisations such as Diabetes UK. And he is confident. "Yes, telehealth is new, but it's the way forward."

The description of a fragmented industry is familiar to Roberta Carter, a partner with KPMG Advisory, who provided programme management support to the Department of Health's Whole System Demonstrator telehealth project.

"The supplier community is evolving and developing, with lots of new companies popping up," she says. "But it's very fragmented – there isn't the large-scale opportunity so far, for companies to grow... Small suppliers want to be service providers, they want to do all these things, but when they're offered yet another pilot with 30 patients, it's not a way to grow a business."

NHS's inadequate spending

Companies are exploring different ways to raising the cash to grow, including private equity and money from abroad, because NHS spend on telehealth isn't enough to take it to scale, she says.

"For smaller companies to come to the fore there have to be bigger and chunkier contracts on offer," she says, adding that even if all the contracts across the country were added together they still wouldn't be huge. The cost of bidding even for small projects can be prohibitive, even for larger companies, while jumping through all the procurement hoops can be practically impossible for smaller suppliers."

'When small companies are offered yet another pilot with 30 patients, it's not a way to grow a business'

Indeed, she sounds quite pessimistic about the future for smaller suppliers, saying that even if she were a big player in the market she'd be reluctant to go on an acquisition spree, unless there was a particularly good bit of technology that she wanted. "Why buy companies when, in the current market, you can just let them wither on the vine?" she asks.

One of the problems is the essentially local scale of telehealth and telecare adoption, she says. Because there is no "national programme" – and she recognises the political problems with this term, and possibly even the concept – there isn't the scale that could make the difference. Alternative forms of partnering, between industry, service providers and government, are needed, she says.

"That's what 3millionlives is trying to do but I'm not sure it will be enough," she says. "It's making progress but it's slow progress, when what we want to see is telehealth as part of health provision – it needs to be embedded as the norm."

But what of the consumer? Will the digitally savvy bypass the NHS and take control themselves by accessing the increasing number of health apps being developed for mobile devices, such as smart phones and tablets?

There are a few problems with this notion, says Ewan Davis, director of Woodcote Consulting and a founder of HandiHealth, a not-for-profit healthcare app network for development and innovation. "There are apps out there which claim to help you, but there are quality problems with a lot of them," he says. "That's an issue for people using them, but also for the developers of high quality apps because they want to find a way of differentiating themselves in the market."

He believes that health and social care professionals will continue to "gatekeep" in the sense that they will point patients or clients to a particular technological offer which might help them, rather than a "spontaneous" rush from consumers keen to find their own solution.

So what needs to happen to help telehealth and telecare grow into a mature, large-scale market, embedded in the NHS?

"That's the six billion dollar question," says Mr Lindberg, adding that incentive models could be key. For example, although local authorities might spend the money on telecare, it could be that the financial benefits are accrued by the NHS, which sees fewer emergency admissions as a result. Is this fair? "There is progress on the tariff, but this needs to be quicker," he says.

Health service managers will embrace telehealth, believes Professor Hilary Thomas, also a partner at KPMG Advisory. Despite the perverse incentives in the current tariff, which effectively rewards trusts financially for hospital admissions rather than for treating people at home, she believes they will see telehealth as making financial sense.

Financial directors with an eye to cost savings will recognise that avoiding admission and readmission is a way of freeing up capacity – and therefore saving money. "The most expensive thing is beds, and people to staff those beds."

She sees a move to telehealth as making sense, and calls for more decisive action. "It's not a leap of faith – it's as much a leap of faith as using a mobile phone." And we all do that everyday. ●

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