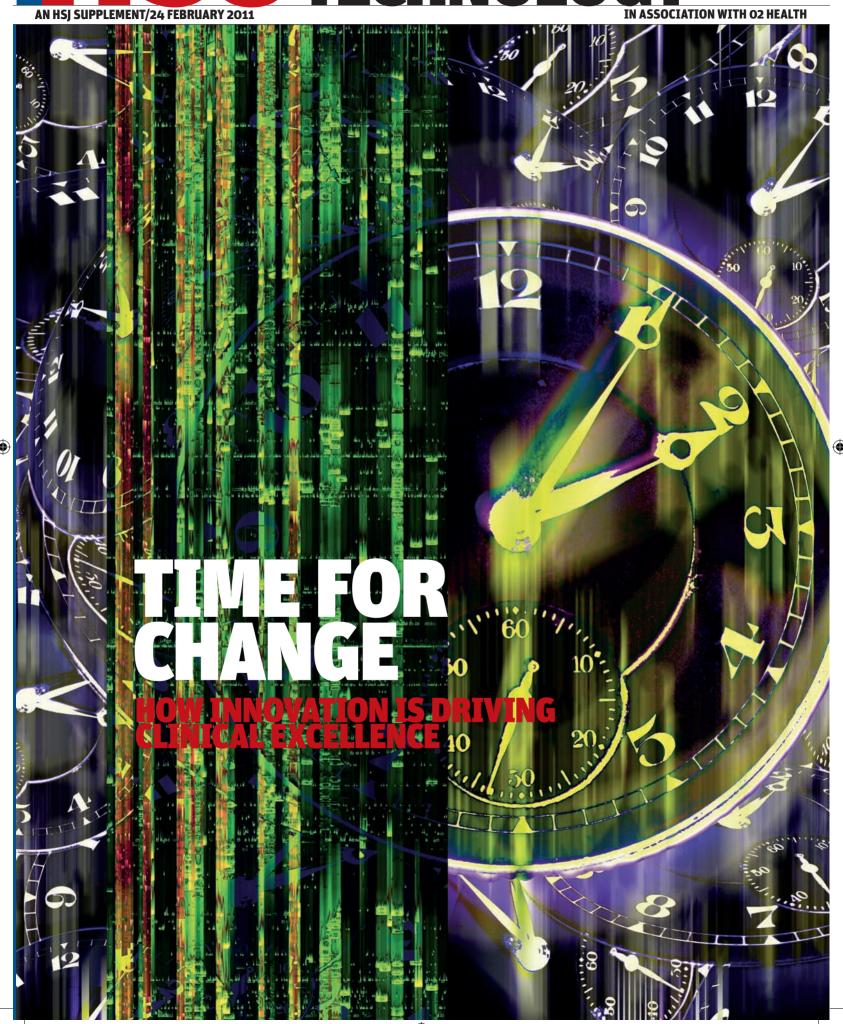


TECHNOLOGY

O₂ health





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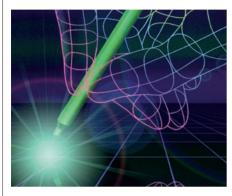
FIRST THOUGHTS

DIFFERENT WAYS TO DELIVER

O2 Health has the bespoke technology to help the NHS change the way it works – but the health service needs to accept that it's a time for doing things differently

Supplement editor Jennifer Taylor **Designer** Vernon Adams

BEST PRACTICE



From digital pens to laptops, the carefully thought out introduction of technology is raising standards of care for patients and the quality of working life for NHS staff.

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TELEHEALTH



Telehealth's potential is vast: not only can it deliver consultations to patients in isolated areas but it can help clinicians to cut costs and hold their own meetings.

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The NHS must embrace new ways of working to increase efficiency in the community as services shift out of hospital, says 02 Health's Keith Nurcombe.

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The NHS knows it needs to evolve and that the model of care needs to change. We know that people need to be looked after closer to home or at home rather than in secondary care in

order to meet increasing expectations and growing demand over the coming decades.

Wider adoption of technology across the NHS is seen as central to delivering clinical excellence and more efficient care.

The white paper *Liberating the NHS* speaks about putting patients at the heart of the NHS through an information revolution and greater choice and control. That information revolution includes new ways of delivering care using technology. But a greater focus on and understanding of the needs of the patient and their carers is paramount, with technology simply the enabler for change.

Some trusts I speak to understand that they will have to treat more patients in the community and that they will have to change the way they work. Others say technology will undoubtedly help them increase their work in the community but they believe they can carry on working in the same way. The reality is that technology and innovation can only help trusts if they make fundamental changes to the way they work.

O2 Health can offer a real partnership with the NHS that is capable of effecting real change. Specifically, we can help deliver effective and intelligent systems to help people manage their own health and long-term conditions outside hospital, to fit in around their lives. And working in partnership we can find cost-effective ways of delivering a more efficient service in the community, hospitals and in homes.

We have a team of people with NHS

experience. Instead of just presenting a readymade solution, we ask NHS organisations to tell us what they want to achieve, how they want to achieve it and how we can help. We can then support organisations to manage that change both from a people point of view and a process point of view, and then we'll embed a solution which delivers that change in the community. Solutions are bespoke because they need to reflect differences in geography and communities.

Time for change

We're using telehealth in NHS Western Isles to reduce travel time and improve access and in Berkshire East Community Health Services to speed up physiotherapy rehabilitation and reduce the need for follow-up appointments. In Bradford and Sheffield we are using mobile phone technology to electronically transfer photos that will help improve wound care.

At Portsmouth Hospitals Trust, digital pens are freeing community midwives' time and text message appointment reminders are reducing did not attends. NHS Rotherham has changed the way community health workers do their jobs and made patient records easier to manage.

These pockets of good practice will not end there. In November we launched our Centres of Excellence programme to spread best practice and so far we have teamed up with three leading health organisations. We would like to grow the number of likeminded partners we work with over the next couple of years. This is a time for change and a time for doing things differently. Technology is now available to enable that change and O2 is here to help. ● Keith Nurcombe, managing director, O2 Health, and global director for telehealth at Telefónica.









BEST PRACTICE

BRIGHT IDEAS FOR BETTER CARE

From digital pens to laptops, the carefully thought out introduction of technology is raising standards of care for patients and the quality of working life for NHS staff

O2 Health has evidence from working with NHS customers of how services can be transformed and patient experience enhanced, using technology as the enabler.

This has been particularly evident in a community setting where healthcare workers spend a significant amount of time on administration and other non patient-facing activities. Technology has helped to reduce that administrative burden and remove inefficient working practices.

The major challenge facing the NHS when it comes to technology is that often it doesn't achieve its objectives, says Tom MacAllister, O2 Health senior consultant. "A big chunk of the reason is because change management isn't implemented well, and a big focus of that is clinical engagement."

The health service is heavily focused around paperwork in both acute and community settings and clinicians have a professional obligation to keep complete and accurate documentation.

In the acute setting, patient information is at the bedside. But in the community, documents reside with the patient and clinicians do not have immediate access to them. Nationally the result is that in community health services, patient-facing time is reduced because of the need to return to a central point to do administrative work.

O2 Health has found that in urban settings, community nurses spend an average of 30 per cent of their time in front of patients, 10 per cent travelling and 60 per cent on administration.

"Nationally that is a huge cost to the NHS," says Mr MacAllister.

Numerous attempts have been made to

'The problem was we wanted to go paper light quickly but didn't have the mobile infrastructure to support that'

solve the problem but there are challenges with technology and with clinical engagement. Providing access to electronic patient records on the move is a major hurdle because they were not designed to be mobile.

At the moment, community nurses fill in the patient's record at their home and write the information in their diary. When they return to base in the afternoon they update the computer system with that information. There are numerous points in the process where errors in translating the information could occur, and O2 has looked at capturing that information in a number of ways.

Frank session

"If we show a community health person a digital pen they think it's the answer to their prayers," says Mr MacAllister. But he adds: "The challenge doesn't then become about the technology, it still becomes about getting clinical engagement as to how that technology will work and how would you change your operating procedures and processes to allow that to work effectively?"

O2 Health's approach is to make clinical engagement a top priority. Consultants from the team run workshops for clinicians to

find out what barriers they face in achieving what they want for their patients and what things help. Consultants also reveal what a typical day looks like. "Because we're independent we generally get a very open and frank session with clinicians," says Mr MacAllister

Relationships built during the workshop are essential to the next stage in the process, which is field study. Consultants from O2 Health join clinicians in their daily work and capture information on the level of effectiveness being achieved and measurable elements that reduce time spent with patients. Finally O2 Health reviews the paperwork involved in the process from end to end.

NHS ROTHERHAM

The approach was a success at NHS Rotherham, where paper light working was creating problems for mobile workers. The primary care trust had needed to replace its legacy patient record system and in 2006 decided to introduce an electronic patient record. From January 2007 the new system was rolled out to all provider services. It meant there would be a complete change of ethos and way of working for clinicians because until that point services were paper-based.

From an IT infrastructure point of view the transition went smoothly. There were enough PCs and clinicians working in a base had few problems.

But most PCT staff, around 1300 of them, were community-based clinicians. "That's where the problem was because we had a system where we wanted to go as paper light





as quickly as possible, but there wasn't the mobile infrastructure to be able to support that," says Paul Chapman, clinical lead for information technology, Rotherham Community Health Services, NHS Rotherham provider arm.

NHS Rotherham decided to provide clinicians with some form of mobile technology. At the time, laptops were the only option so these were purchased and an attempt was made to integrate them into the clinical environment.

Mr Chapman was leading the physiotherapy service at the time and came into his current post in June 2008. "I knew the potential that mobile technology could give me as a clinician and my fellow colleagues," he says. But many clinicians were resistant to using the laptops and were not getting the best out of them.

The solution

O2 Health offered support and to help the PCT work through these issues. "They weren't bringing technology because we said we didn't need that," says Mr Chapman. "But what they felt they had was expertise in supporting business change as you introduce mobile technology."

A partnership between the two organisations began at the beginning of 2009. Clinicians attended workshops with O2 Health consultants which "allowed the clinicians to actually say how it was without feeling the organisation was listening", says Mr Chapman.

NHS Rotherham and O2 Health then sat down together and created an action plan. Very early on O2 Health identified that Rotherham's training package could be improved. The PCT had thought that one-to-one training sessions would be the best option for people who were slightly technophobic. But O2 Health's experience had shown that group training was better and helped the PCT to develop that.

O2 Health gave support on how to introduce business change from a mobile point of view through understanding how people feel about new technology.

They also helped to support changes within systems and processes. Until that point, clinicians had to fax information between the PCT and the borough council, which meant returning to a location with a fax machine. O2 Health supported and enabled work around the set-up of a secure network so that information could be sent via emails and encouraged the council to participate by showing past examples of how such a network could work.

As an independent and well-known organisation, O2 has helped Mr Chapman and his IT colleagues to articulate to the Rotherham Community Health Services executive what the issues are.

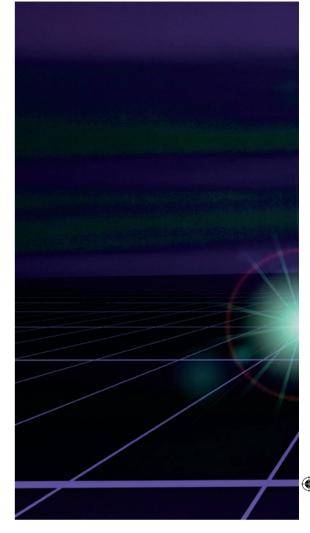
"They've also supported us to take forward a business case because we want to make some big changes to the way certain services are run," says Mr Chapman. "We've been able to use that credibility of an organisation to help support any business change that we want to introduce."

More patient time

O2's involvement has also been an opportunity to rebadge the project and decrease resistance from staff, although Mr Chapman admits that they are still struggling to get full clinical engagement in some areas.

"I would challenge any organisation out there that says it's got full clinical engagement with IT and mobile solutions," he says. "Rotherham is like any other organisation but I feel we are beginning to make inroads into it."

It's an interesting challenge because most clinicians use technology in their everyday personal lives and yet some are resistant to introducing it at work. Mr Chapman believes that training is one solution, along with



identifying where technology can be a real benefit. His approach is to ask clinicians what solutions they think would work in their environment, then provide them with the opportunity to try them. A team of clinicians working in intermediate care asked for laptops and NHS Rotherham took that opportunity to try some of O2 Health's suggestions, including the new training package and business change.

The intermediate care team is now spending 33 per cent more time with patients. Travelling time has reduced, information flows have improved and communication has improved between staff and patients and between staff and management.

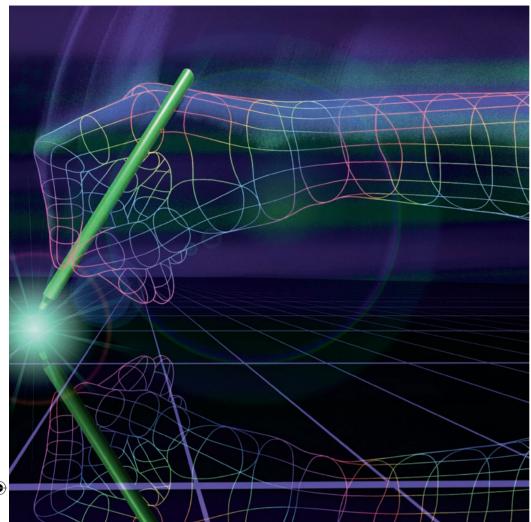
Mr Chapman points out that the key to improving productivity is not mobile technology. "Everybody thinks you give the clinician a laptop and their life is made better [but] it doesn't work like that," he says. "Mobile technology supports and assists you to improve productivity and efficiency. You've got to be prepared to put the other business change steps in place and understand exactly where the mobile device works for that individual."

PORTSMOUTH HOSPITALS TRUST

Portsmouth Hospitals Trust completely changed its way of working before introducing technology to help reduce did







'The hospital changed its appointments process and adopted the culture "never let a slot go free"

not attend (DNA) rates. About two years ago when they started looking at the problem, just over 3,000 out of 43,000 outpatient appointments per month were being lost because patients were not turning up. A requirement came in to shorten waiting times to 18 weeks and there were clinical concerns that patients who failed to turn up could be vulnerable and not getting the care they needed. Funds were also getting short

"The normal way to mop this sort of thing up was waiting list initiatives and premium payment extra clinics [but] we couldn't do it any more," says Mandy Mugridge, the trust's project manager for outpatients.

and the trust needed to save money.

They began DNA audits which involved phoning patients from the worst-offending clinics to first ask if they were okay and then, without any blame attached to it, ask why they had missed their appointment.

Most people said they had forgotten. A smaller proportion said they had felt better and the appointment was no longer necessary.

The trust introduced a simple paper system in which patients were sent a reminder letter 10 days before their appointment. The cost and time required meant they could only use the system in clinics with the highest DNAs.

DNAs dropped significantly for those clinics. Waiting lists also shortened because

in addition to sending the reminder the hospital changed its appointments process and adopted the culture "never let a slot go free". They have achieved that by backfilling. When patients phone to say they cannot make their appointment, booking staff are tasked with filling it. Ms Mugridge says: "If we hadn't done something about it, we would have turned DNAs into patient cancellations but there still would have been an empty slot [and] it wouldn't have made any difference to the waiting times."

Death of duplication

The next step was to look for technical solutions to automate some of the process, which is when O2 Health came on board. Every clinic is now involved and all of the trust's outpatient appointments – nearly half a million per year – have an automated appointment reminder sent out five days before. Patients can choose to receive a text message or landline voice message. Patients who receive text messages can cancel their appointment by the same medium.

The system went live in April 2010 and a near 40 per cent reduction in DNAs has been achieved across the trust. "We no longer run any waiting list initiatives or premium payment clinics; they all stopped last October," says Ms Mugridge. "We're now starting to see wait times [of] less than six weeks, which is unheard of."

The trust has begun using text messaging for other things, such as reminding its teenage patients with diabetes to take their insulin at the correct time, and notifying patients when a clinic has been cancelled due to bad weather. They are also set to begin sending text message reminders to patients due to come in for breast screening. Ms Mugridge says: "Nationally there's quite a high DNA rate on breast screening so that hopefully might improve the uptake of that and diagnostics at the end result."

The key to making it sustainable has been











Technology can be used to cut DNA rates and ensure patients come in to clinics (left), a system which has been used to great effect at Portsmouth Hospitals trust (above)

sound policies, good leadership and performance monitoring. Each clinic has its own self-prescribed targets of how much clinic space they have to use.

Also essential has been changing the trust's processes before bringing in the technology. Ms Mugridge says: "You often hear people say 'that didn't work for us' or 'that was really costly and it didn't work'. It's because they haven't looked at how you've got to work differently, because often you do, and then the technology supports what you're doing."

Portsmouth Hospitals Trust has also worked with O2 Health to improve the efficiency of community midwives by using digital pens. Midwives provide antenatal care for women in their homes and take notes in a booklet which is left with the woman. They enter the same information on to a computer when they return to the hospital. The trust wanted to eliminate the duplication of work and chose the digital pen because it is light and easy to use. Today the digital pens allow midwives to record the information once. The digital notes they make in the mother's home are automatically, immediately and securely transferred to the patient record system.

Administration time has been cut from 98 to 48 minutes. "The digital pen has made dramatic improvements to the way community midwives work, allowing them to spend more time with expectant mothers," says Portsmouth's lead midwife Sharon Hackett.

She adds that it is also helping her to do her job as a manager more efficiently because she doesn't have to type up minutes from meetings. The digital pen automatically puts notes into a PDF, which she saves on

Each pen has a serial number that is allocated to a person so the trust has a complete chronological record of when interactions occurred, which will improve the audit trail dramatically. And because there is a real time record of activity, staff can use the pen to alert Ms Hackett if they are concerned about their own safety.

Portsmouth's director of ICT Bill Flatman predicts that the digital pen solution could deliver future benefits for the hospital because it is applicable in many other areas. He says: "The digital pen allows staff to work closely with patients and to collect data in a way that's unobtrusive and actually doesn't interfere with the delivery of care."

As O2 Health has worked with NHS organisations to develop pockets of good practice it became apparent that there was a real appetite for true partnership rather than a supplier relationship, and there was a desire to share best practice. O2 Health saw an opportunity to facilitate that process, starting with some key customers.

In November 2010 it launched a Centre of Excellence programme, which is focused on developing innovative healthcare systems. NHS Western Isles, Berkshire East Community Health Services and NHS Rotherham are the first health organisations to take part.

Expansion plans

NHS partners will provide clinical resources and health expertise to help create and pilot new solutions in a range of care settings. They will help to ensure that projects focus on patients and the clinical need first and then look at how technology can support that process, rather than the other way round.

O2 Health will invest significantly in UK health innovation over the coming years by channelling resources through its Centre of Excellence partners. It will provide innovative solutions, funding for pilots and technical expertise, and organise forums to encourage shared learning.

O2 Health plans to expand the programme over the next two years to include up to eight partners. "The types of partners that we'll be looking for are likeminded organisations," says Steve Lawson, O2 Health's head of marketing. "They have to have that culture and drive to move quickly to embrace innovation."

Another priority is to have a balance of acute, community and mental health organisations and urban/rural settings taking part. Discussions are under way with a number of large hospital foundation trusts and some of the pathfinder GP consortia.

The programme is designed to create regional beacons of excellence for health innovation and to provide a networking community between Centre of Excellence partners to share learning and best practice. The latter part is something that we underestimated," says Mr Lawson. "I've been amazed by the appetite of some of the partners to speak to each other about [what they have been working on and struggling with in some cases."

Ultimately the programme is about spreading best practice more widely by tapping into existing regional networks. O2 Health will fund regional events to allow Centre of Excellence partners to showcase what they have achieved, how they are addressing particular challenges and how they are transforming care services. The idea is to create a forum for knowledge transfer that will lead to improvements in services and patient experience, with the added benefits of cost savings and efficiencies.

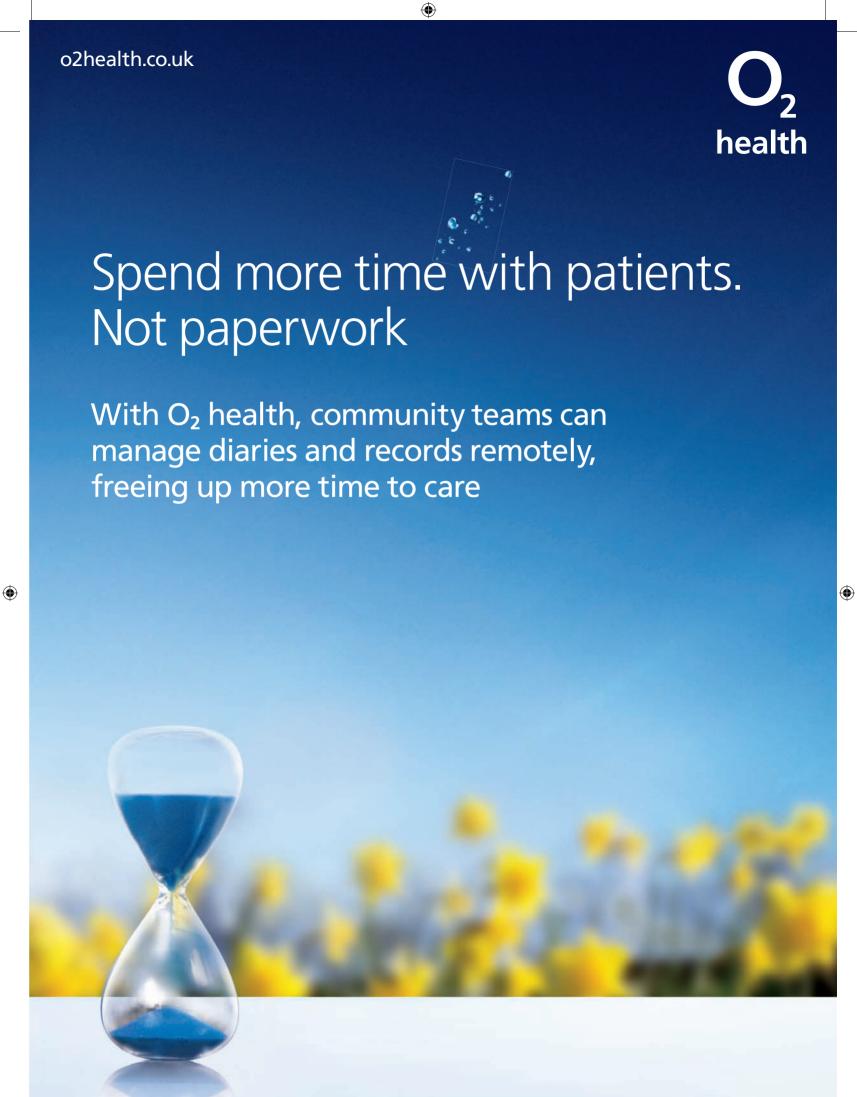
From O2's point of view, the Centres of Excellence will provide a great showcase for what technology can do as an enabler to innovation. "There's nothing more powerful than other health organisations hearing it from our Centre of Excellence partners," says Mr Lawson. "They're closest to the patient, they're at the coalface [and] they can articulate their challenges and successes better than we could ever do."















TELEHEALTH



MILESAHEAD

Telehealth's potential is vast: not only can it deliver consultations to patients in isolated areas but it can help clinicians to cut costs and hold their own meetings

Telehealth presents the opportunity for patients with long-term conditions to live full and independent lives while feeling safe and secure that their health is being closely monitored.

A telehealth service allows patients to monitor their blood pressure or blood sugar levels, for example, from the comfort of their own homes. The readings can then be sent to a monitoring centre where trained clinicians assess the data and can spot changes in a patient's condition—and take action if necessary.

Patients play a part in managing their illness and health generally and can feel confident they are not isolated and will get help when needed. In the meantime they can live a normal life devoid of repeat visits to hospital.

It's a better outcome for the NHS, too,

with fewer unnecessary patient visits to primary or secondary care, which leads to more cost-effective care and a better quality experience for the patient.

While O2's experience with telehealth shows that it is at worst cost neutral and in reality tends to be cost saving, telehealth is not about saving money.

"For me the two criteria are giving a better patient experience and changing the model of the way the NHS works because we cannot continue to spend this level of money on health," says Keith Nurcombe, managing director of O2 Health and global director for telehealth at Telefónica. "The upside is that it shouldn't cost you more money."

Despite the need for change, the NHS has been slow to adopt telehealth. The Department of Health's Whole System Demonstrator pilots of telehealth and telecare aim to evaluate the costs and benefits of delivering telecare in a number of settings. In Scotland, the Scottish Centre for Telehealth provides support and advice to NHS boards in evaluating the potential benefits of new technologies.

But these alone are unlikely to be the only impetus to getting change adopted. The financial burdens on the NHS will be another imperative, as will an ageing population, the availability of suitably skilled clinicians and forthcoming structural changes. The addition of commissioning consortia into the mix will make care more localised and fragmented and stimulate the search for more local solutions.

O2 Health and Telefónica have telehealth solutions that are up and running commercially in Spain and are being trialled in the UK. Side by Side is a collaborative







'NHS Western Isles' consultants only visit certain remote places every three months'

working tool that provides a video and voice link between clinicians or between a clinician and patient. It runs on standard broadband. In addition to people being able to speak and to see each other, they can share images such as MRIs, X-rays, patient records or drawings.

The video link was originally trialled between the Canary Islands and Malaga on the mainland in Spain. Huge numbers of patients were being transferred to the mainland for procedures that could not be done on the Canary Islands. Implementing the technology meant that instead of patients travelling for two consultations and then the operation, they could make just one trip for the operation.

During the six month pilot the number of return flights between the Canary Islands and Malaga were drastically cut, with considerable cost and time benefits. The solution is now a commercially launched product in the Telefónica portfolio in Spain.

In the UK, Side by Side is being trialled in the Western Isles, which has a population of about 26,000 spread out among a handful of islands across 130 miles from top to bottom. The islands are 30 miles from the mainland and vulnerable to the weather, with regular cancellations of ferries and flights.

NHS Western Isles has been looking to improve access, both decreasing the amount of time patients wait and enabling them to see appropriate specialists. At the moment, patients and consultants spend a lot of time

travelling. Patients travel from far-flung islands to a central location in the islands or to the mainland to see specialists, and consultants only visit certain remote places every three months. "It's an ongoing challenge to meet waiting time targets, which are continuously getting tighter," says NHS Western Isles medical director Dr Jim Ward.

The health board was looking for a technology that would allow them to do some consultations and meetings between clinicians remotely. O2's Side by Side was a good fit and they began using it at the end of January.

The possibilities are endless, says Dr Ward, because a conventional clinic can be run with the patient at one side and the clinician – with access to test results – at the other. High-quality cameras are used and a high-quality dialogue can be held without the need for either person to do much travelling.

"It's all about running the thing a bit leaner, providing a more efficient and accessible service for patients, being less dependent on the vagaries of the geography and the climate [and] meeting or exceeding your access targets," says Dr Ward. "The Holy Grail of doing things better but less expensively."

Travelling has to be factored in to consultants' job plans and Side by Side presents real opportunities to improve scheduling by making remote appointments at times that are convenient for patients and consultants. The idea has had fantastic buyin from consultants and nurses. Dr Ward says: "I think folk have become familiar enough with electronic communication and frustrated enough with the unpredictable need to cancel clinics that there's an appetite to actually try and do things differently."

Good chemistry

A three and six-month evaluation will be completed on patient and doctor satisfaction, clinical outcomes and economic benefits realisation. The next step will be to look at using the system to support services delivered from the mainland.

Dr Ward is excited about what the partnership between O2 and NHS Western Isles can achieve in the future. The health board is planning innovative solutions to meet the challenges of its geography and sparse population and a creative relationship is being formed in which a public and private sector organisation are learning from the best of each.

"There's a good chemistry between us and them in terms of the people [and] there's a clear commitment on both sides," says Dr Ward, adding that it took less than three months to get Side by Side up and running.

Another O2 product, Home Physio, was trialled at a hospital in Madrid and is now being used in several hospitals in the city for patients who have had knee operations. It enables patients to go home earlier and use technology to monitor their rehabilitation.











In this trial, patients attached two sensors to the knee joints and followed a set of exercises which are displayed on a pad or computer screen. Patients can see on the screen whether they are doing the exercises correctly. Performance on the exercises and a pain score are sent back to the hospital, where the consultant or physiotherapist can decide which patients need a personal visit. They can also send out different exercises to the machine that are more or less difficult, depending on the patient's progress.

Home Physio is not limited to knee joints and can be used for any rehabilitation where

physiotherapy is needed. Ten units at Berkshire East Community Health Services have been trialling Home Physio since January. Director for business and strategy Siobhan Melia found that financial envelopes were being squeezed year on year but the demand for community health services was increasing because of an ageing population and the greater prevalence of long-term conditions. She needed a solution that did not just involve employing more clinical staff.

Home Physio offers the prospect of improving patient experience by speeding up the rehabilitation process. It also opens up the possibility of running a physiotherapy service that sees more patients because fewer follow-up appointments will be required.

Slipping through nets

One of the critical success factors will be selecting the right patients. Ms Melia predicts the system will work best for patients with knee problems who are motivated and can understand how to use the equipment. She has asked the physiotherapists to be open minded and to think differently in their work.

It will be a big change for patients, too, who will be in control of their rehabilitation programme. They will need to take responsibility and be motivated.

"We're entering into a completely different sphere of healthcare delivery where this creates a patient-centred approach, which is one of the reasons I was really keen to pursue it," says Ms Melia.

As for the managers holding the purse strings, she believes the NHS has never had such a big lever for change as the current financial constraints have created. "I think it's incumbent upon everybody working in senior positions in the NHS to liberate the thinking about how can we do things differently," she says.

O2 are also working in the area of wound care. Improving wound care in the community has been an aim of Kath Vowden, nurse consultant for acute and



Telehealth advances mean clinical teams can be connected across multiple sites

chronic wound care at The Wound Healing Unit, Bradford Teaching Hospitals Trust and University of Bradford, for a number of years. But the technology has not been available to take forward the idea in a way that met data protection requirements.

Wounds occur in the elderly population because they have medical conditions that delay healing. Quality of life depreciates and patients live with pain and smelly exudates. Some of them slip through nets and do not receive the help they need.

A wound care audit across Bradford and Airedale identified pockets of good practice but also areas where staff needed support.

LOOKING AHEAD FIVE YEARS

If you took yourself five years forward, large quotients of people with the easier to monitor long-term conditions – diabetes, COPD, high blood pressure, chronic heart failure – will have equipment in their homes to monitor blood sugar, blood pressure and so on.

The readings will be automatically sent either to the NHS or to a third party monitoring centre. Patients will be able to see the readings on a piece of equipment at home or on a phone, whatever is the right vehicle for them.

Patients will be provided with a level of care that is based on those readings. It will be an entirely different system in which patients with long-term conditions don't automatically go into hospital once a month for a check up. Instead they will only go into hospital if their condition has worsened or become unstable.

Face-to-face contact with the NHS, which is the most expensive, most difficult to deliver, and most disruptive to the patient, becomes targeted at those patients who need it. Other patients will be capable of being managed at home.

Telehealth will identify the level of care patients need and help the NHS focus its resources, but in a safe and secure way that does not risk patient safety, and in fact empowers patients to manage their health.

Keith Nurcombe is managing director of O2 Health and global director for telehealth at Telefónica

Problems included poor assessment, delayed referral and overuse of antimicrobial dressing. Many of the issues were occurring in nursing homes.

A trial is set to begin in 30 nursing homes around the Bradford and Sheffield regions in which half will use mobile phones and electronic pens to assess wounds and half will provide the usual care.

Bradford has nearly three years of experience with digital pens and although they regularly use photography they have not used mobile phones in their work. It is good practice to take photographs of wounds because it keeps a record of how the patient has

progressed through the healing cycle. Mobile phones from O2 will be used to take the photographs, which will be automatically downloaded in an encrypted and secure way to an NHS-approved server where the images are held. "We cannot email these things because that is not secure enough for confidential data," explains Ms Vowden.

Experienced tissue viability nurses who are based in a hospital or primary care organisation will be able to look at the photographs, together with information on patient symptoms collected using the electronic pens. They will then telephone or email back instructions on how best to treat the patient. Staff can also be asked to take another photograph from a different angle if necessary. Research nurses will help support staff in nursing homes with taking the photographs and using the technology.

"The photos are quite important, possibly more important than the written data," says Ms Vowden. "But together they hopefully will give us enough data to really produce an accurate remote assessment."

The technology will be the first screening process for determining whether patients can continue their current treatment regime, need to see their GP or require hospital treatment. Problems should be identified early by expert clinicians working remotely with the patient, thus preventing complications.

Multiple benefits are anticipated, including better and more appropriate treatment and management of wounds that will lead to improved patient outcomes. Cost reductions are expected through better and earlier use of more appropriate treatments and referral at an earlier stage and referral of only the most urgent cases to secondary care.

"If we continue taking photographs at a regular interval then we can monitor the patient's progress over time, which is a luxury that currently doesn't exist," adds Ms Vowden. "It's quite exciting because the future is trying to get the best treatment close to home for everybody using expertise that is already available but is limited."







FINAL THOUGHTS

ACALL TO ACTION

The NHS must embrace new ways of working to increase efficiency in the community as services shift out of hospital, says O2 Health's Keith Nurcombe

The NHS has been charged with achieving unprecedented efficiency gains to plug the financial deficit and meet the demands of an ageing population with a greater prevalence of long-term conditions, new medical technology and increasing patient expectations.

As the white paper *Liberating the NHS* points out, new technologies are already being implemented for people with long-term conditions. These should help meet the challenges of the quality, innovation, productivity and prevention (QIPP) initiative.

The NHS can evolve to meet future demands by shifting more care to a community setting and transforming services, using technology as the enabler. The Health and Social Care Bill published on 19 January aims to move care more into the community through the abolition of primary care trusts and strategic health authorities and the creation of commissioning consortia.

Patients will be more involved in decisions about their treatment and care so that it is right for them – there will be no "decision about me without me". These GP-led groups will commission services based on what they consider their patients need.

Community services – whether that be district nursing, school nursing, midwifery or other services – will have to become more efficient because the demands on them will be greater. Health resources will need to be rebalanced in favour of the community but an increased slice of funds will not be the answer. District nursing, for example, will need to increase its efficiency so that it can cope with a wider range of disciplines and a wider range of patients.

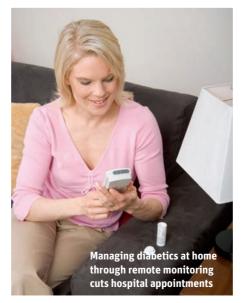
This transformational shift in the way the NHS delivers care will see it changing to reflect an entirely different care pathway and care model that is community based. It's a huge mental shift for the NHS, which has been secondary care focused.

'The NHS has to look beyond how it has traditionally worked and push the boundaries'

Focusing on the needs of patients and those who care for them will be paramount and in this respect the adage of O2 Health is very simple. If we can't deliver a beneficial outcome for the patient, we won't be involved.

Enabling district nurses to become more efficient so that they can spend an extra 10 minutes with patients on each visit obviously benefits patients. Managing diabetic patients at home through remote monitoring saves frequent hospital appointments and undoubtedly delivers a better patient experience.

Monitoring systems also help educate patients on how to manage their condition better and how to keep themselves as healthy and as fit as they can.



If you look at all the work we've done with NHS organisations, we may well have saved money and made systems more efficient, but ultimately we have delivered a better element of care or time with the patient. In other words, it's not a system for the sake of a system. There must be a patient benefit.

We launched O2 Health because we think there's a market we can work in. But ultimately we did it because O2 is about delivering consumer expectations. O2 is an insight-driven organisation; in other words we listen to what our customers want and then deliver the best solutions for them.

Pushing boundaries

02 Health operates under the same concept. We listen to patients and staff about what the problems are and then help identify a solution. We believe that we have the expertise and scale the NHS needs to form genuine partnerships that together can provide solutions which deliver better patient care. The fact that we're a telecoms provider is neither here nor there. It's much more about whether we have the right insight and understanding of the market. My team at O2 Health includes people with health experience, business consultants and technical experts.

We've created the Centres of Excellence so that once solutions have been tested and met with success, good practice can be shared with the wider NHS.

The NHS knows it needs to change. O2 Health can listen to the NHS and understand its challenges, then work together to come up with solutions. But the NHS has to be prepared to look beyond how it has traditionally worked and to push the boundaries. Our partners in the NHS have demonstrated that there are organisations out there which are ready and willing to do just that.

Keith Nurcombe is managing director of O2 Health and global director for telehealth at Telefónica.







O₂

Finding better ways to deliver healthcare

O₂ health is helping NHS Trusts and other organisations to improve the delivery of healthcare, while meeting some tough budget demands.

We're working together to understand the needs of patients and their care teams. Then delivering the technology that meets them.



We're better, connected