



Scottish Centre
for **Telehealth**

jit
joint improvement team



WORKING TOGETHER
TELEHEALTH & TELECARE
CONFERENCE 2009
REPORT

Joint work in telehealth/telecare gets ringing endorsement

Cabinet Secretary for Health and Wellbeing, Nicola Sturgeon, gave a ringing endorsement of telehealth and telecare at Working Together, the first annual conference of the Scottish Centre for Telehealth and the Joint Improvement Team in February 2009.

Highlighting the role of telehealth and telecare in addressing the complex range of challenges the NHS and social care services now face, Ms Sturgeon identified the most pressing challenges as a growing elderly population, increasing numbers of people with long term conditions, the rise in complex health needs, continuing health inequalities and people's desire to be treated at home, or as close to home as possible.

She added: "Telehealthcare has considerable potential to help us address all of these challenges. In fact, I'd go so far as to say that of all the things that have potential to make a real improvement in the quality of services to patients, I rate investment in this area as one of, if not the, most significant."

Ms Sturgeon then went on to announce the formal launch of the three-year TeleScot partnership project in Lothian, the largest such home monitoring scheme in Scotland. The project, funded with the help of Government money, involves some 400 patients with long term conditions who are using home monitoring equipment for self-managed care, anticipating exacerbations and avoiding repeated hospital admission.

The project is being evaluated through the TeleScot suite of randomised controlled trials.

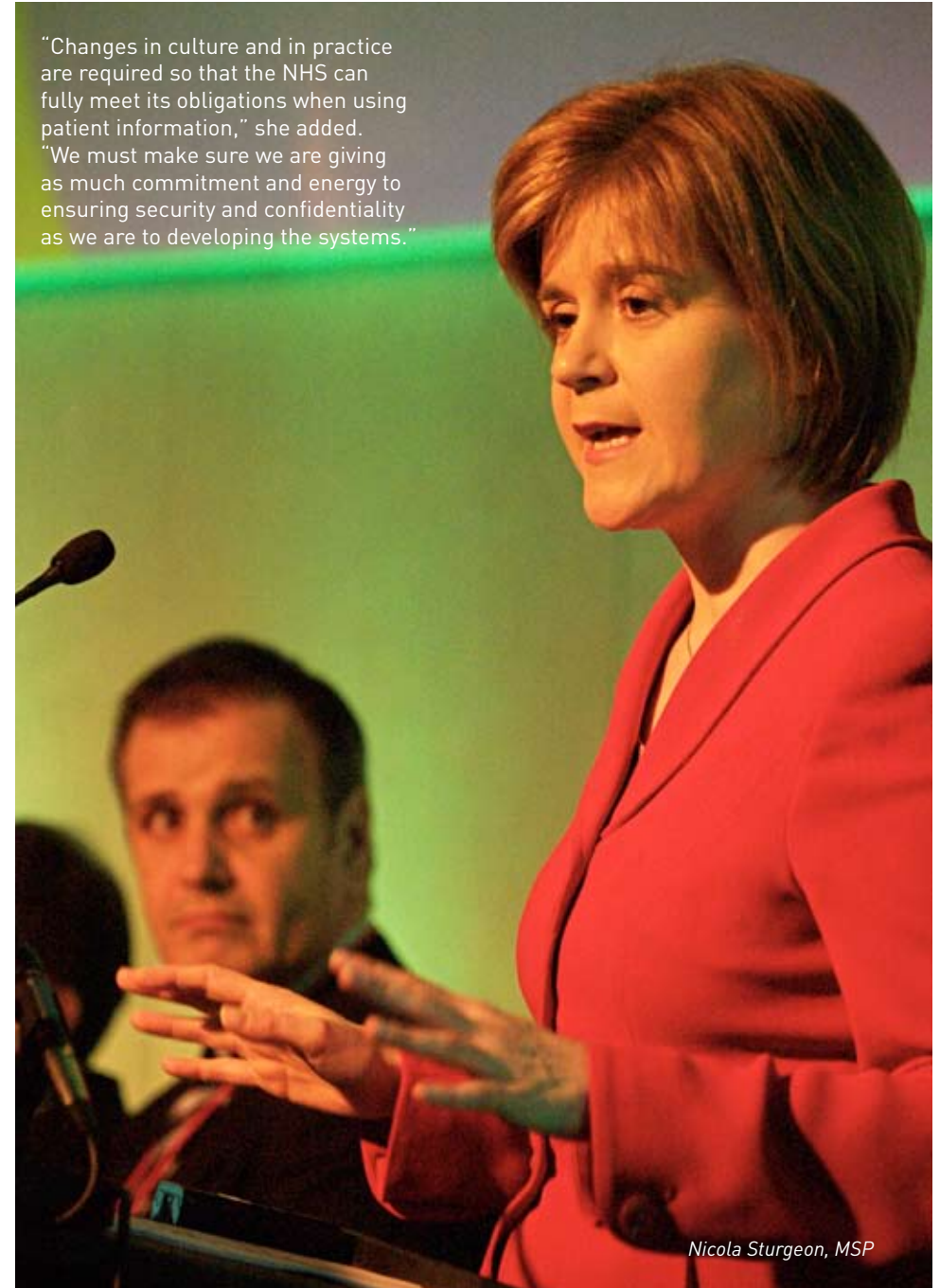
"Patients really like to be able to self-manage," Ms Sturgeon said. "This is not a bolt on substitute for human contact and we do need to recognise its huge potential for the way services are delivered. A key part of the demographic challenge is to keep people at home so we need to look beyond traditional interventions.

"Scotland, like many other countries, is very good at piloting projects but there are considerably fewer examples of telehealthcare being used routinely," Ms Sturgeon observed. "Scotland has the opportunity to lead the way and we need to grasp the opportunity."

Turning to the Government's e-health strategy published in June 2008, Ms Sturgeon reminded conference participants that the role of the strategy was to support the delivery of Better Health Better Care. "We have very deliberately chosen an incremental and pragmatic approach, building on what exists and filling in gaps rather than going for some big bang approach as other systems have attempted with varying degrees of success."

The success of the strategy, continued Ms Sturgeon, depends on real collaboration at all levels between the Scottish Government, the NHS and social care services so that the focus is on positive outcomes for patients, service users and carers.

"Changes in culture and in practice are required so that the NHS can fully meet its obligations when using patient information," she added. "We must make sure we are giving as much commitment and energy to ensuring security and confidentiality as we are to developing the systems."



Nicola Sturgeon, MSP

Telehealth promotes quality care and 'patients love it'

"Patients don't like telehealth. Patients absolutely love it," said Dr Brian McKinstry, a GP in West Lothian and Reader in Primary Care Research at Edinburgh University. However, he added, some clinicians report reservations.

Patients are very enthusiastic about telehealth which encourages evidence-based practice and quality care, according to Dr McKinstry. Telehealth should also benefit the health system as a whole, although further work is required to identify where these benefits will arise in the system.

Presenting details of the chronic obstructive pulmonary disease (COPD) pilot taking place as part of the TeleScot randomised clinical trials, Dr McKinstry explained that among clinicians' reservations were workload, the utility of physiological measurements and medico-legal issues.



Dr Brian McKinstry

He said: "From what we've seen so far telehealth encourages evidence-based practice and quality care but we do need robust, underpinning structures to observe and manage the data provided. It may not save time and resources in primary care and certainly in the initial hump you may need to work harder at it. I think we have to be honest with our colleagues that when they initially take on these things it may mean more work. Possibly the real benefits from this will appear further down the line in secondary care. We need rigorous research to discover where and how these systems are best applied and which physiological measures are best employed."

Patients taking part in the pilot complete a questionnaire every day and take physiological measurements once a week or as needed. The patients' answers to the questionnaire are scored and if any patient scores above a certain level, or the physiological measurements indicate a problem, the remote call centre contacts them.

Clinicians' concerns about workload are reflected in Dr McKinstry's own practice where antibiotic and prednisolone prescribing has doubled compared with the same period the previous year. However, Dr McKinstry noted: "We think this reflects previously undiagnosed exacerbations because we know these people don't get in touch as often as they should. And it partly reflects non-optimised care. When we started this all our patients didn't have antibiotics and prednisolone at home. By the end of it they all did."

"It's really important to have a good existing infrastructure in place to manage exacerbations. Just planting telehealth into a poorly organised system will not improve it. If anything, telehealth forces people to practice evidence-based care."

Telehealth & telecare potential must be evaluated

Telehealth and telecare have considerable potential but their use must be evaluated to establish how they improve patient outcomes and offer value to taxpayers. This was the view expressed to the conference by Alan Maynard, Professor of Health Economics at York University.

He urged the conference to find a way of "incentivising change" by finding the evidence that telehealth and telecare improve patient outcomes and using it in standards and contracts, for example the GP Quality and Outcomes Framework (QOF). He quoted figures published in the BMJ which showed that 46 per

cent of clinical care was of "unknown effectiveness".

"We want to be able to target resources so they actually get a return for our money. Targets should be more related to getting clinicians to change. We have to be more transparent and honest and begin to get better data to inform choices." Randomised clinical trials are the gold standard, he added, but they are complex and costly to design and deliver.

Professor Maynard described the NHS at present as characterised by a lack of evidence-based practice with unmanaged variations in clinical care, medical errors affecting 10 per cent of inpatients and no measurement of whether the outcome for patients is improved.

"There is a potential for telehealth and telecare to make us work more systematically," he added. "Demand is increasing but budgets are static. I think telehealth and telecare will be very useful to drive improvements."



Professor Alan Maynard



WORKING TOGETHER TELEHEALTH & TELE CARE CONFERENCE 2009



Telecare boosts independent living and quality of life

Telecare is very beneficial for users and their carers, particularly in supporting independent living and improving quality of life, the Telecare Development Programme evaluation has found after a two-year review.

Launching the final report of the programme's evaluation, Paul Trueman, Director of the York Health Economics Consortium at York University, which carried out the evaluation, said the programme had yielded results "to be proud of".

The evaluation of 32 health and social care partnership projects across Scotland funded by the Telecare Development Programme (TDP) found that 60 per cent of users reported an increased quality of life. Of these, 90 per cent felt safer, 70 per cent felt more independent and fewer than 5 per cent felt lonelier or more isolated.

At the same time, 75 per cent of informal carers felt the use of telecare had reduced the pressure on them and helped users live more independently.

The financial impact of the programme was also positive, added Mr Trueman, with estimated savings of £11.5 million identified. Some 30 per cent of savings were accounted for by reduced admissions

to care homes, a further 30 per cent arose from a fall in unplanned hospital admissions, almost 16 per cent resulted from quicker discharges from hospital and a similar proportion from fewer home check visits.

There were savings against all six of the programme's efficiency objectives, Mr Trueman told the conference. "These are strong findings to be proud of," he added. "But there's a real danger of getting lost in the financial headlines and it's important not to lose sight of the impact on carers and users."

One objective of the programme was to increase the availability of telecare and on this measure too the partnerships succeeded, Mr Trueman observed. "There were almost 8,000 new users of TDP-funded telecare during 2007/08," he said.

"The TDP programme appears to have been a very cost-effective use of resources even acknowledging that many benefits have yet to materialise. If we were to take a longer term view of this we would see much higher returns in terms of savings and much greater improvement in terms of patient and user outcomes."

However, Mr Trueman did sound a note of caution. "There were particular challenges associated with organisational and cultural barriers and trying to get change within health and social care.

"The report also emphasises the need to try to embed some degree of monitoring and evaluation as it (telecare) continues to be rolled out," he added. "We need to be very careful to continue to generate evidence of the impact of these interventions to support their continued use."

Photo-triage reduces referral times

Using images of skin lesions to triage patients reduces waits for referrals and frees clinic capacity without affecting the type of treatment patients receive, the conference heard.

Reporting the findings of an observational study of 477 patients, Forth Valley consultant dermatologist Dr Colin Morton said all conventionally-referred patients were booked into a consultant-led clinic compared to 28 per cent of the photo-triage group. A further 22 per cent of the photo-triage group joined a direct surgical list. The remainder went on to nurse-led treatment or another specialty. Overall, a consultant visit was avoided for 72 per cent of the photo-triage group.

Dr Morton added: "For 63 per cent of the conventional group definitive care was delivered at the first visit and this was boosted to 93 per cent for the photo-triage group. It was reassuring that photo-triage didn't alter the treatment that patients received."

Wider access to telemetry needed

Every healthcare professional and first responder should have access to telemetry for seeking advice about the best care for individual patients, concluded the workshop on developing telehealth recommendations.

During a discussion on guidelines, James Ferguson, Clinical Lead at the Scottish Centre for Telehealth, explained that while every ambulance has the ability to send an ECG it is only being done for three per cent of patients with chest pain. This, he said, was an example of the consequence of not including information in guidelines about how to deliver the recommended treatment.

Dr Ferguson added. "QIS guidance on CHD has just come out. It is good on evidence but doesn't go far enough. We need another guideline on how we should implement the guideline on the best treatment. Once a patient gets to a healthcare professional they should be able to get to appropriate care."

CONFERENCE SHORTS...

STANDARDS are important for delivering quality because they provide transparency and consistency.

Programme budgeting in **LONG TERM CONDITIONS** provides a way of looking at what is being spent where, with the potential to redirect or recycle funds.

A real-time telemedicine link means a **TELESTROKE** service can be developed if CT scanning is available.

EVALUATION studies need to be more independent and check for harm as well as benefit.

What's stopping us?

Identifying barriers to using telehomecare, and developing appropriate action plans to overcome them, are vital to successful implementation, a conference question and answer session heard.

Addressing the potential challenges of sharing information between organisations and individuals, encouraging the use of technology, persuading clinicians to change their practice and ensuring the sustainability of telehomecare projects, the speakers' panel noted that funding is sufficient to achieve what is needed.

More of the same won't do, was the key message from Mike Martin, Director of the Joint Improvement Team who pointed out that current services are not sustainable. Illustrating the impact of demographic change, Mr Martin said that keeping pace with demand would need a new 600-bed hospital every three years and a 50-bed care home every two weeks for 20 years. Health and social care services must help older people to remain independent, Mr Martin added. However, he noted that current services can make people less able to live independently by doing things to them rather than supporting self-managed care.

Telehealthcare has a vital role to play in helping people to remain at home and in making services sustainable, said Mr Martin. With a telecare infrastructure in place in all 32 local partnerships, he went on, the challenge is to accelerate its development to meet the growing pressures on social care services and the NHS. This is not simply a desirable option but an essential requirement, Mr Martin concluded.

Although funding beyond the next spending review is uncertain, the conference earlier

heard from Derek Feeley, Director of Healthcare Policy and Strategy at the Scottish Government Health Department, that finance should not be a stumbling block. He said: "Money can't be an excuse. We have enough money to do what we want to do. We do need to get all the telehealth players working together and we need to focus on quality because that's what matters to people."

Mr Feeley urged conference participants to concentrate on benefits to patients and not on the technology. This was a view echoed by Mr Martin who said; "It's always tempting to be driven by technology but it is we who should be driving the technology. If we just applied all the technology that's around just now appropriately it would make a huge difference." The problem is people's willingness to use technology, he added.

James Ferguson, Clinical Lead at the Scottish Centre for Telehealth made a similar point. "Patient-centred care is the biggest lie," he said. "It's patient-centred only until clinicians have to change their practice."



Travel might be key to telehealth uptake

Reductions in staff, patient and visitor travel could be the lever telehealth needs to drive it into routine use, said Scottish Centre for Telehealth Director Richard Wootton.

"Telehealth's principle advantage is in facilitating equitable access so its main role is in providing services to disadvantaged patients. That's not a strong enough advantage to drive it into routine use but the lever might be avoiding travel," he explained.

Using the example of the minor injuries service in the north east, Professor Wootton said that 45 tonnes of CO₂ emissions had

been saved and 220,000km of travel avoided by using video conferencing to see 95 per cent of patients referred to Aberdeen Royal Infirmary by community hospitals.

Most emissions attributable to the NHS arise from the manufacture of medicines and other supplies such as dressings, or from the production and preparation of patient meals so "telehealth is probably not going to affect those," he added.

"Most scope is in travel of which about half is staff travel and half is patient travel. We could reduce emissions by making travel more efficient."

Understand system before introducing IT

Service change can only be achieved successfully by understanding whole systems and how they can be improved without the use of technology, according to occupational psychologist and systems thinker John Seddon.

He described a systems approach to change based on looking at the experience of individuals from beginning to end and

examining whole pieces of work, and how work flows, with the help of detailed case studies.

"There are only two types of work," he added, "what's valuable and what's waste." Economies of scale, rules and standards all introduce waste, argued Mr Seddon.

A more effective approach is to "study demand to see what is predictable and of that what is valuable" and then gather the knowledge needed to understand how to improve the system as a whole before adding new technology. People should then be trained to deal with predictable demand, recognise unpredictable demand and pull in the expertise to deal with that from elsewhere.

Home monitoring demonstrated



John Sturgeon leading the home monitoring workshop.

A practical demonstration of a home monitoring device highlighted to conference participants the potential of telecare for patients living with long term conditions.

John Sturgeon, Head of IT at NHS Lothian, showed a conference workshop how chronic obstructive pulmonary disease (COPD) patients use the monitoring equipment to complete a questionnaire each day about how they feel and take physiological measurements such as blood pressure or pulse which are then

transmitted back to a remote server. The data can then be examined by healthcare professionals in order to anticipate exacerbations, allow early intervention and reduce the likelihood of hospital admission.

In discussion, it was recognised that the limitations of the technology infrastructure could restrict the implementation of home monitoring. However, technology is improving all the time and should not be seen as a barrier to better support for patients.



Scottish Centre
for **Telehealth**

Scottish Centre for Telehealth,
Foresterhill Lea, Aberdeen AB25 2ZY

T: 00 44 (0)845 337 3356
www.sct.scot.nhs.uk



Joint Improvement Team
Area 3ER, St Andrew's House
Regent Road, Edinburgh EH1 3DG

Tel: 0131 244 3535
www.jitscotland.org.uk