

From: Simon Stevens
Date: 14 February 2002

PRIME MINISTER

cc: Jonathan Powell
Jeremy Heywood
Andrew Adonis
Dominic Hardy
Sally Morgan
Ed Richards
Peter Hyman
Alastair Campbell
Michael Barber
Wendy Thomson

*IP: advise the
PCT members on what is
during what of this*

NO 10 SEMINAR ON NHS IT – MONDAY 18th FEBRUARY 4pm

You are chairing an internal seminar on NHS IT on Monday afternoon. The purpose of the event is to provide you with:

- an update on the state of NHS IT
- the vision and strategy for modernising it
- progress towards agreed implementation targets and milestones, and
- options for making faster progress.

It is therefore relevant both to the SR discussion, and to our longer term strategy on health. (You will remember that Derek Wanless also highlighted healthcare IT as one of the key areas for greater investment.)

I attach the briefing paper DH were asked to provide you on the current state of play, and options for a step change in NHS information systems. I also attach optional reading from one of the leading US health journals on the impact of new information systems on healthcare delivery. (There is a lot more I can give you in this vein if you are interested.)

As to format, Phil Hunt and Sir John Pattison (the DH lead director) will open with a short presentation, followed by discussion which you will chair for around 45 minutes. After you depart, the seminar will continue for another 45 minutes or so. I have also invited Gus, Andrew Smith, Peter Gershon and Andrew Pinder, amongst others. Cisco and Microsoft will also be present, as DH's private sector partners.

Questions to probe at the seminar include:

- is the vision and strategy the right one?
- is the proposed implementation route actually going to deliver? In particular, is the balance right between centralisation and decentralisation? (The private sector often argue that this is one area where an even more centralised approach is needed.)
- is what is being proposed ambitious enough? What would it take to go further, faster?

Simi

SIMON STEVENS

STRATEGY FOR MODERNISING NHS INFORMATION SYSTEMS

DH BRIEFING FOR THE PRIME MINISTER

The NHS' plan to improve care in the UK depends on a number of transformations in the quality, speed and capacity of the organisation. Information Technology (IT) and the electronically stored information it handles not only offer exciting opportunities for new patient and clinician services, they are vital to delivering the existing commitments that have been made – in short, effective IT underpins the future success of the NHS. With IT information can be captured once and used many times, working processes can be transformed and communication speeds accelerated. For the NHS these principles translate into many critical activities:

- Quality and safety – IT can support repeatable, traceable clinical processes and performance management;
- Openness – storing information electronically means that access can be given to wide audiences, creating visibility for citizens, patients, clinicians and their managers;
- Choice – the options available to access information are constantly growing, building choice as to the time and method of interacting with the NHS for all audiences;
- Cost-effectiveness and capacity – IT can eliminate duplication of effort and enables expertise to be focussed effectively on critical activities, generating cost savings or additional capacity for the NHS;
- Scale – data and software is inherently re-usable, allowing many different audiences to take advantage from viewing, reporting and interacting with information. The impact of IT can therefore be much higher, much faster than manpower based resources;
- Speed – IT can eliminate and automate working processes and cut communication times, speeding manual operations that take weeks to matters of seconds or minutes.

Practical examples of where IT can underpin the NHS are abundant – in patient record availability to citizen and clinician, quickly booking appointments & issuing prescriptions, scaling of scarce clinical expertise through telemedicine, knowledge capture & e learning through to the rapid transfer of critical documents like x-rays & MRI scans to both general and specialist audiences.

Where we were

In 1997 the NHS had a recent track record of IT disasters, e.g. Wessex, London Ambulance Service. It was focussed on administrative systems and the internal market. Local planning, local management and local budgets were the norm. Departmental systems were the nearest thing to clinical systems and information was not routinely shared beyond the hospital boundary walls. What few clinical systems existed were "enthusiast led". "Not invented here" was a common reaction to attempts to spread usage. To overcome this, *Information for Health*, the NHS strategy for information and IT was published in 1998 and widely welcomed as a national strategy for local implementation.

Where we are now

There has been a step change following publication of *Information for Health* in 1998. The subsequent publication of the NHS Plan and the e-Government Strategy in 2000 reinforced the direction of travel towards a focus on the patient and citizen. There was a shift in emphasis from administrative systems to those which supported clinical care or provided information about health and illness.

The existing programmes are delivering significant benefits. For example, in contrast to the position five years ago, we can:

- ring NHS Direct Call Centres 24 hours a day
- consult NHS Direct nurses and get health information through digital TV
- keep and use electronic health records
- use decision support systems
- transmit test results electronically to GP surgeries
- transmit x-rays and other images electronically
- email anyone in the NHS
- run national projects successfully (Project Connect, software rationalisation, National Health Authority Information Service etc).

Further details of progress on programmes of work are in Annex A and illustrations of where it has made a difference are in Annex B.

The consequence of these developments is:

- 10,000 GP Practices and 1,000 hospitals are connected to NHSnet
- NHSnet handles 1.5 million messages per day, usage rising by 8% every month.
- There are over 300,000 addresses in the NHS address book.
- Over 8 million traces on patients' administrative details are made each month through the National Strategic Tracing Service.

- 75 million datasets on NHS activity were processed by the NWCS over the last financial year.

We have also been very active in learning from other organisations – whether it is the Private sector (Cisco, Microsoft, BT), e-Government catalysts (Office of the e-Envoy, Office of Government Commerce) and other Departments (Education, Trade & Industry).

However, the interim report from Derek Wanless emphasised the relatively low investment in ICT in the NHS. Moreover, the NHS Modernisation Board's Annual report and a National Audit Office report on medicines management in NHS hospitals raised concerns over the NHS' ability to implement information management and technology with particular doubts over implementing electronic patient records.

Where we need to be

From our own experience over the last four years, and from interaction with Private and Public sector partners, we have learned that:

- the level and control of funding for IT in the NHS has not been sufficient – what resources have been available has not always been spent on IT;
- the degree of standardisation of technologies and guidance from the centre to the NHS has not been robust enough. More central authority and funding control is necessary;
- we do not have to choose between massive, complex, national systems or local, stand-alone choices of systems. By setting national standards and guidelines, encouraging the development of compliant local systems by vendors, and implementing a common national infrastructure connecting the NHS, we can have the best of both the traditional approaches, and avoid the worst;
- although the overall vision is generally understood, we can improve the communication and management of the delivery both Nationally and locally.

Vision and strategy for modernising IT

Our strategy for information and IT aims to connect delivery of the NHS Plan with the capabilities of modern information technologies to:

- support the patient and the delivery of services designed around the patient, quickly, conveniently and seamlessly

- support staff through effective electronic communications, better learning and knowledge management, cut the time to find essential information (notes, test results) and make specialist expertise more accessible.
- improve management and delivery of services by providing good quality data to support NSFs, clinical audit, governance and management information.

The strategic pillars required to deliver our vision are to:

- build connectivity, so that all staff have the bandwidth and access devices they need
- develop core national services that can be used throughout the NHS (eg Electronic Health Record Service, Booking Service, Prescriptions Service)
- create national standards for data interchange between local systems
- develop a compliant choice of systems for critical local applications (eg electronic patient record)
- capture knowledge of best practice and drive it into the National, regional and local IT environment
- manage funding to ensure IT receives the investment it requires
- work with industry to ensure we obtain the advantages offered by compliance with national data and systems standards
- work with the clinicians and Modernisation Agency to make sure the benefits offered by IT-supported working practices are delivered.

What will the NHS be like if these investments are made? The table below includes some examples:

Impact on	2002/03	2003/04	2004/05
Patients	<ul style="list-style-type: none"> • I can find out what services are available by looking on nhs.uk • I can get advice and guidance by calling NHS Direct 	<ul style="list-style-type: none"> • I can use my digital TV to get advice • There are (500) NHS Direct Information Points for me to access 	<ul style="list-style-type: none"> • I can receive telecare at home, so I can leave hospital sooner • I can access my own Electronic Records • I know that if I have an emergency away from home that a summary of my health record will be available • I can book appointments where and when its convenient for me (and get reminders)
Doctors	<ul style="list-style-type: none"> • I can communicate by e-mail with all my clinical colleagues both 	<ul style="list-style-type: none"> • I will be able to send clinical communications to other health care team 	<ul style="list-style-type: none"> • EPRs will be enable me to have clinical data online as well as reporting of results, and better communications

	<p>within NHS Trusts and in GP practices</p> <ul style="list-style-type: none"> I have access to an increasing range of good quality knowledge on the National electronic Library for Health 	<p>members</p> <ul style="list-style-type: none"> I (some) will be able to see how my clinical practice compares with others via national clinical audit I have access to best evidence and clinical guidelines through the National Knowledge Service 	<ul style="list-style-type: none"> I can prescribe drugs more safely at less cost by using computer support As a junior doctor I save 30 minutes a day in chasing results and getting ready for ward rounds. I will be able to use patient summaries (from their electronic Health Record), e.g. for emergency care I will know that clinical terms in use are clearly defined and support analyses of practice
Service Delivery	<ul style="list-style-type: none"> I can get basic IT skills training (European Computer Driving Licence) There are adverse incidents database and more disease registers available 	<ul style="list-style-type: none"> My electronic staff record will be available I will begin to access on-line learning materials through the NHS U I know how to improve data quality 	<ul style="list-style-type: none"> I can really work as part of a multiprofessional team, and across organisational boundaries, providing seamless care to a patient wherever I see them I can begin to use some video-based materials from the NHS U

Implementation issues

Tackling the under investment in IT

- the USA spends 6% of healthcare budget on IT. Extrapolations from local investment plans suggest that the NHS is currently spending up to £800m of its baseline revenue on IT. The interim Wanless report suggested that a baseline spend of about 1.5% on ICT in the NHS was insufficient. To deliver a comprehensive ICT strategy it is suggested that investment in the order of £2.5bn pa is needed.

National Standards for a National Health Service

- All advice shows that for IT, we must create and issue more national standards and guidance on IT to the NHS. This will consolidate the many procurements that are currently managed locally which erode savings. It will also eradicate unnecessary complexity and data / system incompatibilities. Thirdly this will increase the overall competence and skill in management and delivery of IT.

Accelerate the programme of Connectivity

- Increase Trust level bandwidth and connection points (Local Area Networks), and Inter Trust / Regional bandwidth (Wide Area Networks) to Broadband. Broadband describes a wide range of high speed, secure access technologies – a

capability that can be used to support a similarly wide range of clinical and management processes, including Telemedicine, e-learning and real time decision support.

Address three key issues at a national level

- Consent and Confidentiality. Patient consent, and who can access confidential data, are issues that constantly recur in NHS IT applications. At present, many solutions are being explored in the NHS. A single national approach that can then be built into operating processes and systems must be developed.
- Authentication of Users. As the use of IT increases, so does the importance of being able to both validate that a user is known by the NHS, and to reference their access privileges to data. Again, although this aspect may be managed locally (where people are known and managed) a national approach is vital to ensure the same level of security and confidentiality can be delivered to clinicians and patients
- Encryption & Security. A single national approach is needed on the technical solution to encryption of messages, and the security applied to information and access devices such as PCs.

Focus more resources on three critical national services

- EHR – the provision of a life long Electronic Health Record has numerous short and long term advantages – from the availability of critical patient information to out of hours clinicians attending patients, through to the collection of mass-database information detecting disease trends in the population
- Bookings – all patient journeys in the NHS encounter the booking of appointments. Providing a single National Booking service will enable the simplification of many local IT systems in delivering this vital information to the patient quickly
- Prescriptions – similarly to Bookings, Prescriptions as a service could be used by many local systems to speed and control the issuing of medicines to patients. Such services could be provided as services from outside the NHS by the Private sector

Define National Standards for Data interchange

- A suite of data definitions and tags are required to allow IT providers to develop compliant systems that allow the free transfer of information across NHS boundaries. These standards by definition must be developed centrally, once for the UK

Engage IT Industry to deliver compliant systems at National, regional and local levels

- Industry is absolutely necessary to deliver the local systems using National Data standards. The NHS central IT team has a key role in encouraging and managing the adoption of the standards by Industry

Develop the NHS IT management structure and competencies to reflect the changed mandate and level of activity

- The transformation of the NHS IT capabilities will increase the level of competence needed, and introduce the need for new skills. Clearer lines of management, and practice for capturing / spreading best practices will be essential to the delivery of the NHS IT Vision.

Options for making faster progress

The section above lays out the essential activities for delivering benefit to the NHS from IT to support our ambitions. There are however a number of actions that could be considered to accelerate progress further. The pros and cons are discussed below:

- Spend more than even the current increased funding plans.
 - Pros: increased rate of development and purchase of systems, faster development of new, innovative systems
 - Cons: Ultimate capacity of the NHS for implementation, need to develop / convert both legacy data, processes and working practices may limit progress

- Outsource some of the problem (eg connectivity, desktop)
 - Pros: Increase capacity and focus of the remaining NHS IT management, get best of breed services and skills into the NHS
 - Cons: delay while complex procurements are undertaken and contracts introduced. Availability of suppliers who can take on the scale of challenge. Industrial relations issues with existing NHS staff.

- Accelerate procurement practices
 - Pros ; Faster process to select suppliers, potentially more standardisation of suppliers and systems
 - Cons: Value for Money issues, Procurement regulations limit speed in any case

- Reduce choice for local implementation even further
 - Pros: More standardisation, faster development time for systems, higher industry interest in more consolidated market

- Cons: Longer time to develop requirements that suit all audiences in the NHS.
Choice issues for local trusts may lead to rejection of national options.

Conclusion

IT can both underpin the NHS forward plans and deliver exciting innovations in care for patients into the future. Our strategy is focussed on delivering a balance of national and local systems, across high speed, secure & standard infrastructure – with clinical care at its heart. To do so implies changes to the level of funding and the governance of IT in the NHS – and while there are options to accelerate delivery that have both pros and cons, some of the core decisions are clear and can be actioned immediately, given the necessary funding and commitment.

National Health Policy: A-11

From the Senior Policy Adviser

26 February 2002

Dear Sammy,

PRIME MINISTER'S SEMINAR ON NHS INFORMATION SYSTEMS

The Prime Minister held a seminar on NHS information systems with your Secretary of State, the Chief Secretary, Lord MacDonald, Lord Hunt, Sir Richard Wilson, Nigel Crisp and Sir John Pattison on 18th February 2002. Paul Corrigan, Andrew Pinder, Peter Gershon, Neil Holloway, Kevin Dean, John Hall, Ian Walker, Ed Richards, Dominic Hardy, William Perrin, Wendy Thomson, Michael Barber and I were also present.

Your Secretary of State opened by saying that IT was one of the key mechanisms for supporting NHS reform. The NHS was starting from a low base in this field, because over several decades there had been instances of high-profile IT project failures, and because of a historic lack of investment. The NHS spent between 1.5 and 2% of its budget on IT, compared with 6% in the US. Continuing, Lord Hunt said that the vision for IT in the NHS was that it should underpin the reform programme and provide fast and convenient access to services, through booked appointments, electronic prescribing and Electronic Health Records (EHRs). Historically, NHS IT had been dogged by too little managerial capacity and clinical ownership, but there was a real sense now that people were prepared to back IT developments. The key was to use stronger central direction to accelerate the pace of change and make more use of partnerships with the private sector.

Sir John Pattison said that the starting point for the IT programme in the NHS was the relationship between the patient and the clinician – from GP consultation, through diagnosis and prescribing support, to booking a consultant appointment and supporting the care pathway through treatment in hospital. The priority now was to accelerate the development of broadband connectivity and focus on the three areas outlined by Lord Hunt. In terms of delivery, the NHS Modernisation Agency was working with clinicians to help change working practices and drive compliance with standards.

The Prime Minister said that in his view good IT was a pre-requisite for a modern NHS. At the moment, it did not have the information systems which would enable it to deliver first class health services. The main issues to be tackled were how to ensure that the NHS had the right systems; how these systems were implemented locally by managers and clinicians; and how we increased the pace of development.

Neil Holloway said that the private sector was increasingly focusing on defining adherence to core standards in areas such as data exchange. The NHS should adopt this approach. This avoided the need to specify that every part of the health service had the same system, but would ensure that they could communicate with each other. Kevin Dean agreed that there was now a range of technologies which supported this approach, but they relied on ruthless central direction to ensure that everyone complied with the standards. Your Secretary of State added that, in the past, money allocated for IT had not been used for IT projects. The only way to ensure that this happened was to ring-fence it and insist that it was spent by the NHS against a set of national standards.

The Prime Minister said that it was clear that this needed a strong central focus within the Department and that now was a good time to make progress because Primary Care Trusts (PCTs) would shortly be taking up their full responsibilities. Nigel Crisp said that the NHS was now receptive to a central approach in this field and that funds should be earmarked centrally.

Andrew Pinder said that it was important to define a set of standards as quickly as possible as this would be the key building block for further developments. Electronic Health Records (EHRs) were another key component, but DH had to decide which of the pilot schemes it wanted to back and make quick progress. Increasing broadband capacity was equally vital, not least because this would enable EHRs to be moved around the system. Sir John Pattison agreed with these points and added that NHS staff would be receptive to changes in the way IT was delivered, even if working practices took some time to adapt.

The Prime Minister asked whether the programme could be accelerated. In the past, there had been uncertainties about the benefits and reliability of different technologies, but these were now much clearer. Taking forward the programme faster than currently planned would help underpin the reform agenda and also provide visible evidence of NHS modernisation to patients and the public. Peter Gershon responded by reporting that the Office for Government Commerce was

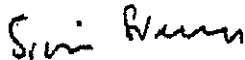
taking forward work to compress the time needed to procure systems. There was scope to reduce the time between project conception and the awarding of the contract if those involved had a clear idea of what they wanted. The Department needed to monitor private sector interest in the NHS IT programme to ensure that it could meet expected demand.

The Chief Secretary asked whether the new NHS systems would be compatible with those used by Social Services to ensure efficient data transfer at the interface between the two sectors. Sir John Pattison said that the Department was currently exploring how medical records would be transferred, perhaps using a unique NHS identifying number, although this was not the only solution. The Prime Minister asked about work in progress across Government in this area and asked Sir Richard Wilson for a paper outlining latest developments, including the possibility of a single identifier for individuals.

Summing up, the Prime Minister said that it was clear that good IT had a major role to play in helping secure fast and responsive NHS services. It was an area which had seen significant underinvestment in the past, but one which would undoubtedly benefit from greater investment in the future. There would be further discussions in the context of the Spending Review. He agreed with the priority areas of work outlined by Sir John Pattison, but asked the Department of Health to look again at its implementation programme and accelerate it where possible. Greater central direction of the programme would help provide momentum and ensure that NHS organisations complied with standards. He would be grateful for a further paper on progress and options for faster implementation in due course.

I am copying this letter to the private secretaries to the Chief Secretary to the Treasury, Lord MacDonald, Lord Hunt and Sir Richard Wilson.

Yours sincerely,



SIMON STEVENS

Sammy Sinclair
Department of Health