Delivery of eHealth Strategy 2011-17 Progress Report 2011-13

December 2013

1 - eHealth in Scotland

The eHealth strategy 2011-17[1] sets the agreed direction and goals for an incremental approach to technology enabled change across the NHS in Scotland. This is the second strategy, and builds on direction and achievements of its predecessor which ran from 2008 to 2011. The original strategy focused on the development and implementation of technology products and services, and this second strategy seeks to focus on outcomes and deliverable benefits to clinicians and patients.

The 2011-17 strategy was developed as a partnership between NHS Boards and the Scottish Government, with partnership governance structures (included at Annex A) underpinning the collective endeavour required to deliver on its aims, which are to:

1   Maximise efficient working practices, minimise wasteful variation, bring about measurable savings and ensure value for money
2   Support people to communicate with NHS Scotland, manage their own health and wellbeing, and to become more active participants in the care and services they receive
3   Contribute to care integration and to support people with long term conditions
4   Improve the availability of appropriate information for healthcare workers and the tools to use and communicate that information effectively to improve quality
5   Improve the safety of people taking medicines and their effective use
6   To use information and technology in a co-ordinated way to provide clinical and other local managers across the health and social care spectrum with the timely management information they need to inform their decisions on service quality, performance and delivery

The strategy is supported by the Infrastructure[2], Applications[3], Information Assurance[4] strategies and the eHealth Finance Strategy 2011-17[5].

Each NHS Board has developed an outcomes-focussed eHealth plan, which sets out how they will meet the eHealth strategic aims. Progress is monitored via:

- an annual end-year and mid-year review cycle, conducted between each NHS Board and the Scottish Government eHealth Division
- reporting against common progress measures, derived from the common elements across all plans
- the various governance groups, including clinical leads from each Board, and eHealth Leads from each Board.

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[1] eHealth Strategy 2011-17
[2] Infrastructure Strategy
[3] Applications Strategy
[4] Information Assurance Strategy
[5] eHealth Finance Strategy 2011-17

This report focusses on eHealth activity across NHS Scotland in support of the strategy since its publication in 2011. We have focussed on the major developments, but there has been excellent progress at local and national level in progressing the overall aims of the eHealth Strategy.

Future reports will be annual, with the next report covering 2013-14.

2 – Overview of significant progress against the six strategic aims

Introduction

This section sets out progress against each of the six strategic aims covering the financial years 2011-12 and 2012-13. Figures are presented from the most up-to-date information received from NHS Boards, in August 2013.

Aim 1 – maximise efficient working practices, minimise wasteful variation, bring about measurable savings and ensure value for money

This aim is focussed on delivering workplace efficiencies across NHS Boards, as they move from a paper-based to electronic-based information management culture. NHS Boards are on target to meet the 2014 interim strategy deliverable to have "well established programmes to replace paper with digital equivalents, along with digital dictation, voice recognition, scanning and video conferencing."

There has been significant progress, with many of the Boards focussing their activities on this aim. Implementing the Patient Management System has been the main focus for five health boards over the period.

Activity areas:
- Use of technology systems to support 'paper-light' approaches, for example Patient Management System.
- Use of technology to support efficient practice, for example videoconferencing, scanning, digital dictation etc.

Progress reported against the aim:
- The Trakcare Patient Management System, which provides healthcare staff with information about patients and their medical history, now covers 70% of the Scottish population, with around 60,000 users of the system in Boards.
- Scanning of paper records has increased with Boards reporting significant savings.
- In the first quarter of 2013-14:
    - there were over 23,500 videoconference calls across NHS Scotland
    - this represented nearly 13,000 hours of videoconference activity
    - there were 792 registered videoconference devices
- In addition, some Boards are making extensive use of visual tools on their computers, such as webcams, to support routine interactions
- There were 33 reported examples of different types of clinical services being provided at a distance using video conferencing, including stroke and orthopaedics
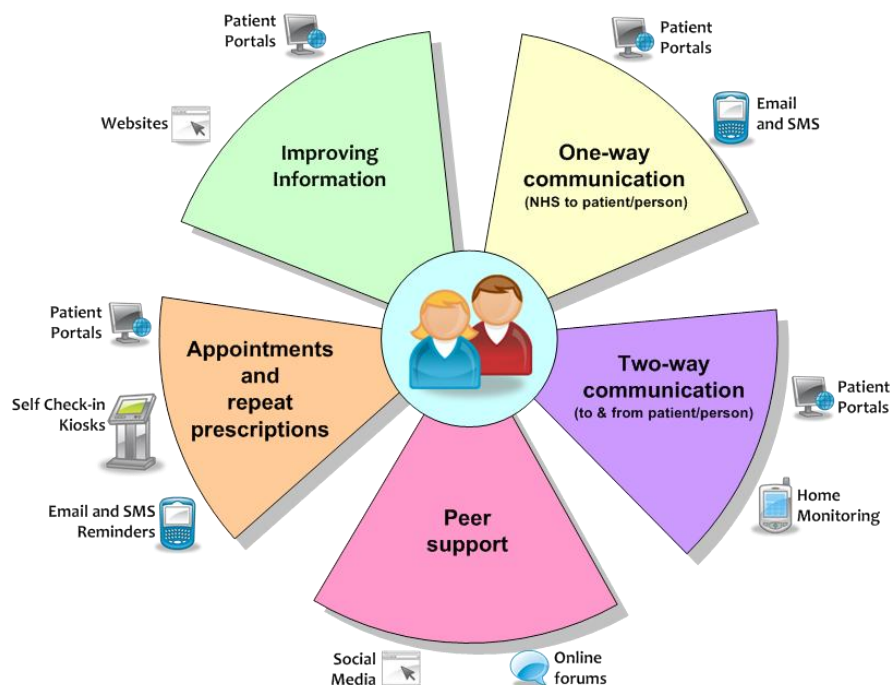
Progress expected in 2014:
- A continued move away from reliance on paper records as the default, to use of electronic record and document management systems

- 76% of the Scottish population will be covered by the Trakcare PMS system, with planned implementations in NHS Highland, NHS Orkney, NHS NWTC, NHS Shetland
- Greater uptake of videoconference services, including use of communicator tools across organisations
- Greater use of videoconference technologies to support clinical services and training

Aim 2 – support people to communicate with NHS Scotland, manage their own health and wellbeing, and to become more active participants in the care and services they receive

This aim is focussed on delivering improved communication channels and points of interaction for people when they come into contact with NHS Boards, as the service becomes increasingly person-centred in its delivery. This is underpinned by a focused plan that concentrates on electronic communications between individuals and NHS Scotland[6]. This meets the 2014 interim strategy deliverable, that "a national strategy to guide further work in this area will have been developed and agreed."

Progress across the five activity areas has been mixed. A considerable proportion of the activity is predicated on GPs enabling transaction services, and the regional NHS Boards and national services linking their services together. All of this activity requires a considerable amount of business change and support. During this period the focus has been on getting the IT systems bedded in to support this activity.

[6] Person-centred eHealth Strategy and Delivery Plan

Progress against the aim:
- "Person-centred eHealth Strategy and Delivery Plan - Stage One" published in December 2012 (since re-named the "Strategic Aim 2: electronic communications between individuals and NHSS"
- Both GP IT systems used in Scotland (EMIS and Vision) now offer the GP practice facilities to provide online appointment booking and ordering of repeat prescriptions. GPs are increasingly offering these services to their patient
- Pilot developments of patient portals in Lanarkshire and Lothian for secondary care services
- Renal Patient View and My Diabetes My Way patient portals are delivering tailored support and information to patients with specific conditions
- ALISS (Access to Local Information to Support Self-Management) project, which aims to make it easier for people to find local resources to support self-management. ALISS has been integrated into the Living it Up portal
- Increased use of social media (such as Twitter, Facebook, RSS feeds) to sign-post and provide useful information
- Access to information via NHS websites and other media (including NHS Inform and Looking Local, and Digital TV)
- Use of SMS messaging for reminders and short pieces of information, with an estimated 26% of GPs providing SMS reminders for appointments
- Piloting the instalment of kiosks - enabling people to self-check-in and view information when they go to their appointments

Progress expected in 2014:
- Increased uptake of online services offered by GP practices and Boards
- Inclusion of main activities and learning from developing the Strategic Aim 2 Plan into the overall eHealth Strategy refresh.
- Continuing development of patient portals

Aim 3 – contribute to care integration and to support people with long term conditions

This aim is focussed on delivering improved underpinning for care services, as the service moves to more integrated arrangements. We have worked closely with the Bill teams steering legislation for adults and children's integration through the Parliament, in the 2013-14 session. The production of the health & social care information sharing strategic framework is proceeding to schedule.

The development of the Key Information Summary (KIS) has been a major achievement. KIS records are co-produced between people with complex or long term conditions and their GPs, and make important information available to the wider clinical team involved in that person's care. Another major change has been the transition from the national "one size fits all" approach of the

national eCare programme, to locally led initiatives. This has resulted in the five Data Sharing Partnerships that used eCare migrating on to a range of locally developed innovative solutions. These provide more extensive information sharing capabilities, designed to meet local needs, than was available previously.

Activity areas:
- Health and social care integration
- Rollout of the Key Information Summary (KIS)

Progress against the aim:
- As at August 2013, there were 743 GP practices live with KIS across Scotland, representing 74% of all practices. Of these 478 use the EMIS software and 265 use the Vision software
- As at September 2013, 38,000 KIS records had been created with numbers increasing at around 1,200 a week.
- The original target was that 40,000 KIS would be created. At current rate, the projection is that 100,000 will be created.
- In July 2013, 4,600 KIS records were accessed by practitioners across Scotland
- Supporting Data Sharing Partnerships to move from the national eCare platform to local initiatives, which are reported in NHS Board eHealth Delivery Plans
- Close working with colleagues across NHS Boards, local authorities and other delivery partners, to draft the health and social care information sharing strategy

Progress expected in 2014:
- Continued rollout of KIS capability, to meet the 2014 interim strategy deliverable, which states that "KIS will have been rolled out nationally across Scotland for those who need it."
- Publish a Health & Social Care Information Sharing Strategic Framework, in line with the 2014 interim strategy deliverable that "a new health and social care IT strategy will have been developed in partnership with local authorities". Key challenge is engagement of all appropriate stakeholders as well as scoping IT requirements and associated resource requirement.

Aim 4 – improve the availability of appropriate information for healthcare workers and the tools to use and communicate that information effectively to improve quality

This aim has seen significant progress in the use of new technologies, such as clinical portals and mobile solutions, to more effectively support practice. At the same time, improved arrangements to support effective information handling, which underpins this aim, have been implemented.

Activity areas:
- Use of portal technologies
- Use of mobile technology
- Information assurance

Progress against the aim:
- Strategies on information assurance, applications and infrastructure published.
- Single Sign on, an approach where a practitioner gains access to multiple clinical systems via a single log-on process, and improved audit tools (FairWarning) have been introduced. Those Boards that have implemented FairWarning to date (NHS Borders, NHS Fife, NHS Lothian) report a significant reduction in information governance incidents.   All NHS Boards have plans to implement this technology
- 12 Boards reported a total of nearly 47,000 users accessing clinical portals, which enable staff to access a more complete picture of patient information at the point of care
- Clinical portals were accessed over 670,000 times in the first quarter of 2013-14
- There are 14 agreed priority items of clinical information to be included in clinical portals and for the NHS Boards that provided a number, all provided access to at least 9 of these, with 3 reporting access to all 14 items.
- Increased access to and use of mobile devices in support of community health services resulting from additional mobile IT expenditure (£1 million in 2012-13).
- Over 11,000 staff across all Boards have completed the Safe Information Handling foundation level eLearning package, with more than 30,000 enrolled to undertake it.

Progress expected in 2014:
- Continued progress towards the 2014 interim strategy deliverable that "all territorial Health Boards will be using clinical portals (or electronic windows to information) and the priority information items agreed by clinicians will be available at the point of care."
- Scottish Wide Area Network (SWAN) public sector network to be procured. NHS NSS to act as service provider going forward. Implement new broadband contract with no risk to business continuity.
- Continued programme of training for all staff on safe information handling.

Aim 5 – Improve the safety of people taking medicines and their effective use

This aim is focussed on improving communication and reconciliation across all transitions of care (for example, when being admitted to or discharged from hospital), and making electronic patient medication summaries available to appropriate healthcare workers in both scheduled and unscheduled care. The use of the Emergency Care Summary to support this within scheduled care

has been very encouraging. NHS Boards will increasingly focus on delivering improved arrangements for Hospital Electronic Prescribing and Medicines Administration (HEPMA) in the second half of the strategy cycle.

Activity areas:
- Medicines reconciliation, which is the process to ensure that all the medication a person is currently taking is correctly documented when they are admitted to hospital, moving to different clinical areas within a hospital or at discharge into the community.
- Hospital Electronic Prescribing and Medicines Administration (HEPMA)

Progress against the aim:
- The Emergency Care Summary (ECS) continues to have around 250,000 accesses per month. This is being extended to scheduled care, primarily in support of safe medicines reconciliation.
- The technology supporting the ECS application has been increased in its capacity by 200% to assist in this.
- 5 Boards achieved over 70% electronic Immediate Discharge Letters within 24 hours, 3 Boards achieved 30-68%.

Progress expected in 2014:
- Key opportunity and challenge is maximising the capability of all eHealth systems to improve efficiency and increase the flow of information between primary and secondary care which will improve patient care and safety. "Closing the Loop" commission will focus specifically on improving the exchange of medicines information between acute hospitals and GP practices when patients are admitted and discharged.
- Continued progress towards interim strategy deliverable that "we will have enabled an accurate and up-to-date electronic medication summary to be available to the appropriate healthcare workers involved in a patient's journey through the healthcare system."

Aim 6 – provide clinical and other local managers across the health and social care spectrum with the timely management information they need to inform their decisions on service quality, performance and delivery

This aim was put in place to support the implementation of business intelligence systems, providing management information to NHS managers. NHS Boards have achieved good progress with this aim. However, it is recognised that we now need to focus on building upon Scotland's acknowledged leadership in the use of eHealth records for research and to support this the Health Informatics research and Advisory Group (HIRAG) has been established, under the chairmanship of the Chief Scientist.

Activity areas:
- Management information systems
- Research use of health data

Progress against the aim:
- All NHS Boards progressing on improvements in using "real time and near time performance data" to drive quality improvements.
- In the first quarter of 2013-14, a total of 9,000 staff accessed Management Information systems across the NHS in Scotland.
- There were over 240,000 accesses of these systems in the first quarter of 2013-14.
- Formation of the Health Informatics research and Advisory Group (HIRAG) reporting to the eHealth Strategy Board, completing an interim strategy deliverable.

Progress expected in 2014:
- Continued progress towards the interim strategy deliverable that "NHS Boards which are active in the acute sector will have in place systems which provide their clinical and other managers with timely management information". For example there are a number of clinically led projects to develop dashboard technology in various health boards. These provide real time information on key information such as patient waiting times.
- Continuing roll-out of systems to provide patient specific information within wards that help improve the flow through hospitals as well as providing up-to-the-minute information on a patient's status.
- Outputs and deliverables from the work of HIRAG, such as scoping study, carried out in collaboration with NHS Boards, to determine the feasibility of creating extracts of laboratory, imaging and prescribing datasets for research.

3 – Finance and the eHealth Information Management & Technology (IM&T) Expenditure Survey

eHealth had a revenue budget of £90,300,000 in 2011-12 and £88,703,000 in 2012-13, with the bulk of this budget allocated to NHS Boards, at the beginning of the financial year. In 2012-13 this amounted to around £78,901,000: around 89% of the budget. in 2011-12 the total was £83,498,218: almost 93% of budget. The money that is retained centrally is primarily used to commission or support work that will have potential national application. This arrangement was agreed as part of the eHealth Finance strategy, which extended the planning horizon for Boards and incentivised collaborative working for the benefit of NHS Scotland as a whole.

The Scottish Government provides revenue funds, with the NHS Boards using their own further revenue and capital funds to support eHealth. The bulk of the revenue budget distributed to Boards was for business as usual activity including maintaining the infrastructure on which modern healthcare delivery depends, and this remains a large part of the focus for eHealth departments in Boards. The breakdown of these figures is outlined, below.

Year	Applications Fund	Strategic Fund	Infrastructure Fund	Other
2011-12	£30,345,000	£16,000,000	13,019,218	£24,134,000
2012-13	£33,788,986	£17,050,000	£14,019,218	£14,043,251

The applications fund pays for the on-going upkeep of the core national IT systems in the NHS whereas the infrastructure fund pays for things like N3 broadband and email services. The 'other' fund covers large one off payments for things such as enabling national initiatives, capital charges, and) and depreciation charges. NHS Boards working collaboratively are making efficiencies that will free up funding to develop the strategic aims and support innovation.

It is recognised that the 6 strategic aims outlined in section 2 require additional funding to make sure that the outcomes can be delivered. The strategic fund of £17,050,000 is to help Boards do this.

The eHealth Finance strategy identified the potential for exploring opportunities for shared services within NHS in Scotland. It also committed to carrying out an expenditure survey, in tandem with the process of devolving increased management responsibility to NHS Boards, for the management of eHealth budgets. The survey's overall aim was to assess whether value for money is being derived from investment in ICT, thereby addressing one of the key points raised within the McClelland report on investment in ICT within the Public Sector.

The survey focussed on the 2011/12 financial year, and used the Gartner methodology and toolkit. This benchmarking model has been widely used by both public and private sector organisations.

The survey confirmed that the overall level of expenditure by NHS Scotland on ICT in 2011/12 was £236.5m. Of this total, £213m was incurred on expenditure items of a revenue nature with £23.5m incurred on capital expenditure. Within total revenue expenditure of £213m, territorial NHS Boards incurred approximately 70% with 25% incurred by Special Health Boards, and the remaining 5% incurred centrally by the Scottish Government eHealth Division.

Overall, it was concluded that the NHS in Scotland spends £39.1m less on delivering IT services than the Peer Group selected by the Gartner methodology would spend to "run the NHS environment". A set of recommendations for key strands of work were provided, as part of the final survey report. These will be considered and factored-in to the update of the overall eHealth Strategy.

4 – Future activities

The activities being progressed during the third year of the strategy (2013-2014) include the publication of the new health and social care information sharing strategic framework, discussions around person-centred eHealth, as well as continued progress by NHS Boards against all six aims of the eHealth Strategy.

NHS Boards will also be progressing the business as usual aspects of eHealth, with a focus in 2013-14 expected to be on the replacement and modernisation of the CHI (Community Health Index) System and related children's health systems.
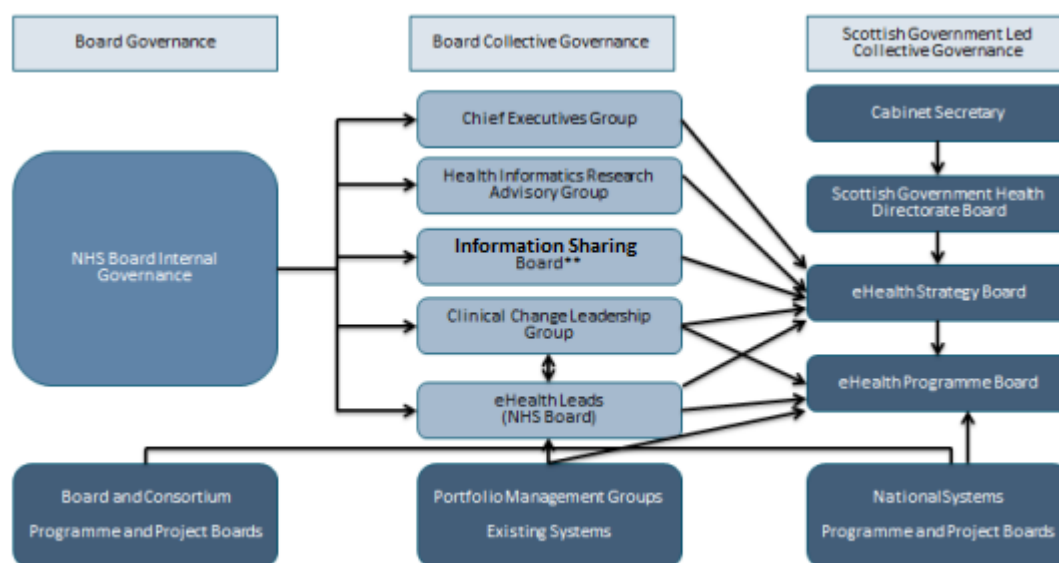
There will be a greater focus on certain elements of the strategy, such as the implementation of systems to exchange medicines information between GP practices and acute hospitals, and for Hospital Electronic Prescribing and Medicines Administration (HEPMA), subject to available funding.

A comprehensive review of the overall eHealth strategy is being planned for 2014. This will set out how eHealth can support and take into account:
- The Workforce 2020 strategy
- The new arrangements for integrated care delivery
- Increasing need for mobile and flexible technology
- The drive to make all activities person-centred
- New and emerging technologies
- The need to support the collection and use of Big Data

Progress against these elements will form the major substance of the 2013-2014 Annual Report, due to be issued in November 2014.

Annex A: eHealth Governance

** ISB also reports to the Local Authority Sectoral Board and the Data Management Board

The eHealth Strategy Board provides the overall strategic guidance and investment approval for eHealth in Scotland. The Board is chaired by the Director-General Health and Social Care and Chief Executive of NHS Scotland for the Scottish Government, and has the following members, as at November 2013:

Robert	Calderwood	Chief Executive, NHS Greater Glasgow & Clyde
Richard	Carey	Chief Executive, NHS Grampian
Dr Stella	Clark	Primary Care Medical Director, NHS Fife
John	Connaghan	Director of Health Delivery, SGHD
Ian	Crichton	Chief Executive, NHS National Services Scotland
George	Crooks	Medical Director, NHS 24/ Scottish Centre for Telehealth
Frances	Elliot	Deputy, Chief Medical Officer, SGHD
Angiolina	Foster	Director for Health & Social Care Integration, SGHD
Mike	Foulis	Director for Children & Families, SGHD
John	Gallacher	Regional Organiser, UNISON
John	Matheson	Director of Finance, eHealth & Pharmaceuticals, SGHD
Alex	McMahon	Director of Strategic Planning, Performance Reporting & Information, NHS Lothian
Anne	Moises	CIO, Information Services & Information Systems (ISIS), SG
Ros	Moore	Chief Nursing Officer, SGHD
Prof Andrew	Morris	eHealth Director, NHS Tayside
Brian	Robson	Medical Director, Quality Improvement Scotland
Gillian	Smith	Director, Royal College of Midwives
Eddie	Turnbull	Head of eHealth Division, SGHD
Robin	Wright	Director ofHealth Information & Technology, NHS Greater Glasgow & Clyde

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