

Position Statement on Electronic Health Records in Scotland

Strategic Background

1. The current eHealth Strategy (2014-17) for Scotland was published in March 2015. The Strategy is built around seven strategic aims:-

The eHealth Aims

- To enhance the availability of appropriate information for healthcare workers and the tools to use and communicate that information effectively to improve quality.
- To support people to communicate with NHSScotland, manage their own health and wellbeing, and to become more active participants in the care and services they receive.
- To contribute to care integration and to support people with long term conditions.
- To improve the safety of people taking medicines and their effective use.
- To provide clinical and other 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.
- To maximise efficient working practices, minimise wasteful variation, bring about measurable savings and ensure value for money.
- To contribute to innovation occurring through the Health Innovation Partnerships, the research community and suppliers, including the small and medium enterprise (SME) sector.

2. All of the above aims rely on progress towards reducing the reliance on paper records and making systems interoperable, and doing so with infrastructure that is resilient, secure and flexible. Delivering the aims will provide improvements in information availability and service delivery for clinicians, social care staff and other third sector partners; citizens; and managers, planners and researchers.

Health and Care Professionals

3. The current eHealth strategy is the third in a series that is delivering a long-term objective to provide health and social care workers with access to the right information, whenever and wherever they need it, to inform their decisions and ensure the best possible care is given to each individual.

Citizens

4. The strategy also recognises that for person-centred care it is also essential to provide reliable personal health and wellbeing information to citizens themselves to allow for effective self-management and health improvement.

5. The Government has set an objective that by 2020 citizens will be able to use a citizen "portal" to access a personalised view of their health and care information,

enhanced and presented as required to make it accessible, informative and useful to them and their carers, and where appropriate make their own contributions to the information, thus sharing it with the relevant health and care professional. They will also be able to access authoritative information about managing their health, prevention and self-management of conditions. In addition, they will use secure two-way electronic communication with their health and social care providers to book and manage appointments, order repeat prescriptions and, where appropriate, use eConsultation facilities, resulting in convenience for individuals and reduced transaction and administration costs for health and care services. A “portal” should not be interpreted as being a website or an App. Instead, it is the mechanism through which information is exchanged using a “platform” that draws information from the appropriate sources and sends it to the appropriate destinations (information stores, computers, tablets, smartphones, clinical instruments, sensors, etc), while applying the necessary privacy and consent controls.

Managers, Planners and Researchers

6. The strategy recognises that frontline systems provide the data that can be collated and analysed at local, regional and national levels. This can then generate information that can be used for a range of purposes, from clinicians being able to analyse datasets to enable examination of their own clinical practice, through to national and international research and innovation using multiple data sets, unstructured data, and data linkage. The more information that is recorded electronically, in a standardised way, and easily linked, then the greater the opportunities offered by advanced data analytics.

The Integration and Interoperability Task

7. The task is a challenging one. It requires a communications infrastructure that has the capacity to transmit information from health and care systems to endpoints which may be remote and mobile (as is the case for many community based health and care workers). To this end the health and social care strategy is dependent on the roll-out of broadband and high-capacity mobile data services.

8. Furthermore, information about any individual still resides in different organisations and in different systems. Together it comprises that individual’s information that documents their health history over the course of their life and their current known health status. In principle, whenever and wherever (from the home to the hospital) a person has an encounter with health and care services this information should potentially be available to the health and social care practitioner and the individual. In practice all levels of detail may be unnecessary, and indeed excessive (to the detriment of efficiency, quality and safety), and accurate, up-to-date summary information will usually suffice, whilst viewing of some information may be restricted for reasons of privacy and confidentiality. However, the underpinning principle that eHealth is working to at local, regional and national levels is that that organisational and system boundaries should not prevent person-centred care which requires integrated person-centred systems and management of information.

9. NHSScotland has in place two key systems that allow information to be shared across all points of healthcare. These are the national Picture Archiving and Communications System (PACS) and the Emergency Care Summary/Key Information Summary. While PACS has a very specific use, the information held in the ECS/KIS has much broader utility. The ECS was created to allow key patient information to be electronically viewed, subject to patient consent, by clinicians who do not have access to the core GP record. The ECS allows sharing of summary patient information from electronic GP records with other parts of the health service and contains demographic, allergy and medication information extracted from GP-IT systems. All patients in Scotland registered with a GP practice will have an automatically updated ECS record unless they have actively opted out.

10. The KIS was introduced in Scotland in 2013 and has been designed to support patients who have complex care needs or long term conditions, or who need palliative care. The KIS extends the ECS summary to include additional GP and patient provided information and is created with the patient's involvement and consent. However, at the moment access to ECS/KIS is limited and the technology only allows for update at the GP practice system based professionals based in the practice. The strategic objective is to provide an Electronic Healthcare Record.

The Electronic Healthcare Record (EHR)

11. The commitment to providing citizens with a personalised view of their health and care information will be realised by making summarised specific information, pulled together on demand from a range of computer systems in the NHS Boards (and eventually social care systems), visible and accessible to each individual. This will be in parallel to appropriate access by health and care workers to a similarly up-to-date and interlinked Electronic Patient Record (EPR) for professional use. Both commitments will be delivered through mostly common technical developments and integration.

12. A personalised EPR differs from a Personal Health Record (PHR), which is generally understood to mean a record generated and created solely by the patient for their own use, for instance through the use of commercial health and fitness Apps and devices (see information box below).

With an Electronic Healthcare Record we mean "a comprehensive set of health and care data in electronic form".

The records held by GPs, NHS Boards or other care providers for clinical (and other professional) use are collectively known as Electronic Patient Records (EPRs).

A Personal Health Record (PHR) is a set of health and wellbeing data collected and held by citizens for their own personal use and to self-manage their conditions.

A "tethered" Personal Health Record (PHR) refers to the situation where health and wellbeing data passes to and from the EPR through a portal and information exchange platform.

13. It should be noted that an EHR is not a single thing. Different clinicians will want to view different aspects of information in the context of their interaction with

the individual. That information will be drawn from a set of systems using portal technologies. To ensure that the development of EHRs is undertaken in a coherent manner across Scotland, the principles of rationalisation, convergence and no unnecessary duplication which underpin NHSScotland's eHealth collective governance applies. Over the period of the eHealth Strategy there has been convergence around key products such as TrakCare Patient Management System, EMIS/Vision, PACS, SCI Store, ECS/KIS providing the main sources of information for the EHR. There has also been concentrated activity across the NHS Boards to digitalise information that is currently created and received on paper.

The Approach Being Taken

14. Through consultations with clinical, patient and other key groups, the Scottish Government's eHealth Division has developed a strategic approach to electronic records in Scotland which combines the clinical and citizen perspectives for implementation to 2020, as well as requirements for the longer term. The approach is incremental and involves synchronised work at a local, regional and national level. This approach has seven key outcomes on EHRs which support all the aims of the current eHealth Strategy (see Figure 1).

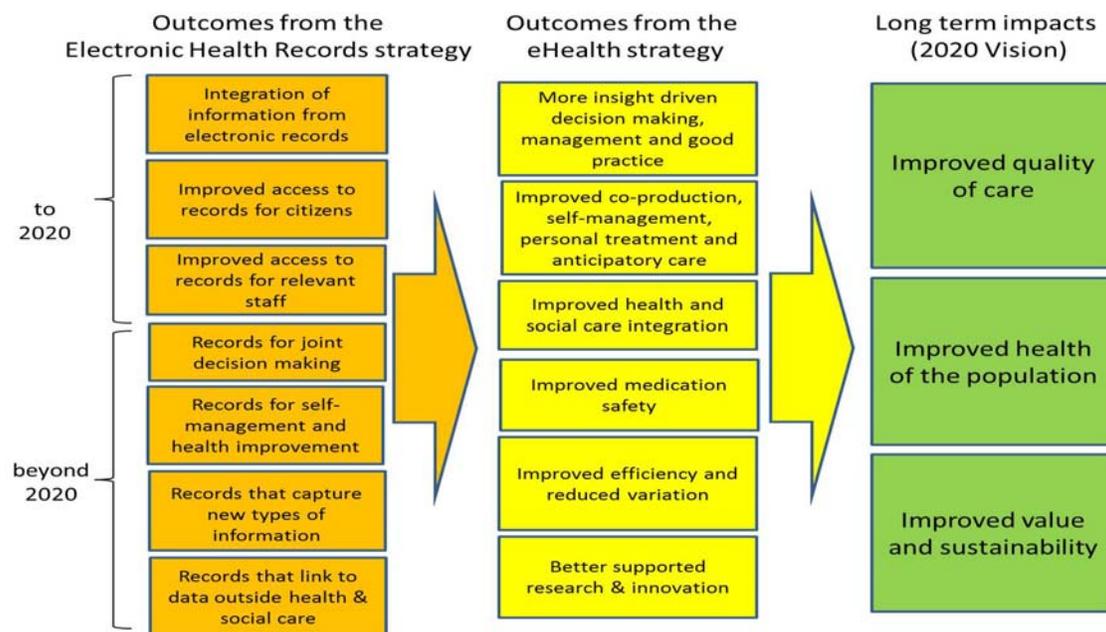


Figure 1. Key strategic outcomes on Electronic Health Records supporting the aims of the eHealth Strategy 2014-2017 and the 2020 Vision.

Activities across Scotland to realise the outcomes

15. The agreed priority outcomes to 2020 are integrating patient information and widening access to EHRs for both professionals and citizens. To ensure progress towards these, the eHealth Strategy and individual NHS Board delivery plans are supporting a multiple track approach covering a range of activities highlighted in Figure 2.

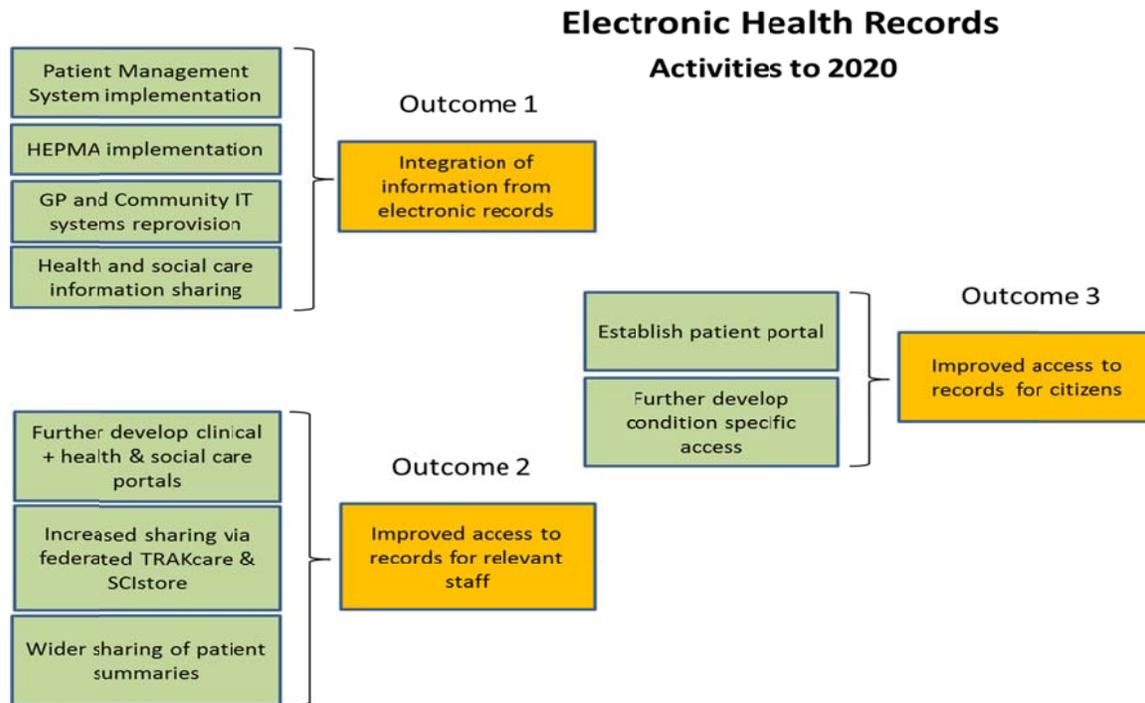


Figure 2. Current activities in Scotland supporting strategic Electronic Health Record outcomes to 2020

Outcomes 1 and 2 (Integration of information from electronic records and improved access to records for relevant staff)

16. Projects are in place locally in NHS Boards (in some cases working with Local Authorities) for Outcomes 1 and 2 and the amount of information available through portal technology as an EHR is variable across NHS Boards. The extent of information available is generally dependent on the NHS Board's implementation programme for key systems (eg TrakCare Patient Management System) and the rate of their digitalisation programme.

17. While most interactions with health and care services are local to a NHS Board and Local Authority, several healthcare pathways cross these organisational boundaries. Therefore each region has work underway to provide access to systems and information on a regional basis.

18. Key national projects are also underway to fill significant gaps in the "electronic landscape". For example Hospital Electronic Prescribing and Administration is now "live" in three NHS Boards (with plans to roll-out across Scotland) and this will provide information on medications that was previously not accessible through portal technology. The CHI system is also being modernised so that it can act as a true index and identify the systems where the component parts of an EHR for an individual reside. It will also have the capability to record in one place an individual's preferences.

Outcome 3 (Improved access to records by citizens)

19. The benefits of providing patients with better health information and services include improved self-management and co-production of care plans, greater patient satisfaction, improvement of patient specific outcomes, personalised treatment, overall quality improvement, more effective patient pathways, reduced pressure on care services and better value for money.

20. In October 2015 the Scottish Government eHealth Division commissioned the West of Scotland NHS Boards (including NHS24 and National Waiting Times Centre) to:

- Define the services that a Citizen Portal would deliver;
- Define a technical architecture that could deliver these services;
- Develop an Initial Agreement for the Citizen Portal; and
- Define an incremental roadmap for developing and enhancing the Citizen Portal.

Although the West of Scotland NHS Boards were commissioned, a project board was formed with wider NHSScotland representation to ensure that the solution specified and eventually delivered is national.

21. The work was undertaken based on the principles for a citizen portal that were agreed when the Government set its objective that by 2020 citizens will be able to use a citizen “portal” to access a personalised view of their health and care information. These principles is at Appendix 1.

22. The commission was completed in August 2016 and the above products were delivered. This products were developed from considerable citizen and clinical input, as well looking at solutions in other jurisdictions. A summary of the citizen portal design approach is at Appendix 2.

23. The current status of the work is that, working with Scottish Government eHealth, the West of Scotland NHS Boards are establishing new project structure to develop the first version of the “citizen portal”. The structure will be based around an interactive and agile development which will include Local Authority input and support from the relevant national Innovation Centres. Although no timeline has been agreed for development an agile approach should ensure that an initial version is available within a relatively short space of time.

Next Steps and Longer-term

24. The agreed longer-term outcomes support the future vision for an EHR which is largely co-produced and which can be viewed and added to by both the multi-disciplinary care team and the patient, allowing a joined-up approach to self-management and professional care. This includes developing means to link the Electronic Patient Record and Personal Health Record, linking to social care records and including more patient reported outcomes and preferences in electronic records.

25. As one of the longer term outcomes that go beyond 2020 are not specifically captured in the eHealth Strategy 2014-2017 or in local delivery plans, the eHealth Division is currently working with the Chief Operating Officer of NHSScotland and

CMO's Directorate to consider the best strategic approach to drive improvements in eHealth and harness developments in data analytics, technology-enabled care, public health intelligence, digital health and innovation across Scotland. There is an opportunity to pull together expertise and know-how, not only across Government, but among the NHS, academic and industrial base of Scotland to create a thriving digital ecosystem in health and social care. This has the benefit of linking more directly with the nationwide Innovation Centre programme.

26. As we look to create a new Digital Health and Care Strategy and Delivery Plan that reaches beyond 2017, the benefits of the following will therefore be considered:

- Strategic and policy alignment of eHealth, innovation, analytics and public health intelligence to create a thoughtful long-term national engagement strategy.
- Strengthening of leadership through specific roles of National Chief Clinical Information Officer (CCIO) and Chief Technology Officer.
- Capacity building with the aim developing a workforce of trained clinician-informaticists.
- Review our approach to standards adoption and interoperability as a core characteristic of the NHSScotland Digital Ecosystem – to promote clinical care, innovation, and research.
- Commission an External Review by international leaders in the field to support Scotland in its ambition.

Appendix 1

The following high-level principles apply to the development of the patient portal:

- A patient view (portal/landing page) for every citizen in Scotland;
- We will do this once for Scotland – clinicians and eHealth Leads Board led;
- Patients/citizens should have the same user experience regardless of their location in Scotland;
- The same basic services will be offered to every citizen and expanded incrementally over time;
- MyAccount will be used for citizen user authentication;
- Will comply with MyGov.scot standards, but delivered by NHSScotland;
- There will be a concept of role-based access – citizen, proxy, carer;
- Citizens will be able to sign up to and access more personalised and disease-specific services/information as this capability develops;
- Information will be standards-based to allow re-use;
- Information will be bi-directional;
- Can be used alongside other tailored visualisation platforms (e.g. dashboards) to facilitate joint management and care plan development;
- Can combine both key professionally and patient generated health and care information and history;
- Can allow access to more detailed clinical and care information upon request;
- Can be combined with up to date relevant research and analytical information.

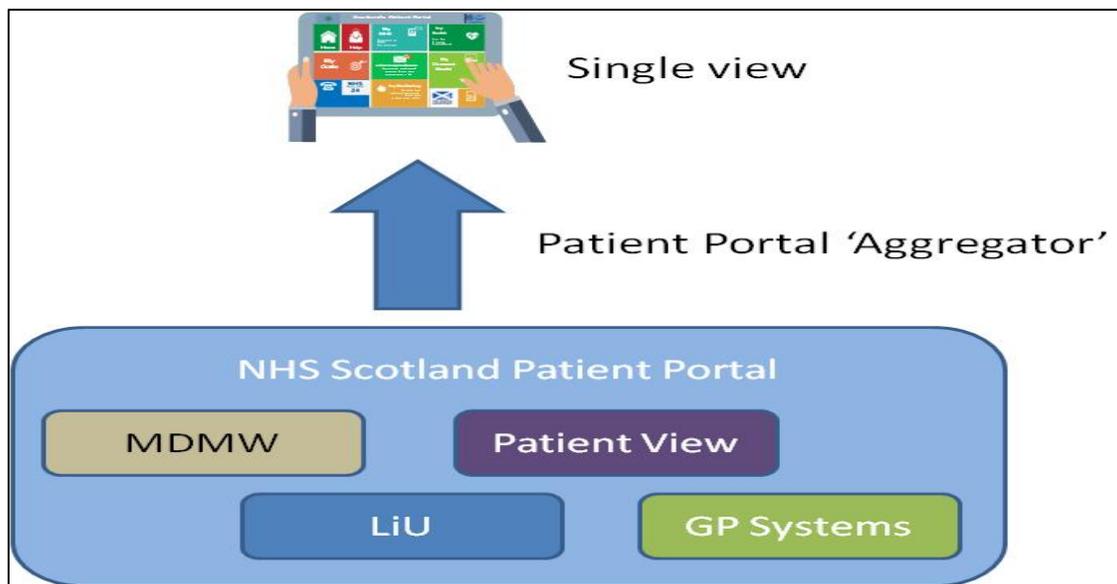
Appendix 2

Patient Portal Design

a. The proposed solution would support all of the services that were outlined in the Citizen Portal Definition Report. In addition, the solution provides additional services, such as mobile device integration and the ability for individuals to set goals and co-create their Health Record, as per the Ministerial commitment for 2020. The end result will be a unified information access and exchange architecture for Scotland to support digital engagement with citizens for health and care.

b. Functionality that will be made available to citizens through the portal will be incremental, and will build upon the services that have been provided earlier. So, for instance, initially individuals will be able to make online GP appointments and order repeat prescriptions. As functionality expands, they will be able to make other appointments online, with both primary care and secondary care, utilising the same functionality, and a consistent 'look and feel'.

c. Key to delivering the national Citizen Portal will be the ability for the solution to be a 'portal aggregator', shown below with some examples of current stand-alone on-line services.



d. In this way, existing portals can continue to deliver their services to their customer base, but will be incorporated within a single Citizen Portal, and over time, will allow for a single 'look and feel' to the portals to be achieved. This approach allows for other LTC areas to investigate and develop specific portals for their condition, knowing they will be incorporated within the Citizen Portal.

e. The modular approach advocated in the design will allow future enhancements to be incorporated as both the technology and business processes are made ready. This incremental approach, also allows for investment in the Citizen Portal to be managed and assessed on a case by case basis. This approach is

based upon health IT standards, such as HL7, and will allow future integration, without the need for bespoke development.

f. It is important to realise that not all citizens will access a Citizen Portal in a single way. Citizens will use a variety of platforms, such as tablets, mobile phones, laptops and PCs. The Citizen Portal is designed in such a way as to accommodate this variety, and by using industry based standards, would allow for the platform to evolve over time.