National eHealth Strategy

2016– 2020

Embætti landlæknis
Directorate of Health

January 2016

National
eHealth
Strategy

2016 – 2020

National e-Health Strategy 2016 – 2020

Written by:

Gudrun Audur Hardardottir, PhD, Project Manager

Ingi Steinar Ingason, BSc, Teamleader

National eHealth Strategies

2016–2020

Foreword
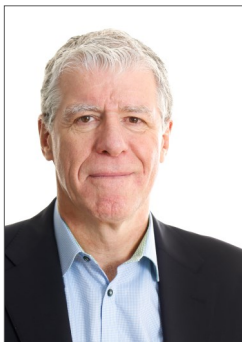
According to the Health Records Act, No. 55/2009, health care professionals in Iceland who treat patients are obliged to enter health records. Furthermore, the patient has the right to the best health services available at any point in time as stated in the Patients´ Rights Act (No.74/1997). Hence, health records must be reliable and available to health professionals who treat the patient, wherever and whenever needed.

Since 1996 it has been the policy of the Icelandic Government to establish integrated and interconnected health information systems and a secure national network where health professionals can seamlessly exchange meaningful health information to support the continuity of health care delivery. The use of eHealth within health care is believed to support increased patient safety, quality of health care and increase efficiency. A key functionality of eHealth is the implementation of connected and integrated electronic health records (EHRs) for sharing of important health information at point of care to support clinical decision making. Integrated and shared health records support co-ordination, collaboration, and continuity of health care delivery as important clinical information about the patient can be securely accessed at any time whenever needed, instead of being isolated at the health care institutions where the health services were delivered.

Interconnected electronic health records can support clinical decision making at point of care due to broader access to essential patient information such as allergy to certain medications, medication history, test results, earlier diagnosis and treatment, and automatic warnings. Moreover, increased efficiency of the health care system can be expected by reducing duplication of diagnostic tests and medication prescription, to name a few examples.

With interconnected electronic health records access to sensitive patient information is made easier to health professionals who treat patients. It is therefore of utmost importance to protect

patient information within health information systems with respect to both privacy and security. Furthermore, it is necessary to monitor individual access to the systems.

In recent years emphasis has been on increased access to health information by consumers and their participation in their own treatment. The Health Records Act (No. 55/2009) supports this; the law addresses the patient´s right to access his/her own health record. Hence, it is important to give consumers a secure electronic access to their own health information.

Electronic health records comprise huge amounts of data which open opportunities for Big Data analytics, e.g. to measure outcomes of health care delivery, for quality control and quality improvement of the health care system. It is fundamental to use this dynamic information source for the good of the patient, consumers, health professionals, administrators and the government to support decision making and to increase efficiency and quality of the health care system for better population health. Analysis of personal health data applies to the Act on the Protection of Privacy as regards the Processing of Personal Data, No. 77/2000.

The Directorate of Health is in charge of all national eHealth projects in Iceland (Regulation No. 550/2015). This involves promoting the use of eHealth applications within health care to enhance patient safety and quality of care and to support better health for the citizens. The present strategy outlines future visions of eHealth implementation toward the year 2020. The main focus is on improving access to information and health services, patient safety, and quality of care with efficient use of financial resources. Four main objectives are presented with ways to obtain them. Furthermore, the Directorate of Health issues yearly a strategic plan with goals, actions, and performance measures.

Reykjavík, 18 January 2016

Birgir Jakobsson, MD, PhD
Director of Health

Main Objective 1: Ensure secure and seamless access for health professionals to patient information whenever and wherever needed

Quality, safety, efficiency and financial effectiveness of health care services should be improved through implementation of shared and integrated eHealth solutions. Health information needs to be available and shared among health professionals anytime, anywhere, whether it is clinical information needed for patient treatment or management data for administration purposes.

Procedure:

a. Electronic Health Record

- Develop and implement electronic health records on a national level in accordance with the needs of consumers, health professionals, administrators and government authorities.
- Interconnected electronic health records shall be implemented on a national level. Hence, the health record will move with each consumer rather than being isolated in stand-alone systems at point of care.
- Assure that electronic health record systems are in congruence with current requirements issued by authorities. This applies to any law, regulations, standards, clinical coding as well as other directives issued by the Directorate of Health.
- Ensure integration of health information systems so that access to critical patient information is easy, safe and fast.
- Explore options to use telehealth systems where applicable to increase consumer access to health care services. If such solutions are used they need to be integrated with the electronic health record.

b. National Pharmaceuticals Database and Medication Management System

- Access to the National Pharmaceuticals Database shall be integrated with the electronic health record in use.
- A Medication Management System for inpatients needs to be implemented nationally, including nursing homes, and integrated with the electronic health record in use.
- A centralized individual medication list and allergy report, including an integrated warning system, shall be implemented on a national level

c. The HealthNet Hekla

- The HealthNet Hekla is the channel to be used for health information exchange in Iceland.
- The electronic health records in use within hospitals, health care centres, private practice, and nursing homes shall be interconnected to support seamless exchange of vital patient information among health care providers.

- All electronic health record systems in use within health care in Iceland need to be able to connect to the HealthNet Hekla for continuous health information exchange.
- Health care providers need to comply with the directive on quality and security of health records, issued by the Directorate of Health, before they can be a part of inter-connected health records.

d. Radiology services

- Mandated standards and guidelines for a diagnostic radiology classification system need to be issued by the Directorate of Health.
- A central electronic information system for digital imaging request and results needs to be established.
- The central digital imaging request and results system shall be fully integrated into the electronic health record.
- Central access to digital images needs to be established.
- The central electronic system for digital imaging, request and results needs to be accessible on a national level.

e. Laboratory services

- Mandated standards and guidelines for a laboratory classification system need to be issued by the Directorate of Health.
- A central electronic system for laboratory request and results needs to be established including haematology, biochemistry, microbiology, cytology, immunology, pathology, serology, and prenatal diagnosis.
- The central electronic laboratory request and results system shall be fully integrated into the electronic health record.
- The central electronic laboratory request and results system needs to be accessible on a national level.

Main Objective 2: Ensure secure and seamless electronic access for consumers to their own health information whenever and wherever needed

There are increased demands within society to accelerate the use of eHealth solutions within health care. Over the past years there has been increased emphasis on patient empowerment and the need for patients to be more informed and involved in their own treatment. The Patient Records Act (No. 55/2009) supports this as the Act states that the patient has the right to access his/her own patient records. Hence, it is important to support a secure and seamless electronic access for individuals to their own health information, preferably from one e-access point, where the individual can access his/her own health information whenever and wherever needed, regardless of which hospital, primary health care centre or private practice delivered the health services. The ultimate goal is effective use of eHealth to support increased patient safety and enhance the quality of health care delivery.

Procedure:

The Patient Portal, Vera

- Vera shall be implemented into the services of all hospitals, primary health care centres and private practice within the country.
- Health consumers shall be able to have secure e-communication with their health professionals.
- In addition to access to their own health information, including access to laboratory results, consumers shall have access to information on who has accessed their health record, where and when.
- Consumers should be able to enter their own information into their personal health record, e.g. various measurements.
- eHealth solutions on various patient health measurements need to be integrated into the patient portal Vera.
- Patient reminders, e.g. of taking medication at a certain time, to support treatment compliance, and a visit reminder need to be incorporated into the patient portal Vera.
- Access to information about waiting lists within health care shall be part of the patient portal Vera. Moreover, exactly where on the waiting list the individual is located each time so that the patient is able to plan accordingly.
- Individual eCards are the requirements for consumers to log on to Vera; due to the sensitivity of health information the highest security levels available are required for entry.

Main Objective 3: Ensure security and quality of health information within electronic health records

Health information is regarded as highly sensitive personal information and hence, it is of utmost importance to ensure information security and safeguard data and information within electronic health record systems. Every health institution needs to make sure that their health personnel is fully aware of and understands the importance of access rules and safeguarding the confidentiality of personal health information kept within various electronic health information systems.

Procedure:

- The security of health data and information within electronic health information systems shall be promoted.
- Access to electronic health records needs to be monitored on a regular basis, both among health professionals and providers hosting the eHealth systems.

- Consumers should be able to monitor themselves who has accessed their health record, where and when.
- The monitoring of the quality of data entered into electronic health records needs to be increased and improved.

Main Objective 4: Enhancement of electronic health record data retrieval and information dissemination is needed

Electronic health records need to support data retrieval for outcome measures, quality monitoring, continuous quality improvement and scientific research. Furthermore, electronic health records need to support data processing for statistical analysis mandated by authorities, for administrational purposes, quality indicators retrieval, waiting lists and access logs, at minimum.

Procedure:

- Electronic health records need to support enhancement of information dissemination to health professionals, administrators, powers-that-be, and health consumers.
- Mandated minimum health care data sets for hospitals, primary health care, and private practice will be transmitted in "real time" over the HealthNet Hekla and into mandated health information databases located at the Directorate of Health.
- Ensure that information about patient outcome measures and waiting time for diagnosis and health service delivery shall be retrievable from electronic health records.
- Reports on access and usage logs of electronic health records need to be easily retrievable.