

VERA, The National Citizen Health Portal

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Organisation: The Directorate of Health

Country: Iceland

Level of government: Central government

Sector: Health, Social protection

Type: Communication, Digital, Public Service

Launched in: 2014

Overall development time: 3 year(s)

Link to the innovation's website

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Description

VERA, the National Citizen Health Portal in Iceland is a centralized web-application where citizens have secure digital access to their health information and eHealth services provided in the country. VERA is integrated into the EHR and provides access to health information and eHealth services for citizens through one access point, whenever and wherever needed, regardless of which hospital, primary healthcare or private practice provided the services. Functions today include the ability to view and request e-Prescriptions, dispensed medication, immunization, allergy, organ donation wishes, secure messaging with health professionals, and enter own measurements (i.e. vital signs, blood sugar levels). Early in 2017 additional functions like hospital admissions, primary care visits, some tailored educational material and a log list of who has accessed the citizen's health record will be available as well as eBooking for health visits with specialists and outpatient hospital services.

The health portal is unique as it is implemented on a national level and integrated into the electronic health record (EHR). The portal provides one-digital access point to citizens to securely access their health information, communicate with health professionals, make eBookings, and enter own measurements into the portal, which they can share with health professionals, no matter which hospital, primary healthcare clinic or private specialty within the country provides the services. To have a citizen health portal integrated into the electronic health record on a national level is totally new and has not been done in other countries, to the innovators' best knowledge. This innovation includes digital tools on a national level, which can empower citizens' participation within healthcare, increase access to healthcare, support improved quality of healthcare delivery for enhanced user satisfaction and healthier populations. It is free of charge to citizens and healthcare institutions.

Why the innovation was developed

- Recently there has been increased emphasis on patient empowerment and the need for patients to be more informed and involved in their own treatment. There are also increased demands within society to accelerate the use of eHealth solutions within healthcare to support healthier populations.
 - Effective use of eHealth is believed to enhance the quality of healthcare services. Access to health care is an issue. Being able to digitally renew medication, communicate through secure messaging with health professionals and book appointments via VERA increases citizens' access to health services.
 - Moreover, secure digital communication between health professionals and citizens supports improved effectiveness and efficiency of healthcare delivery.
 - Citizens' eBooking supports increased efficiency by saving time from waiting in queues on the phone to book appointments. This availability also saves time of the employees working at the healthcare clinic.
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Objectives

Improve access, Improve effectiveness, Improve efficiency, Improve service quality, Improve user satisfaction, Increase citizen engagement

Main beneficiaries

General population

Results

Results not available yet

- The health portal has recently been implemented on a national level and hence, it is too soon to know what results the innovation yields. It is expected that the health portal will improve service quality and user satisfaction, support efficiency and effectiveness of healthcare services. An advertising campaign among citizens is scheduled to be launched in the beginning of September 2016. Some evaluation has been conducted in the form of usage rate of the health portal. Early in 2017 a citizen survey will be conducted on a national level to collect information on usability and satisfaction of the innovation. Simultaneously a survey will be conducted among health professionals to collect information on usability and satisfaction of available eHealth services as recommended by the Nordic eHealth Research group (<http://norden.diva-portal.org/smash/get/diva2:821230/FULLTEXT01.pdf>).

Development

Design

The idea of patient portals is not new and some patient portals have been implemented in other countries. The initial idea to develop and implement a citizen health portal on a national level came from project managers who manage national eHealth projects at the Directorate of Health. They applied for a grant from the government which was accepted. Then they partnered up with the Primary Healthcare of the Capital Area and a private software company to collaborate on the innovation, elaborate and develop it. A steering committee and focus groups were created for the project. All partners of the innovation share a common goal to implement shared and integrated eHealth solutions to support the quality, safety, efficiency and financial effectiveness of health care services, in support of better quality of life for citizens. Design time: 1 year(s)

Testing

- The health portal project was grouped into four phases with outlined objectives.
- . Before pilot testing a snowball selection of 100 individuals were granted access to test a prototype of the health portal with unique e-Identification. These individuals used the portal and sent recommendations to the steering committee. The steering committee worked directly with the software company who is a co-partner in the development and implementation of eHealth solutions.
- The prototype and pilot were tested within one of the healthcare clinics of the Primary Healthcare of the Capital Area.
- When considered ready the first launch of the health portal was implemented within all primary healthcare clinics in the country, one by one.

Testing time: 6 month(s)

Implementation

Tools used:

- The health portal, was developed using the Agile software development method, with extensive testing on unit and integration level and using the latest development tools such as: Microsoft Visual Studio, .NET MVC 5.0, ASP .NET Web Forms, REST API and SOAP Web Services.
- The health portal uses the National Health Network Hekla to communicate with electronic health record (EHR) systems and central databases in a secure way.
- Google Analytics is used to anonymously track usage rate of the application.
- The portal runs on Windows platform using Microsoft SQL-Server and IIS Server 7.
- The management approaches included motivating healthcare staff to use the solution, on-site presentations and presentations at local conferences for health professionals.
- An advertising campaign on a national level is scheduled in September of 2016. The portal has already been advertised at the local level.

Resources used:

- Focus groups and a steering committee included staff from the Directorate of Health, primary healthcare clinics, and the software company collaborating on the project.
- Furthermore, the focus groups worked with healthcare staff at their institution. There were 12 experts from various fields of healthcare in the focus groups.
- The steering committee also included experts within healthcare, leadership, informatics and computer science.
- Everyone had years of experience within their field of expertise.
- The budget included, but was not limited to, a grant from the government.

Implementation time: 1 year(s) 6 month(s)

Diffusion

- The citizens' health portal has already been implemented within primary healthcare. However, planning has already started to extend the services to hospital- and private specialist services.
 - Focus groups are being develop, consisting of healthcare experts within each field of services.
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Challenges and solutions

- Challenges included, but were not limited to, under-staffing of both healthcare professionals and computer scientists, health professionals went on a strike, and there was unexpected resistance against the health portal from physicians, which became evident during the implementation phase.
- The importance of strong leadership, organizational and policy support proved to be a crucial factor for the development and implementation of the health portal.

Partnerships

Multiple partners

Other Public Sector, Private sector

The Directorate of Health, who is responsible for the solution, partnered with the Primary Healthcare of the Capital area and the software company TM Software Health Solutions for the development and implementation of the health portal.

All partners had been working on common eHealth projects before. The Directorate of Health initiated the project and had a leading role in the design, development and implementation of the health portal. The partnership was characterized by mutual trust and respect and everyone worked to achieve the common goals that were shared by the groups and steering committee to make the innovation successful.

Lessons Learned

Lessons Learned

- Collaborating with the right people who were motivated, there was trust and respect, people were dedicated, and involving users at every step of the development was important.
 - Government policy has to support the innovation. Strong leadership, supporting infrastructure, and motivated healthcare workers are key factors. This was reflected in the implementation process. The original plan for implementation was to connect all clinics belonging to the Primary Healthcare of the Capital Area and then other primary healthcare clinics within the country.
 - However there was an unexpected resistance among physicians working at some of the clinics, resulting in months of delay of implementation while leadership was resolving the issues. Due to the delay the health portal has only been advertised at the local level.
 - A national advertising campaign is scheduled in September 2016, while the health portal has not been advertised on a national level yet the user rate is growing every week.
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Conditions for success

- Motivated healthcare professionals, enough funding to further develop the health portal and add new features like tailored education material, test results, and eventually access to the whole electronic health record, supporting infrastructure, strong leadership, user support and guidance, and listening to citizens' needs.
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