

Collecting evidence about eHealth implementation in the Nordic Countries

Koch S^a, Andreassen H^b, Audur Hardardottir G^c, Brattheim B^d, Faxvaag A^d, Gilstad H^d, Hyppönen H^e, Jerlvall L^a, Kangas M^f, Nøhr C^g, Pehrsson T^a, Reponen J^e, Villumsen S^g, Vimarlund V^a

^a Swedish Society for Medical Informatics (SFMI) on behalf of all Swedish Network members

^b Norwegian Centre for Integrated Care and Telemedicine, Tromsø, Norway

^c Directorate of Health, Iceland

^d Norwegian EHR Research Centre, NTNU, Trondheim, Norway

^e Information Department, National Institute for Health and Welfare, Helsinki, Finland

^f Finntelemedicum, University of Oulu, Finland

^g Department of Development and Planning, Aalborg, Denmark

Introduction

The Nordic eHealth Indicator Research Network (NeRN) is aiming at identifying similarities and differences in the Nordic national eHealth policies and surveys with the aim to develop, test and assess a common set of indicators for monitoring eHealth availability, use and impacts in the Nordic countries. Starting in 2012, the NeRN collaboration has resulted in two key reports [1-2]. The aim of this poster is to summarize the results achieved so far and to describe ongoing work.

Materials and Methods

The work has been based on an indicator methodology containing four phases: 1) Defining the context through eHealth policy analysis (key stakeholders and the relevant area or system), 2) Defining the goals with a combination of top-down and bottom-up approaches, 3) Defining methods for indicator selection and categorisation, and 4) Defining the data, reporting results and feedback.

Key systems were informed by taking the OECD –defined key functionalities for Electronic Health Records (EHR), Health Information Ex-change (HIE), Personal Health Records (PHR) and Patient Portals. The availability and use of these functionalities were selected as the first indicators. The national eHealth survey variables in different Nordic countries were compared with OECD definitions to find common availability- and use-measures for these functionalities.

Results

Availability rates for the different key functionalities were relatively high especially when it comes to HIE functionalities related to prescriptions as e.g. the *proportion of ePrescriptions of all prescriptions made* in 2014 exceeded 60% in all the Nordic countries. The availability of Patient Portal functionalities was also high. Its intensity of use was however low, except in Denmark. Many of the Patient Portals were still local, and data on intensity of use by patients were not available at a national lev-

el. Comparable usability benchmarking was only available from Finland and Iceland and in some cases from Sweden.

Currently ongoing work focuses on harmonizing existing indicators, collecting and defining new indicators related to citizen views and developing a common system for data collection and presentation.

Discussion

This work represents the first systematic analysis and comparison between Nordic countries regarding eHealth monitoring. It clearly highlights the challenges such as unclear and ambiguous indicator definitions, lack of monitoring data for a great amount of variables and associated challenges in data comparability.

Acknowledgments

We thank the Nordic Council of Ministers eHealth group for supporting the work of the Nordic eHealth Research Network.

References

- [1] Hyppönen H, Faxvaag A, Gilstad H, Audur Hardardottir G, Jerlvall L, Kangas M, Koch S, Nøhr C, Pehrsson T, Reponen J, Walldius Å, Vimarlund V. Nordic eHealth Indicators: Organisation of research, first results and plan for the future. Tema Nord 2013:522 <http://www.norden.org/en/publications/publikationer/2013-522>
- [2] Hyppönen H, Kangas M, Reponen J, Nøhr C, Villumsen S, Koch S, Audur Hardardottir G, Gilstad H, Jerlvall L, Pehrsson T, Faxvaag A, Andreassen H, Brattheim B, Vimarlund V, Kaipio J. Nordic eHealth Benchmarking. Tema Nord 2015:539 <http://norden.diva-portal.org/smash/get/diva2:821230/FULLTEXT01.pdf>

Address for correspondence

Sabine Koch, Health Informatics Centre, LIME, Karolinska Institutet. e-mail: sabine.koch@ki.se; URL: ki.se/hic