Monitoring eHealth benefits – dream or reality?

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Abstract This workshop, collaboratively organised by AMIA, IMIA, EFMI, and the Nordic Network, aims at discussing eHealth impact measures with the active engagement of the audience. There are four speakers to introduce the topic from the viewpoint of the EFMI and IMIA evaluation working groups (the research viewpoint), and from the viewpoint of indicator development and implementation (the Nordic Network and the ARRA act). The participants will then engage in group work answering specific questions, and the moderator collates the results and presents how they are used to steer international eHealth indicator definition work both conceptually and in practice.

Keywords. Benchmarking, eHealth policies, strategy analysis, quality indicators

Introduction of the topic

Health information systems have become widely used across large regions of countries, and regional and national systems have been established for information exchange between organizations. This compels us to collect and analyze information about use and benefits at a regionally and nationally aggregated level. We can learn from the implementations across contexts and develop evidence-based analysis of the benefits of these health care services [1].

Measuring benefits in any field is difficult. For information and communication technologies (ICTs) there are added complications due to application diversity and rapid transformation. Health care as a context adds further complexity due to diversity of delivery systems [1]. There are few examples for monitoring eHealth benefits at the national level. Much of the work is based on non-generalizable case studies.

Availability and use of the ICTs are pre-requisites for measuring ICT benefits. Interoperability is a prime driver of most ICT benefits [2]. Other determining factors include human capital, the level and availability of ICT infrastructure, and government intervention. These factors form background data from which benefits derive.

The Organisation for Economic Cooperation and Development (OECD) has identified several benefits that are targeted for implementation for health care in the member states: quality and efficiency of care, operating and administrative costs

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reduction, and enhancement of new models of health care delivery. The OECD is currently supporting the member states in monitoring availability and use of the ICTs in a comparable manner. [3] Some national initiatives aim to go a step further: In the US, the Meaningful Use (MU) incentive program stage 1 focused on availability of data capture and sharing functionalities in electronic format. Stage 2 focuses on health information exchange to support clinical processes, with demands for a number of electronic transactions (usage rate). The plan for Stage 3 is to focus on improved outcomes (improving quality, safety, and efficiency) as well as patient empowerment [4], although this goal may shift.

In the Nordic countries, the eHealth Research Network (NeRN) is commissioned by the Nordic Council of Ministers to “to develop, test and access a common set of indicators for monitoring eHealth in the Nordic countries and Greenland, Faroe Islands and Åland” in collaboration with the OECD. The group is in process of defining benefit-indicators. [5]

This AMIA-, EFMI-, and IMIA-supported workshop is intended for health care and medical informatics professionals, researchers, and policy makers interested in monitoring eHealth benefits (MU stage 2-3) and discussing validity of the measures.

1. Aim of the discussion

The main objective is to open the “black box” of eHealth benefits, with research and indicator developer - implementers’ viewpoints regarding what benefits should be monitored, why, and how. The aim is to 1) get support and steering for the concrete work of developing multinational indicators for monitoring eHealth benefits, and 2) contribute to the discussion of the scientific basis for these indicators. The feasibility of monitoring different benefit categories and methods for obtaining the needed data are discussed, and the results of the discussion are collated and reported to steer the work of development of joint eHealth benefit indicators and measures.

2. Contribution from each speaker

The workshop draws from experience of groups who are active in eHealth evaluation and indicator work: The first and second speakers represent the IMIA and EFMI evaluation WG. They will give an overview of the key results of the status and action plans of evaluation and indicator work for the groups, as well as conceptual background for indicator development.

The third and fourth speakers represent developer – implementers: The third speaker represents the US MU incentive program, and tells about the experiences and open questions with benefit indicator definition for the MU stages 2-3. The fourth speaker represents the Nordic Indicator Network, and will share the experiences and open questions with defining the common benefit indicators in the Nordic context.

Each presenter will be given 10 minutes. Group work and a plenary discussion of the results of the work focus on the views of the audience on key benefits variables and the feasibility of monitoring impacts of specific eHealth services. The results will be incorporated in the development of international indicators for monitoring eHealth benefits, and are reported in scientific forums to facilitate discussion on the scientific basis of the pros and cons of eHealth benefit monitoring.
3. Expected results

The workshop continues the series of MIE and MEDINFO workshops [5-7] arranged by the Nordic eHealth indicator research network and the AMIA-organized webinar on Nordic Indicators/ Meaningful Use [8]. The main result is further support and steering for the concrete work of developing multinational indicators for monitoring eHealth benefits (supporting the OECD, MU and European indicator work) and contribution to the discussion of the scientific basis for these indicators.

4. References


