

eHealth Benchmarking Good Practice Case Jahrbuch Gesundheitswirtschaft 2008

Case summary

The study included a survey of around 270 private and mandatory health insurances, around 2,000 hospitals and 5,000 physicians. The study has been disseminated in the annually published "Jahrbuch Gesundheitswirtschaft" (Yearbook of the health sector) and the "4. Gesundheits- und industriepolitischer Kongress: Prozessoptimierung, eHealth & Vernetzung" (4th Congress for process optimisation, eHealth and networking in the health sector). It aims to stimulate the deployment and use of eHealth in Germany. The "eHealth Monitoring" carried out by Wegweiser is the only longitudinal study of this type in Germany. It is special in that it investigates the potential for networking activities and current developments along the entire supply chain and treatment processes.

The study aims to analyse and highlight the market and innovation potential that is to be found in the domains of eHealth, networking and process optimisation. It gives an overview over currently ongoing projects and programs. Furthermore, it illustrates the technologies and standards in use and asks for potential barriers to market penetration, such as a lack of usability or acceptance. In addition, the eHealth Barometer analyses all investment plans in detail.

The design of the study is based on a very encompassing definition of eHealth, which is seen as "the use of the internet and other similar technologies, that serve to enhance the availability, the effectiveness and efficiency of clinical and supporting processes in hospitals, for physicians, patients, pharmacies and health insurances and that serve the patient's health."

Background and Objectives

Objectives

The study intends to illustrate the current state of eHealth, networking, and process optimisation in the German health sector. The potential of a technological and organisational modernisation is highlighted.

Background Information

The study is closely connected to the annual congress "Gesundheits- und industriepolitischer Kongress: Prozessoptimierung, eHealth & Vernetzung" (Congress for process optimisation, eHealth and networking in the health sector) taking place in Berlin and to the publication "Jahrbuch Gesundheitswirtschaft (Yearbook of the Health Sector)" which includes selected findings of the study, articles from the domains of politics, science and business, best practice examples, and supplier profiles. The yearbook is distributed free of charge to over 8,000 decision makers in the health sector (hospital management, hospital IT departments, health insurance management, practitioners, health associations, scientific organisations, representatives of political parties, and opinion leaders)

Jahrbuch Gesundheitswirtschaft 2008: Prozessoptimierung, eHealth und Vernetzung

Executing agency



Wegweiser GmbH Berlin

Year of publication

2008

Year(s) of available data

2005 – 2009 (without 2008)

Geographic coverage

Germany

Further information

www.wegweiser.de

Type of activity

- Measuring eHealth / ICT availability and use
- Measuring attitudes towards eHealth and eHealth use
- Data gathering with the aim of eHealth market sizing
- Evaluation of an eHealth application / Service

Budget

50,000 – 60,000 Euro

Main Actors

Bundesverband der Deutschen Industrie e. V.

Bundesverband Informationswirtschaft, Telekommunikation und neue Medien e. V.

Zentralverband Elektrotechnik- und Elektronikindustrie e. V.

Hartmannbund – Verband der Ärzte Deutschlands e. V.

Verband der Krankenhausdirektoren Deutschlands e. V.

Implementation

Data gathering approach

The study was conducted by a quantitative survey using pre-defined questionnaires. The questionnaires were sent by mail to the executive management of each health institution. Furthermore, the questionnaire was sent by e-mail to the different branches and departments.

Sampling and fieldwork

The survey was conducted using quantitative and qualitative methods and differentiating several target groups (IT Managers and Administration Executives in hospitals, physicians and health insurers)

Qualitative interviews were focused on executives of physician's organisations and individual physicians. The aim of these interviews was to identify areas, where the use of eHealth could contribute substantially to an increase in the quality of health care and to an optimisation of processes and costs.

The quantitative survey was addressed to all hospitals and health insurances and to a representative sample of physicians and pharmacies.

Return rates were the following:

- hospitals: 7%
- insurances: 21%
- physicians: 9%
- pharmacies: 8%
- overall: 9%

Timing

June to September 2007:

- sampling procedure
- development of the survey design and questionnaire by Wegweiser, Fraunhofer, IAO, BDI, BITKOM, ZVEI, Hartmannbund, and VKD

October to November 2007:

- distribution of survey questionnaires
- analysis of survey results

December 2007 to January 2008:

- presentation of the study results at the conference "Process optimisation, eHealth and networking in the German Health Sector" in Berlin 6./7.12.2007
- press conference with professional and business press
- publication of selected results in "Yearbook Health Sector Germany 2008"

Analysis and Reporting

The statistical analysis of quantitative data included uni and bivariate analyses. Scale levels were nominal, ordinal and metric.

Evaluation of implementation aspects

Quality Criteria	Score	Explanation
1. Relevance and transferability		
"The indicators clearly refer to eHealth."	○●●●	
"The indicators cover the respective issues/topics in sufficient depth."	●●●●	
"The indicators allow regular measurement in the same context in the future."	●●●●	
"The indicators can be applied to a different national context."	○●●●	
2. Accessibility of information		
"The publication of the study presents enough methodological information to enable the reader to judge its validity. (i.e. information on sample size, weighting etc.)"	●●●●	
"The research results have been published in English"	○●●●	
3. Validity of measurement		
"The concept of eHealth used by the study is clearly expressed and therefore understandable for a variety of survey respondents."	●●●●	Published in "Yearbook Health Sector"
"The operationalisation of the indicators has been validated before use."	○●●●	Indicators have been discussed with experts in the health sector prior to the fieldwork.
"The likelihood of social desirability bias/context bias is avoided as much as possible"	●●●●	
"In the case of a multinational study: appropriate translation procedures of survey instruments are used."	NA	
"The instrument follows the general rules for questionnaire design:" Question wording: simple, unambiguous, defining unclear terms Question wording: single stimuli Question wording: factual, not hypothetical Question wording: clear time and actor reference Question wording: neutral, not suggestive Question content: respondent has necessary knowledge and information in order to answer the questions	○●●●	

Population validity

Sampling frame quality: In the case of hospitals and health insurances the survey opted for a census. Therefore the sample quality is excellent. In the case of physicians a random sample of practice-based physicians has been drawn with the help of the „Hartmannbund“. Contact information of hospitals and physicians in Germany has been provided by the partner associations (Hartmannbund, Verband der Krankenhausdirektoren). Address information is kept up-to-date by professionally trained staff. Thus a high quality of the survey sample is ensured. In case of the survey of pharmacies in 2007 a random sample has been made in cooperation with the BVDA (Federal Association of German Pharmacies).

Respondent load

The workload for each respondent is quite high. On its ten pages, the questionnaire addresses questions relating to different departments of one institution so that in most cases different respondents have to answer to different parts of the questionnaire. The electronic version, which is made available simultaneously, is supposed to lower the workload (as several respondents can work on the questionnaire independently). Nevertheless, the return rate is quite good.

Conclusions and learning points

From the point of view of the ordering customer / funding organisation

Usefulness of Activity

The study "Monitoring eHealth und Gesundheitswirtschaft" has not been commissioned by a single organisation or company. Rather it is conducted by the Wegweiser GmbH in cooperation with several partner associations. Since the study is pursuing a multi-client approach different partners and sponsors can contribute with questions to the questionnaire design either to highlight subjects or to gain data for market research.

However, partner associations value the simultaneous press and PR activities, as well as the marketing events for the "Yearbook Health Sector". The advantage of this approach is that market research and business development can be combined with research on a more general "eHealth state of the art" at a comparably low cost for all partners. Each partner association is offered a special workshop where research results are presented according to their specific interests.

From the point of view of the implementing organisation

Strengths

A main strength of the study is its high level of representativeness due to the census of hospitals and health insurances. This representativeness ensures that reliable information on the market penetration of different IT solutions in the medical and organisational departments of these institutions is obtained. Since data is collected continuously, the study provides comparable data on the use and evaluation of IT-solutions as well as the projected investment budgets for these tools.

Weaknesses

During surveys conducted over the last years the length of the questionnaire was recognized to be a problem. Many respondents were put off by the length of 10 pages and shied away from answering because of the time needed for completion. In addition, many of the questions address broader topics that go beyond a narrow definition of ICT since usually several respondents with complementary knowledge are needed. Through its high workload and need of various respondents, the study incurs the risk of a low response rate. This risk is addressed by telephone follow-ups and a second wave of sending questionnaires via email to all executive departments of surveyed institutions.

Facilitators

The cooperation with the Association of Hospital Directors and the Hartmannbund substantially contributes to the success of the survey. A cover letter signed by the association executives ensures a high return rate.

The longstanding cooperation with experts from politics, business and industry associations and the health sector contributed to the quality of the questionnaire in terms of phrasing and thematic focus.

Constraints

A main barrier for the successful implementation of the study has been the length as well as the complexity of the questionnaire. The multitude of topics addressed necessitates the involvement of different departments. This means that internal coordination is an additional problem respondents have to deal with. Generally speaking, the time needed for

filling a paper-based questionnaire (sent by email or mail) is a major problem of the survey.

Learning points

In response to the problem of a (too) high workload for respondents, future surveys will be based on shorter questionnaires. The aim is to reduce the breadth of questions and further integrate different complexes with each other. This is to increase response rates and to enhance the overall quality of the study.

The eHealth Benchmarking Study

The "eHealth Benchmarking" study is carried out by empirica on behalf of the European Commission, Information Society and Media Directorate-General. The study aims to collate and analyse existing eHealth monitoring and benchmarking sources in order to identify best practice in data gathering and to develop a framework for an EU-wide eHealth benchmarking activity. The intention is not only to help better understand eHealth progress but also to identify the main gaps, obstacles and barriers in relation to eHealth monitoring / benchmarking to be overcome in the next few years. In doing so, the study covers the Member States of the European Union, Norway, Iceland, Canada and the United States.

The benchmarking sources were identified by means of a combination of different research methods, including a survey among the experts of the EEA Working Group on Information Society statistics, desk research on sources of eHealth data and measurements on a supranational and European level, and research on the national level carried out by a network of national correspondents.

More information on the study is available online at <http://www.ehealth-benchmarking.eu/> or from the project coordinator:



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Authorship

This case was written by the case owner institution.

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