

Exploration of Patients' Readiness for an eHealth Management Program for Chronic Heart Failure: A Preliminary Study.

[Nahm ES](#), [Blum K](#), [Scharf B](#), [Friedmann E](#), [Thomas S](#), [Jones D](#), [Gottlieb SS](#).

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Heart failure (HF) is a major public health problem in the United States. Approximately 5 million Americans are living with HF, and each year, 550,000 more are newly diagnosed. With recent, rapidly advancing technologies, many studies have examined the effects of technology-based HF management programs. Most of these studies focused on telemonitoring devices, lacking an aspect to motivate individuals to manage their own illnesses. This exploratory study was conducted to (1) examine the readiness of patients with HF in using an eHealth program that includes both telemonitoring and motivational components (ie, Web learning modules, eCommunication) and (2) assess the specific needs of patients with HF that can be addressed by a future eHealth program. This was a single group descriptive study using a convenience sample. A total of 44 patients with HF (mean age, 72.8 years; range, 55-85 years) were recruited from the pool of enrollees of the Medicare Coordinated Care Demonstration project for HF management that used only a telemonitoring component. Although only 10 participants were users, among 34 nonusers, 17 reported availability of Web access, and 15 reported that they would use the Internet if access and training were available. Overall, confidence for using telemonitoring devices and Web-based health modules was high, with means of 27 (range, 3-30) and 7.6 (range, 1-10), respectively. Confidence for learning health information using Web modules, however, was lower with a mean of 41.5 (range, 8-80). The 2 most highly rated health information needs were research findings (n = 41, 93.2%) and medication (n = 39, 88.6%). Most participants would like to have e-mail communication with healthcare providers. The findings showed the participants' high readiness to use the proposed eHealth program if access and training were provided. This study used a small convenience sample. Further studies are needed with larger, diverse samples.



1: [J Cardiovasc Nurs](#). 2008 Sep 29. [Epub ahead of print]
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Making interprofessional education work: the strategic roles of the academy.

[Ho K](#), [Jarvis-Selinger S](#), [Borduas F](#), [Frank B](#), [Hall P](#), [Handfield-Jones R](#), [Hardwick DF](#), [Lockyer J](#), [Sinclair D](#), [Lauscher HN](#), [Ferdinands L](#), [MacLeod A](#), [Robitaille MA](#), [Rouleau M](#).

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Faculties (i.e., schools) of medicine along with their sister health discipline faculties can be important organizational vehicles to promote, cultivate, and direct interprofessional education (IPE). The authors present information they gathered in 2007 about five Canadian IPE programs to identify key factors facilitating transformational change within institutional settings toward successful IPE, including (1) how successful programs start, (2) the ways successful programs influence academia to bias toward change, and (3) the ways academia supports and perpetuates the success of programs. Initially, they examine evidence regarding key factors that facilitate IPE implementation, which include (1) common vision, values, and goal sharing, (2) opportunities for collaborative work in practice and learning, (3) professional development of faculty members, (4) individuals who are champions of IPE in practice and in organizational leadership, and (5) attention to sustainability. Subsequently, they review literature-based insights regarding barriers and challenges in IPE that must be addressed for success, including barriers and challenges (1) between professional practices, (2) between academia and the professions, and (3) between individuals and faculty members; they also discuss the social context of the participants and institutions. The authors conclude by recommending what is needed for institutions to entrench IPE into core education at three levels: micro (what individuals in the faculty can do); meso (what a faculty can promote); and macro (how academic institutions can exert its influence in the health education and practice system¹:

[Acad Med](#). 2008 Oct;83(10):934-40).

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Yes, virginia, there are system benefits to be gained from providing patients access to their own health information.

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In the 1960s, Pierre Trudeau popularized the phrase "The Just Society" when he took over as the federal minister of justice. Four decades later, we have evolved into "The Informed Society," where consumers from all types of businesses and industries are playing larger roles in both the purchase and the development of products and services. One has to look no farther than the World Wide Web and the fascinating growth of sites such as YouTube (www.youtube.com) and Facebook (www.facebook.com) for evidence. In healthcare, however, such "grass roots" contributions have been slower to come to the fore, although recently initiatives like Google Health, Microsoft HealthVault and PatientsLikeMe are emerging as alternatives to the status quo. One reason for this latency in healthcare is a lack of familiarity with the system that uses language and jargon that is not accessible to the average consumer. Further, there is a lack of appreciation on behalf of consumers regarding the benefits resulting from the role that empowered patients can play. In addition, there are no "information access" points whereby communication between patients and the system can be affected. Ultimately, patients lack the encouragement, education and means surrounding their potential contribution.

1: [Healthc Q.](#) 2008;11(4):64-8.


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Web-based smoking-cessation programs: results of a randomized trial.

[Strecher VJ](#), [McClure JB](#), [Alexander GL](#), [Chakraborty B](#), [Nair VN](#), [Konkel JM](#), [Greene SM](#), [Collins LM](#), [Carlier CC](#), [Wiese CJ](#), [Little RJ](#), [Pomerleau CS](#), [Pomerleau OF](#).

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BACKGROUND: Initial trials of web-based smoking-cessation programs have generally been promising. The active components of these programs, however, are not well understood. This study aimed to (1) identify active psychosocial and communication components of a web-based smoking-cessation intervention and (2) examine the impact of increasing the tailoring depth on smoking cessation. **DESIGN:** Randomized fractional factorial design. **SETTING:** Two HMOs: Group Health in Washington State and Henry Ford Health System in Michigan. **PARTICIPANTS:** 1866 smokers. **INTERVENTION:** A web-based smoking-cessation program plus nicotine patch. Five components of the intervention were randomized using a fractional factorial design: high- versus low-depth tailored success story, outcome expectation, and efficacy expectation messages; high- versus low-personalized source; and multiple versus single exposure to the intervention components. **MEASUREMENTS:** Primary outcome was 7 day point-prevalence abstinence at the 6-month follow-up. **FINDINGS:** Abstinence was most influenced by high-depth tailored success stories and a high-personalized message source. The cumulative assignment of the three tailoring depth factors also resulted in increasing the rates of 6-month cessation, demonstrating an effect of tailoring depth. **CONCLUSIONS:** The study identified relevant components of smoking-cessation interventions that should be generalizable to other cessation interventions. The study also demonstrated the importance of higher-depth tailoring in smoking-cessation programs. Finally, the use of a novel fractional factorial design allowed efficient examination of the study aims. The rapidly changing interfaces, software, and capabilities of eHealth are likely to require such dynamic experimental approaches to intervention discovery.

[Am J Prev Med](#). 2008 May;34(5):373-81.  FULL-TEXT ARTICLE

PMID: 18407003 [PubMed - indexed for MEDLINE]

eHealth interoperability.

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For improving quality and safety of patient's care, for keeping the costs of health services, but also for successfully managing public health communication and cooperation between all stakeholders is inevitable. Such interoperability can be provided at different levels from simple data exchange up to business interoperability. The paper introduces those interoperability levels and international standards specifying and facilitating them. In that context, the expression of business requirements by domain analysis models or story boards as well as by functional models of the core applications enabling interoperability like EHR systems have been tackled. The role of decision support systems and infrastructural services has been considered as well.

[Stud Health Technol Inform.](#) 2008;134:245-53. 

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Establishing and harmonizing ontologies in an interdisciplinary health care clinical research environment.

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Ontologies are being ever more commonly used in biomedical informatics. The paper provides a survey of some of these uses, and of the relations between ontologies and other terminology resources. In order for ontologies to become truly useful, two objectives must be met. First, ways must be found for the transparent evaluation of ontologies. Second, existing ontologies need to be harmonized. The authors argue that one key foundation for both ontology evaluation and harmonization is the adoption of a realist paradigm in ontology development. For science-based ontologies of the sort which concern us in the eHealth arena, it is reality that provides the common benchmark against which ontologies can be evaluated and aligned within larger frameworks. Given the current multitude of ontologies in the biomedical domain the need for harmonization is becoming ever more urgent. An example of such harmonization within the ACGT project is described, which draws on ontology-based computing as a basis for sharing clinical and laboratory data on cancer research.

[Stud Health Technol Inform.](#) 2008;134:219-33. 

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eHealth: Connecting Health Care and Public Health.

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Reducing risks and improving benefits to the patients are requirements health professionals are faced with in their daily work. Furthermore, cuts in health funds and the competition for budgets require to enhancing efficacy and efficiency of health services. For meeting both challenges, adequate information and knowledge is needed, which can be gathered from documentation systems such as Electronic Health Records or Personal Health Records (PHRs), but also by performing dedicated clinical studies such as randomized controlled trials (RCTs) or cohort studies. Based on a literature analysis, quality of, and benefits from, RCTs have been analyzed. The benefits from connecting public health and PHRs are discussed in some details.

[Stud Health Technol Inform.](#) 2008;134:169-76. 

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eHealth in Europe: from Vision to Reality.

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It is now 20 years that the European Union supports research and development of information and communication technologies based tools for healthcare (eHealth). From 1989 till today, funding has continually been increased, initiating new research, complementing Member State initiatives, strengthening European industrial competitiveness, and tackling new health and social problems related to the free movement of people in the EU. By now, many of the earlier visions and dreams have been realised or are close to wider implementation. Accordingly, the European Commission is now providing strong support also for market validation and implementation of eHealth solutions and services, and at the health policy level. Examples are the recent eHealth Action Plan, annual High Level Ministerial Conferences, an upcoming Recommendation on European eHealth Interoperability, or the Member States-led Large Scale Pilot on a pan-European core patient summary and ePrescribing. This will be complemented by a Lead Market Initiative identifying eHealth as a core future innovation field. Growing cooperation with counterparts in the USA and elsewhere underline that eHealth is becoming a global reality. A more than 40 year old vision is now closer to global reality for the better of all citizens.


[Stud Health Technol Inform.](#) 2008;134:163-8

PMID: 18376043 [PubMed - indexed for MEDLINE]

Translational research in medical informatics or from theory to practice. A call for an applied informatics journal.

[Lehmann CU](#), [Altuwaijri MM](#), [Li YC](#), [Ball MJ](#), [Haux R](#).

OBJECTIVE: To bridge the divide between health informatics 'bench research' and the application of informatics in clinical and health care settings. **METHOD:** Identifying weak points in translational activities, i.e. in the process from health informatics research outcomes to IT system design and information management in clinical practice. **RESULTS AND CONCLUSIONS:** The creation of a new peer-reviewed journal, designed to cultivate broad readership across health care, is suggested in order to communicate on informatics topics of translational interest and on the application of informatics principals. Such an applied informatics journal may appeal to practicing physicians, healthcare administrators and CIOs as well as medical informaticians. In a globalizing world with eHealth initiatives spanning across borders, such a journal should be an international effort. Close ties to the International Medical Informatics Association (IMIA) and to the journal *Methods of Information in Medicine* are suggested.

[Methods Inf Med](#). 2008;47(1):1-3.  FULL TEXT ARTICLE (PDF)


PMID: 18213421 [PubMed - indexed for MEDLINE]

Effects of using online narrative and didactic information on healthcare participation for breast cancer patients.

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OBJECTIVES: To determine the effects of online narrative and didactic information on breast cancer patients' healthcare participation and the interaction effects of race. **METHODS:** Sample: 353 breast cancer patients (111 African Americans) using an eHealth program with narratives (audiovisual and text) and didactic information (text only). Measures: healthcare participation scale (0, 4 months), online information use. Analyses: hierarchical regression. **RESULTS:** Narrative ($\beta=0.123$, $p<0.01$) and didactic ($\beta=0.104$, $p<0.05$) information use had independent and positive effects on healthcare participation. Effects of both were significantly greater for African Americans. **CONCLUSIONS:** Findings are consistent with and advance prior research on online learning processes and outcomes for breast cancer patients: (1) benefits accrue with using a variety of online learning tools; (2) African Americans use and benefit more from online narrative and didactic information than do Caucasians. **PRACTICE IMPLICATIONS:** eHealth programs should provide both didactic and narrative information-especially for African Americans and might consider making greater use of interactive and audiovisual formats. As patients increasingly use of the web for cancer information, clinicians should provide lists of web high quality resources that provide both narrative and didactic information.

[Patient Educ Couns](#). 2008 Mar;70(3):348-56. Epub 2008 Jan 16.  FULL-TEXT ARTICLE

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Regulations and standards for wireless applications in eHealth.

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Many of the implementations of eHealth require some form of telecommunications facility. Although wired networks can be applicable, there are many areas in which a wireless communications facility is required. The particular method of wireless communication is dependent upon the application: for example, wireless programming of an implantable device such as a pacemaker has vastly different requirements to those of a wireless alarm for a blood oxymeter. However, wireless devices have to exist in an electromagnetically shared environment, and it is therefore necessary for the standards and regulations applying to such devices to be so designed as to optimise both the efficient use of the radio spectrum, and the usefulness of the wireless link in the context of eHealth. Such wireless devices currently include the use of such general wireless technologies as Bluetooth, cellular telephony, and RFID, as well as those using radio spectrum shared on a secondary basis intended for communication with medical devices. This paper briefly reviews the current situation regarding such standards, including the potential reliability and the degree of subjectivity to interference, and looks to the probable areas of future development in radio standards that will be required to meet the increasing demands of the technologies inherent in the growth of eHealth.



[Conf Proc IEEE Eng Med Biol Soc.](#) 2007;2007:6171-4.

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Health information exchange policy and evaluation.

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Concerns about the quality, safety, and cost of healthcare have driven the nation to increase its focus on this issue. A number of states are moving forward-in parallel with federal efforts-to develop and adopt policies for improving health and healthcare through health information technology and electronic health information exchange. Based on the eHealth Initiative's experience providing technical assistance to more than 20 states, and its work related to its coalition of more than 250 state, regional and community-based health information exchange initiatives and organizations, the most difficult challenges facing these initiatives and organizations today is that related to assessing the value of services that emerge from the health information exchange to various stakeholders groups such as providers, payers, and employers, and converting those value assessments to business plans that promote and assure sustainability for these initiatives. The combination of increased federal and state focus and funding and the pace at which regional and community-based health information networks are developing, along with the identification of value and sustainability as some of the most difficult challenges experienced by these efforts, all point to the significant need for evaluation. The most critical evaluation questions focus on the impact of health information technology and health information exchange on quality, safety, efficiency, the value of such efforts for various stakeholders, and assessment of how grant programs can be designed to support positive impact, value, and a sustainable business model, so that efforts continue when the grant funds are fully expended.

[J Biomed Inform.](#) 2007 Dec;40(6 Suppl):S11-6. Epub 2007 Sep 2.

PMID: 17981099 [PubMed - indexed for MEDLINE]

Effect of emailed messages on return use of a nutrition education website and subsequent changes in dietary behavior.

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BACKGROUND: At-risk populations can be reached with Web-based disease prevention and behavior change programs. However, such eHealth applications on the Internet need to generate return usage to be effective. Limited evidence is available on how continued usage can be encouraged. **OBJECTIVE:** This analysis tested whether routine email notification about a nutrition education website promoted more use of the website. **METHODS:** Adults from six rural counties in Colorado and New Mexico, United States (n = 755) participating in a randomized trial and assigned to the intervention group (n = 380) received, over a period of 4 months, email messages alerting them to updates on the website, along with hyperlinks to new content. Update alerts were sent approximately every 5 weeks (each participant received up to 4 messages). Log-ons to the website were the primary outcome for this analysis. **RESULTS:** A total of 23.5% (86/366) of the participants responded to at least one email, and 51.2% (44/86) of these participants responded to half of the email messages by logging on to the website. Significantly more log-ons occurred on email notification days compared to all other days (OR = 3.71, 95% CI = 2.72-5.06). More log-ons also occurred just after the notification but declined each day thereafter (OR = 0.97, 95% CI = 0.96-0.98 one day further from mass email). Non-Hispanics (OR = 0.46, 95% CI = 0.26-0.84), older participants (OR = 1.04, 95% CI = 1.04-1.06), and those using the Internet most recently (OR = 0.62, 95% CI = 0.51-0.77) were more likely to log on. Responders to the messages had a more positive change in fruit and vegetable intake (mean change = +1.69) than nonresponders (+0.05), as measured with a food frequency assessment (adjusted Spearman partial correlation coefficient = 0.14, P = .049). Compared to nonresponders, responders were more likely to be non-Hispanic (P = .01), older (P < .001), and had used the Internet more recently (P < .001). **CONCLUSIONS:** Messages sent by email appeared to promote a modest short-lived increase in use of a disease prevention website by some adults. Those who responded to the messages by logging on to the website may have been influenced to improve their diet.

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[J Med Internet Res](#). 2007 Sep 30;9(3):e27.

PMID: 17942389 [PubMed - indexed for MEDLINE]

Towards health for all: WHO and IMIA intensify collaboration. Joint Communiqué during Medinfo 2007 in Brisbane.

[Geissbuhler A](#), [Haux R](#), [Kwankam SY](#).

OBJECTIVE: To intensify the collaboration between WHO, the World Health Organization, and IMIA, the International Medical Informatics Association. METHODS: Identifying key areas of collaboration and publishing a joint communiqué during Medinfo 2007 in Brisbane, Australia. RESULTS AND CONCLUSIONS: WHO and IMIA have identified three key areas of joint work for the next three years: the Global Observatory for eHealth, the use of ICT for the development of the health and health care workforce, and sharing eHealth products and services related to intellectual property for development.

[Methods Inf Med](#). 2007;46(5):503-5.



PMID: 17938770 [PubMed - indexed for MEDLINE]

A review of eHealth interventions for physical activity and dietary behavior change.

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OBJECTIVE: To review eHealth intervention studies for adults and children that targeted behavior change for physical activity, healthy eating, or both behaviors. DATA SOURCES: Systematic literature searches were performed using five databases: MEDLINE, PsychInfo, CINAHL, ERIC, and the Cochrane Library to retrieve articles. STUDY INCLUSION AND EXCLUSION CRITERIA: Articles published in scientific journals were included if they evaluated an intervention for physical activity and/or dietary behaviors, or focused on weight loss, used randomized or quasi-experimental designs, measured outcomes at baseline and a follow-up period, and included an intervention where participants interacted with some type of electronic technology either as the main intervention or an adjunct component. All studies were published between 2000 and 2005.

RESULTS: Eighty-six publications were initially identified, of which 49 met the inclusion criteria (13 physical activity publications, 16 dietary behaviors publications, and 20 weight loss or both physical activity and diet publications), and represented 47 different studies. Studies were described on multiple dimensions, including sample characteristics, design, intervention, measures, and results. eHealth interventions were superior to comparison groups for 21 of 41 (51%) studies (3 physical activity, 7 diet, 11 weight loss/physical activity and diet). Twenty-four studies had indeterminate results, and in four studies the comparison conditions outperformed eHealth interventions. CONCLUSIONS: Published studies of eHealth interventions for physical activity and dietary behavior change are in their infancy. Results indicated mixed findings related to the effectiveness of eHealth interventions. Interventions that feature interactive technologies need to be refined and more rigorously evaluated to fully determine their potential as tools to facilitate health behavior change.

[Am J Prev Med](#). 2007 Oct;33(4):336-345.



PMID: 17888860 [PubMed - indexed for MEDLINE] PMCID: PMC2180189 [Available on 10/01/08]

Public trust and privacy in shared electronic health records.

[Rynning E.](#)

The development of information and communication technology in health care, also called eHealth, is expected to improve patient safety and facilitate more efficient use of limited resources. The introduction of electronic health records (EHRs) can make possible immediate, even automatic transfer of patient data, for health care as well as other purposes, across any kind of institutional, regional or national border. Data can thus be shared and used more effectively for quality assurance, disease surveillance, public health monitoring and research. eHealth may also facilitate patient access to health information and medical treatment, and is seen as an effective tool for patient empowerment. At the same time, eHealth solutions may jeopardize both patient safety and patients' rights, unless carefully designed and used with discretion. The success of EHR systems will depend on public trust in their compatibility with fundamental rights, such as privacy and confidentiality. Shared European EHR systems require interoperability not only with regard to technological and semantic standards, but also concerning legal, social and cultural aspects. Since the area of privacy and medical confidentiality is far from harmonized across Europe, we are faced with a diversity that will make fully shared EHR systems a considerable challenge.

[Eur J Health Law.](#) 2007 Jul;14(2):105-12.


PMID: 17847827 [PubMed - indexed for MEDLINE]

Internet methods for delivering behavioral and health-related interventions (eHealth).

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Emerging communications technologies allow us to potentially reach more individuals with effective health-related advice and information at a very low cost. As we begin a new era of "personalized medicine," advances in consumer health informatics will parallel and eventually merge with those being made in bioinformatics (e.g., genomic information), medical informatics (e.g., electronic medical records), and public health informatics (e.g., disease surveillance). This article discusses access, use, quality, and types of eHealth programming with a focus on the Internet as the initial instantiation of this programming. Also discussed are criteria relevant to the dissemination of eHealth programming in real-world settings. Finally, possible directions for future eHealth research are presented.

[Annu Rev Clin Psychol.](#) 2007;3:53-76. 

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Towards new scopes: sensor-enhanced regional health information systems - part 1: architectural challenges.

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OBJECTIVES: To analyze utilization of sensor technology in telemonitoring and home care and to discuss concepts and challenges of sensor-enhanced regional health information systems (rHIS). **METHODS:** The study is based upon experience in sensor-based telemedicine and rHIS projects, and on an analysis of HIS-related journal publications from 2003 to 2005 conducted in the context of publishing the IMIA Yearbook of Medical Informatics. **RESULTS:** Health-related parameters that are subject to sensor-based measurement in home care and telemonitoring are identified. Publications related to telemonitoring, home care and smart houses are analyzed concerning scope and utilization of sensor technology. Current approaches for integrating sensor technology in rHIS based on a corresponding eHealth infrastructure are identified. Based on a coarse architecture of home care and telemonitoring systems ten challenges for sensor-enhanced rHIS are identified and discussed: integration of home and health telematic platforms towards a sensor-enhanced telematic platform, transmission rate guarantees, ad hoc connectivity, cascading data analysis, remote configuration, message and alert logistic, sophisticated user interfaces, unobtrusiveness, data safety and security, and electronic health record integration. **CONCLUSIONS:** Utilization of sensor technology in health care is an active field of research. Currently few research projects and standardization initiatives focus on general architectural considerations towards suitable telematic platforms for establishing sensor-enhanced rHIS. Further research finalized by corresponding standardization is needed. Part 2 of this paper will present experiences with a research prototype for a sensor-enhanced rHIS telematic platform.

[Methods Inf Med.](#) 2007;46(4):476-83.



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Exploration of Patients' Readiness for an eHealth Management Program for Chronic Heart Failure: A Preliminary Study.

[Nahm ES](#), [Blum K](#), [Scharf B](#), [Friedmann E](#), [Thomas S](#), [Jones D](#), [Gottlieb SS](#).

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Heart failure (HF) is a major public health problem in the United States. Approximately 5 million Americans are living with HF, and each year, 550,000 more are newly diagnosed. With recent, rapidly advancing technologies, many studies have examined the effects of technology-based HF management programs. Most of these studies focused on telemonitoring devices, lacking an aspect to motivate individuals to manage their own illnesses. This exploratory study was conducted to (1) examine the readiness of patients with HF in using an eHealth program that includes both telemonitoring and motivational components (ie, Web learning modules, eCommunication) and (2) assess the specific needs of patients with HF that can be addressed by a future eHealth program. This was a single group descriptive study using a convenience sample. A total of 44 patients with HF (mean age, 72.8 years; range, 55-85 years) were recruited from the pool of enrollees of the Medicare Coordinated Care Demonstration project for HF management that used only a telemonitoring component. Although only 10 participants were users, among 34 nonusers, 17 reported availability of Web access, and 15 reported that they would use the Internet if access and training were available. Overall, confidence for using telemonitoring devices and Web-based health modules was high, with means of 27 (range, 3-30) and 7.6 (range, 1-10), respectively. Confidence for learning health information using Web modules, however, was lower with a mean of 41.5 (range, 8-80). The 2 most highly rated health information needs were research findings (n = 41, 93.2%) and medication (n = 39, 88.6%). Most participants would like to have e-mail communication with healthcare providers. The findings showed the participants' high readiness to use the proposed eHealth program if access and training were provided. This study used a small convenience sample. Further studies are needed with larger, diverse samples.

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Yes, virginia, there are system benefits to be gained from providing patients access to their own health information.

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In the 1960s, Pierre Trudeau popularized the phrase "The Just Society" when he took over as the federal minister of justice. Four decades later, we have evolved into "The Informed Society," where consumers from all types of businesses and industries are playing larger roles in both the purchase and the development of products and services. One has to look no farther than the World Wide Web and the fascinating growth of sites such as YouTube (www.youtube.com) and Facebook (www.facebook.com) for evidence. In healthcare, however, such "grass roots" contributions have been slower to come to the fore, although recently initiatives

like Google Health, Microsoft HealthVault and PatientsLikeMe are emerging as alternatives to the status quo. One reason for this latency in healthcare is a lack of familiarity with the system that uses language and jargon that is not accessible to the average consumer. Further, there is a lack of appreciation on behalf of consumers regarding the benefits resulting from the role that empowered patients can play. In addition, there are no "information access" points whereby communication between patients and the system can be affected. Ultimately, patients lack the encouragement, education and means surrounding their potential contribution.

1: [Healthc Q.](#) 2008;11(4):64-8.


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[Norman GJ](#), [Zabinski MF](#), [Adams MA](#), [Rosenberg DE](#), [Yaroach AL](#), [Atienza AA](#).

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OBJECTIVE: To review eHealth intervention studies for adults and children that targeted behavior change for physical activity, healthy eating, or both behaviors. **DATA SOURCES:** Systematic literature searches were performed using five databases: MEDLINE, PsychInfo, CINAHL, ERIC, and the Cochrane Library to retrieve articles. **STUDY INCLUSION AND EXCLUSION CRITERIA:** Articles published in scientific journals were included if they evaluated an intervention for physical activity and/or dietary behaviors, or focused on weight loss, used randomized or quasi-experimental designs, measured outcomes at baseline and a follow-up period, and included an intervention where participants interacted with some type of electronic technology either as the main intervention or an adjunct component. All studies were published between 2000 and 2005. **RESULTS:** Eighty-six publications were initially identified, of which 49 met the inclusion criteria (13 physical activity publications, 16 dietary behaviors publications, and 20 weight loss or both physical activity and diet publications), and represented 47 different studies. Studies were described on multiple dimensions, including sample characteristics, design, intervention, measures, and results. eHealth interventions were superior to comparison groups for 21 of 41 (51%) studies (3 physical activity, 7 diet, 11 weight loss/physical activity and diet). Twenty-four studies had indeterminate results, and in four studies the comparison conditions outperformed eHealth interventions. **CONCLUSIONS:** Published studies of eHealth interventions for physical activity and dietary behavior change are in their infancy. Results indicated mixed findings related to the effectiveness of eHealth interventions. Interventions that feature interactive technologies need to be refined and more rigorously evaluated to fully determine their potential as tools to facilitate health behavior change.

[Am J Prev Med.](#) 2007 Oct;33(4):336-345. 

Internet methods for delivering behavioral and health-related interventions (eHealth).

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Emerging communications technologies allow us to potentially reach more individuals with effective health-related advice and information at a very low cost. As we begin a new era of "personalized medicine," advances in consumer health informatics will parallel and eventually merge with those being made in bioinformatics (e.g., genomic information), medical informatics (e.g., electronic medical records), and public

health informatics (e.g., disease surveillance). This article discusses access, use, quality, and types of eHealth programming with a focus on the Internet as the initial instantiation of this programming. Also discussed are criteria relevant to the dissemination of eHealth programming in real-world settings. Finally, possible directions for future eHealth research are presented.


[Annu Rev Clin Psychol.](#) 2007;3:53-76. 

Towards new scopes: sensor-enhanced regional health information systems - part 1: architectural challenges.

[Bott OJ](#), [Marschollek M](#), [Wolf KH](#), [Haux R](#).


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OBJECTIVES: To analyze utilization of sensor technology in telemonitoring and home care and to discuss concepts and challenges of sensor-enhanced regional health information systems (rHIS). **METHODS:** The study is based upon experience in sensor-based telemedicine and rHIS projects, and on an analysis of HIS-related journal publications from 2003 to 2005 conducted in the context of publishing the IMIA Yearbook of Medical Informatics. **RESULTS:** Health-related parameters that are subject to sensor-based measurement in home care and telemonitoring are identified. Publications related to telemonitoring, home care and smart houses are analyzed concerning scope and utilization of sensor technology. Current approaches for integrating sensor technology in rHIS based on a corresponding eHealth infrastructure are identified. Based on a coarse architecture of home care and telemonitoring systems ten challenges for sensor-enhanced rHIS are identified and discussed: integration of home and health telematic platforms towards a sensor-enhanced telematic platform, transmission rate guarantees, ad hoc connectivity, cascading data analysis, remote configuration, message and alert logistic, sophisticated user interfaces, unobtrusiveness, data safety and security, and electronic health record integration. **CONCLUSIONS:** Utilization of sensor technology in health care is an active field of research. Currently few research projects and standardization initiatives focus on general architectural considerations towards suitable telematic platforms for establishing sensor-enhanced rHIS. Further research finalized by corresponding standardization is needed. Part 2 of this paper will present experiences with a research prototype for a sensor-enhanced rHIS telematic platform.

[Methods Inf Med.](#) 2007;46(4):476-83. 

PMID: 17694244 [PubMed - indexed for MEDLINE]


Title: Exploration of Patients' Readiness for an eHealth Management Program for Chronic Heart Failure: A Preliminary Study. **Author:** [Nahm ES](#), [Blum K](#), [Scharf B](#), [Friedmann E](#), [Thomas S](#), [Jones D](#), [Gottlieb SS](#)
Source: J Cardiovasc Nurs, (): 0 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$38.00

Abstract: Heart failure (HF) is a major public health problem in the United States. Approximately 5 million Americans are living with HF, and each year, 550,000 more are newly diagnosed. With recent, rapidly advancing technologies, many studies have examined the effects of technology-based HF management programs. Most of these studies focused on telemonitoring devices, lacking an aspect to motivate individuals to manage their own illnesses. This exploratory study was conducted to (1) examine the readiness of patients with HF in using an eHealth program that includes both telemonitoring and motivational components (ie, Web learning modules, eCommunication) and (2) assess the specific needs of patients with HF that can be addressed by a future eHealth program. This was a single group descriptive study using a convenience sample. A total of 44 patients with HF (mean age, 72.8 years; range, 55-85 years) were recruited from the pool of enrollees of the Medicare Coordinated Care Demonstration project for HF management that used only a telemonitoring component. Although only 10 participants were users, among 34 nonusers, 17 reported availability of Web access, and 15 reported that they would use the Internet if access and training were available. Overall, confidence for using telemonitoring devices and Web-based health modules was high, with means of 27 (range, 3-30) and 7.6 (range, 1-10), respectively. Confidence for learning health information using Web modules, however, was lower with a mean of 41.5 (range, 8-80). The 2 most highly rated health information needs were research findings (n = 41, 93.2%) and medication (n = 39, 88.6%). Most participants would like to have e-mail communication with healthcare providers. The findings showed the participants' high readiness to use the proposed eHealth program if access and training were provided. This study used a small convenience sample. Further studies are needed with larger, diverse samples. **Language:** ENG

Source: J Cardiovasc Nurs, ID:18827709

Making interprofessional education work: the strategic roles of the academy. **Author:** [Ho K](#), [Jarvis-Selinger S](#), [Borduas F](#), [Frank B](#), [Hall P](#), [Handfield-Jones R](#), [Hardwick DF](#), [Lockyer J](#), [Sinclair D](#), [Lauscher HN](#), [Ferdinands L](#), [MacLeod A](#), [Robitaille MA](#), [Rouleau M](#) **Source:** Acad Med, 83(10): 934-40 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$38.00

Abstract: Faculties (i.e., schools) of medicine along with their sister health discipline faculties can be important organizational vehicles to promote, cultivate, and direct interprofessional education (IPE). The authors present information they gathered in 2007 about five Canadian IPE programs to identify key factors facilitating transformational change within institutional settings toward successful IPE, including (1) how successful programs start, (2) the ways successful programs influence academia to bias toward change, and (3) the ways academia supports and perpetuates the success of programs. Initially, they examine evidence regarding key factors that facilitate IPE implementation, which include (1) common vision, values, and goal sharing, (2) opportunities for collaborative work in practice and learning, (3) professional development of faculty members, (4) individuals who are champions of IPE in practice and in organizational leadership, and (5) attention to sustainability. Subsequently, they review literature-based insights regarding barriers and challenges in IPE that must be addressed for success, including barriers and challenges (1) between professional practices, (2) between academia and the professions, and (3) between individuals and faculty members; they also discuss the social context of the participants and institutions. The authors conclude by recommending what is needed for institutions to entrench IPE into core education at three levels: micro (what individuals in the faculty can do); meso (what a faculty can promote); and macro (how academic institutions can exert its influence in the health education and practice system).


Acad Med, 83(10): 934-40 2008

Yes, virginia, there are system benefits to be gained from providing patients access to their own health information. **Author:** [Leonard KJ](#), [Wiljer D](#), [Urowitz S](#) **Source:** *Healthc Q*, 11(4): 64-8 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: In the 1960s, Pierre Trudeau popularized the phrase "The Just Society" when he took over as the federal minister of justice. Four decades later, we have evolved into "The Informed Society," where consumers from all types of businesses and industries are playing larger roles in both the purchase and the development of products and services. One has to look no farther than the World Wide Web and the fascinating growth of sites such as YouTube (www.youtube.com) and Facebook (www.facebook.com) for evidence. In healthcare, however, such "grass roots" contributions have been slower to come to the fore, although recently initiatives like Google Health, Microsoft HealthVault and PatientsLikeMe are emerging as alternatives to the status quo. One reason for this latency in healthcare is a lack of familiarity with the system that uses language and jargon that is not accessible to the average consumer. Further, there is a lack of appreciation on behalf of consumers regarding the benefits resulting from the role that empowered patients can play. In addition, there are no "information access" points whereby communication between patients and the system can be affected. Ultimately, patients lack the encouragement, education and means surrounding their potential contribution.

Cost comparison between telemonitoring and usual care of heart failure: a systematic review. **Author:** [Seto E](#) **Source:** *Telemed J E Health*, 14(7): 679-86 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$45.00

Abstract: Heart failure (HF) is associated with high direct and indirect costs to the patients and the healthcare system. This systematic review aims to analyze existing economic data to determine whether telemonitoring of patients with HF will result in decreased costs. The Scopus and PubMed databases were searched independently by two reviewers for journal articles that reported on an economic analysis (i.e., calculated monetary amounts or percentage change in costs) of a study using a HF telemonitoring system. Only articles describing telemonitoring systems with a component of home physiological measurements were included. Eleven articles met the inclusion criteria, describing 10 different HF telemonitoring systems. Nine of the 10 studies analyzed the direct costs to the healthcare system. All the studies found cost reductions from telemonitoring compared to usual care, which ranged between 1.6% and 68.3%. Cost reductions were mainly attributed to reduced hospitalization expenditures. Only one study discussed the impact of HF telemonitoring on direct patient costs. The study found a 3.5% lower travel cost for patients using telemonitoring compared to those in the usual care group. The single study that was found for indirect costs described the willingness to pay for telemedicine by patients with HF (55% of the patients with HF were willing to pay \$20 to access telemedicine, and 19% were willing to pay \$40). Available data from existing studies suggest that although HF telemonitoring will require an initial financial investment, it will substantially reduce costs in the long term, particularly by reducing rehospitalization and travel costs.

Source: *Telemed J E Health*, ID:18817497

Health information systems--technology and acceptance. Findings from the section on health information systems. **Author:** [Bott OJ](#) **Source:** *Yearb Med Inform*, (): 61-5 2007

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: **OBJECTIVES:** To summarize current outstanding research in the field of health information systems (HIS). **METHOD:** Synopsis of the articles selected for the IMIA Yearbook 2007. **RESULTS:** Five articles from three international peer reviewed journals were selected for the HIS section of the IMIA Yearbook 2007. They represent outstanding research on new user interfaces for mobile data entry, smart card

based approaches for national eHealth projects, generic system architectures for telemedicine services, new approaches for electronic prescriptions based on ubiquitous computing, and telemedical systems for chronic care in COPD. CONCLUSIONS: In the field of health information systems, evaluation and general architectural aspects of telemedical platforms respectively eHealth infrastructures currently is an important research topic as well as establishing acceptance of new technologies from the users and the organizations point of view.

Source:*Yearb Med Inform*, ID:17700905

The organizing vision of integrated health information systems. **Author:** [Ellingsen G](#), [Monteiro E](#) **Source:** *Health Informatics J*, 14(3): 223-36 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$28.00

Abstract: The notion of 'integration' in the context of health information systems is ill-defined yet in widespread use. We identify a variety of meanings ranging from the purely technical integration of information systems to the integration of services. This ambiguity (or interpretive flexibility), we argue, is inherent rather than accidental: it is a necessary prerequisite for mobilizing political and ideological support among stakeholders for integrated health information systems. Building on this, our aim is to trace out the career dynamics of the vision of 'integration/ integrated'. The career dynamics is the transformation of both the imaginary and the material (technological) realizations of the unfolding implementation of the vision of integrated care. Empirically we draw on a large, ongoing project at the University Hospital of North Norway (UNN) to establish an integrated health information system.

Source:*Health Informatics J*, ID:18775828

Scenarios to capture work processes in shared homecare-From analysis to application. **Author:** [HÅggglund M](#), [Scandurra I](#), [Koch S](#) **Source:** *Int J Med Inform*, (): 0 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: BACKGROUND: Shared homecare is increasingly common, and in order to develop ICT that support such complex cooperative and interdisciplinary work it is crucial to obtain an understanding of work processes at the clinical level before the development is initiated. It is also crucial, but difficult, to correctly transfer this insight to the development team. METHOD: User-centered scenario building in interdisciplinary working groups is applied for capturing cooperative work routines, information demands, and other central preconditions in shared homecare. RESULTS: Use of scenarios for analysis of cooperative work and as information carrier is described via a case from the multi-disciplinary OLD@HOME project. Both current and future work scenarios were elicited. To illustrate the process of transforming scenarios into more technical descriptions (use cases), and finally into an application, examples showing the transparency in resulting use cases and in the implemented system are provided. CONCLUSION: In this case study, scenarios proved to be useful not only in initial system development phases but throughout the entire development process, improving accessibility and assessment of end user needs. For the development team, scenarios assisted in solving usability issues, and served as a basis for describing use cases and for further system development. More importantly, the shared care scenarios ensured the provision of different perspectives on common work processes, which are often neglected in conventional requirements specifications. This also improved understanding between different clinical groups and between clinicians and developers.

Source:*Int J Med Inform*, ID:18762445

Association of Multiple Behavioral Risk Factors with Adolescents' Willingness to Engage in eHealth Promotion. **Author:** [Tercyak KP](#), [Abraham AA](#), [Graham AL](#), [Wilson LD](#), [Walker LR](#) **Source:** *J Pediatr Psychol*, (): 0 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$31.00

Abstract: OBJECTIVE: This study examines adolescents' willingness to use the internet and other forms of technology for health promotion purposes (i.e., "eHealth promotion" willingness) and determines if a relationship exists between adolescents' behavioral risks and their eHealth promotion willingness.

METHODS: A total of 332 adolescents provided data at a routine medical check-up, including assessments of technology access, eHealth promotion willingness, and multiple behavioral risk factors for child- and adult-onset disease (body mass index, physical activity, smoking, sun protection, depression). RESULTS: The level of access to technology among the sample was high, with moderate willingness to engage in eHealth promotion. After adjusting for adolescents' access to technology, the presence of multiple behavioral risk factors was positively associated with willingness to use technology for health promotion purposes ($\beta = .12$, $p = .03$). CONCLUSIONS: Adolescents with both single and multiple behavioral risk factors are in need of health promotion to prevent the onset of disease later in life. eHealth appears to be an acceptable and promising intervention approach with this population.

Source: *J Pediatr Psychol*, ID:18723566

Organizational factors affecting successful adoption of innovative eHealth services: A case study employing the FITT framework. **Author:** [Tsiknakis M](#), [Kouroubali A](#) **Source:** *Int J Med Inform*, (): 0 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: OBJECTIVE: The paper presents an application of the "Fit between Individuals, Task and Technology" (FITT) framework to analyze the socio-organizational-technical factors that influence IT adoption in the healthcare domain. METHOD: The FITT framework was employed as the theoretical instrument for a retrospective analysis of a 15-year effort in implementing IT systems and eHealth services in the context of a Regional Health Information Network in Crete. Quantitative and qualitative research methods, interviews and participant observations were employed to gather data from a case study that involved the entire region of Crete. RESULTS: The detailed analysis of the case study based on the FITT framework, showed common features, but also differences of IT adoption within the various health organizations. The emerging picture is a complex nexus of factors contributing to IT adoption, and multi-level interventional strategies to promote IT use. CONCLUSION: The work presented in this paper shows the applicability of the FITT framework in explaining the complexity of aspects observed in the implementation of healthcare information systems. The reported experiences reveal that fit management can be viewed as a system with a feedback loop that is never really stable, but ever changing based on external factors or deliberate interventions. Management of fit, therefore, becomes a constant and complex task for the whole life cycle of IT systems.

Source: *Int J Med Inform*, ID:18723389

WHIST: a web-based survey on health information seeking on Internet in France, 2007. **Author:** [Renahy E](#), [Parizot I](#), [Chauvin P](#) **Source:** *AMIA Annu Symp Proc*, (): 1090-1 2007

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: Since the widespread use of the Internet, few studies have examined health information seeking in France. A web-based survey was conducted to understand how and why French people use the Internet for health information seeking. SES and psychosocial characteristics, health status, illness perception, and

characteristics of web-based searches were assessed and studied using the ehealth literacy concept. We do not demonstrate that Internet is used instead of general practitioner or the healthcare system.

Source:*AMIA Annu Symp Proc*, ID:18694188

Report on the World Health Organization Global Observatory for eHealth strategic planning workshop, April 2008. **Author:** [Kay M](#), [Santos J](#) **Source:** *Methods Inf Med*, 47(4): 381-7 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$15.00

Abstract: The World Health Organization's Global Observatory for eHealth (GOe) conducted its first strategic workshop at Bellagio, Italy on April 9 to 11, 2008. Supported by a grant from the Rockefeller Foundation, the workshop brought together a select group of twenty-one eHealth experts from around the globe to help plan for the future of the Observatory. Participants were chosen from all six WHO regions and included a mix of researchers, practitioners, specialist physicians, academics and consultants. Key issues addressed included: how to build a dynamic and cohesive network of National Observatories to improve worldwide eHealth data collection; analysis and reporting; developing Thematic Working Groups in specialist eHealth themes; eHealth assessment frameworks; the development of the research agenda for the second global survey; cultivating partnerships; and governance.

Source:*Methods Inf Med*, ID:18690371

Virtual health care center in Georgia. **Author:** [Schrader T](#), [Kldiashvili E](#) **Source:** *Diagn Pathol*, 3 Suppl 1(): S4 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: ABSTRACT : Application of telemedicine systems to cover distant geographical areas has increased recently. However, the potential usefulness of similar systems for creation of national networks does not seem to be widely appreciated. The article describes the "Virtual Health Care Knowledge Center in Georgia" project. Its aim was the set up of an online integrated web-based platform to provide remote medical consultations and eLearning cycles. The project "Virtual Health Care Knowledge Center in Georgia" was the NATO Networking Infrastructure Grant dedicated for development of telemedicine in non-NATO countries. The project implemented a pilot to organize the creation of national eHealth network in Georgia and to promote the use of innovative telemedicine and eLearning services in the Georgian healthcare system. In June 2007 it was continued under the NATO Networking Infrastructure Grant "ePathology - Virtual Pathology Center in Georgia as the Continuation of Virtual Health Care Center".

Source:*Diagn Pathol*, ID:18673518

A survey on non specialized off-the-shelf JPEG2000 viewers for digital microscopy use. **Author:** [Della Mea V](#), [Bortolotti N](#), [Beltrami CA](#) **Source:** *Diagn Pathol*, 3 Suppl 1(): S20 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: ABSTRACT : The present paper will present a survey on features of a number of non-specialized off-the-shelf JPEG2000 viewers, seen from the point of view of digital microscopy. Selected viewers were tested within a number of usage scenarios, including: i) open a conformance test JPEG2000 file; ii) open a large JPEG2000 file; iii) moving from one point to another; iv) changing resolution/magnification. For each scenario, data recorded included: successful or unsuccessful operation; time needed for conclusion; occasional

problems. Preliminary results demonstrate that JPEG2000 conformance as stated by many viewers is only limited to some of the possibilities of the JPEG2000 standard, in particular for what regards file size.

Source:*Diagn Pathol*, ID:18673509

Education and consumer informatics: improvements in existing systems. Findings from the Yearbook 2008 Section on Education and Consumer Informatics. **Author:** [Boyer C](#) **Source:** Yearb Med Inform, (): 88-90 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: OBJECTIVES: To provide an overview of the current excellent research done in the field of advancements in Education and Consumer Informatics as well as studies done to better understand, the already existing systems. METHOD: Synopsis of the articles on education and consumer health selected for the IMIA Yearbook of Medical Informatics 2008. RESULTS: In the domain of education, eHealth literacy becomes a key topic and a challenge, the Internet evolving as the primary medium to access health information. A system developed to measure the eHealth literacy level of consumers reflects the importance of this skill. In consumer health informatics, the selected papers emphasize valuable advances in bridging the information gap as well as the growing implementation of functioning systems. CONCLUSION: The selected articles highlight the need for recognising existing weak links in the healthcare system and then strengthening them through patient education and involvement, as well as possible improvements through real-world implementations.

Source:*Yearb Med Inform*, ID:18660882

Get connected to the Tennessee eHealth Exchange Zone. **Author:** [Agassi A](#) **Source:** Tenn Med, 101(7): 23-5 2008

eHealth: R U connected? **Author:** [Williams B](#) **Source:** Tenn Med, 101(7): 21-3 2008

A development framework for semantically interoperable health information systems. **Author:** [Lopez DM](#), [Blobel BG](#) **Source:** Int J Med Inform, (): 0 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: BACKGROUND: Semantic interoperability is a basic challenge to be met for new generations of distributed, communicating and co-operating health information systems (HIS) enabling shared care and e-Health. Analysis, design, implementation and maintenance of such systems and intrinsic architectures have to follow a unified development methodology. METHODS: The Generic Component Model (GCM) is used as a framework for modeling any system to evaluate and harmonize state of the art architecture development approaches and standards for health information systems as well as to derive a coherent architecture development framework for sustainable, semantically interoperable HIS and their components. The proposed methodology is based on the Rational Unified Process (RUP), taking advantage of its flexibility to be configured for integrating other architectural approaches such as Service-Oriented Architecture (SOA), Model-Driven Architecture (MDA), ISO 10746, and HL7 Development Framework (HDF). RESULTS: Existing architectural approaches have been analyzed, compared and finally harmonized towards an architecture development framework for advanced health information systems. CONCLUSION: Starting with the requirements for semantic interoperability derived from paradigm changes for health information systems, and supported in formal software process engineering methods, an appropriate development framework for

semantically interoperable HIS has been provided. The usability of the framework has been exemplified in a public health scenario.

Source:*Int J Med Inform*, ID:18621574


Data privacy considerations in Intensive Care Grids. **Author:** [Luna J](#), [Dikaiakos MD](#), [Kyprianou T](#), [Bilas A](#), [Marazakis M](#) **Source:** *Stud Health Technol Inform*, 138(): 178-87 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: Novel eHealth systems are being designed to provide a citizen-centered health system, however the even demanding need for computing and data resources has required the adoption of Grid technologies. In most of the cases, this novel Health Grid requires not only conveying patient's personal data through public networks, but also storing it into shared resources out of the hospital premises. These features introduce new security concerns, in particular related with privacy. In this paper we survey current legal and technological approaches that have been taken to protect a patient's personal data into eHealth systems, with a particular focus in Intensive Care Grids. However, thanks to a security analysis applied over the Intensive Care Grid system (ICGrid) we show that these security mechanisms are not enough to provide a comprehensive solution, mainly because the data-at-rest is still vulnerable to attacks coming from untrusted Storage Elements where an attacker may directly access them. To cope with these issues, we propose a new privacy-oriented protocol which uses a combination of encryption and fragmentation to improve data's assurance while keeping compatibility with current legislations and Health Grid security mechanisms.


Source:*Stud Health Technol Inform*, ID:18560120

How can the German Electronic Health Card support patient's role in care management. **Author:** [Pharow P](#), [Blobel B](#), [Hildebrand C](#) **Source:** *Stud Health Technol Inform*, 137(): 386-401 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: All types of advanced communication, collaboration, and cooperation in healthcare require a strong involvement of all addressed parties including health professionals and patients. Modern healthcare aims at involving patients having them take over responsibility for their own health status. Allowing them to take on their changed roles as emancipated partners in advanced care management, health professionals need to be educated and patients need to be empowered. From a security viewpoint, health issues have to be communicated via trusted health networks. To provide communication and cooperation between professionals and patients as well as to guarantee the required level of involvement of patients in shared care management environments, cards are widely used as person identifiers, on the one hand, and as security tokens, on the other. Being introduced as storage media and portable personalized application system, cards enable a patient controlled access to personalized health services as well as proper use and exchange of personal health data for specific purposes such as emergency. Furthermore, cards allow access to the wider electronic patient record via pointers or tickets. Cards can empower patients. The German Electronic Health Card (eGK) shall thus support care management and specific workflow processes e.g. for prescription and disease management. Regardless whether designed as data or pointer card - international standardization is a prerequisite also for national solutions. The more information patients have regarding different procedures and processes in healthcare, the more are they able to play their dedicated role within care management. Cards can and will contribute by allowing patients to get controlled access to administrative and medical data stored either on cards or in networks. Card holders determine who has access to their health information.


Finland's strategy and implementation of citizens' access to health information. **Author:** [Ruotsalainen P](#), [Iivari AK](#), [Doupi P](#) **Source:** *Stud Health Technol Inform*, 137(): 379-85 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: The strategy for utilizing information technology in the field of social welfare and health care in Finland was published in 1996. It was redefined in the year 2006. This updated strategy defined basic principles how digitized EHRs should be stored, accessed, disclosed and archived. The strategy together with new legislation opened the right to patients and citizens to access their own EHRs, ePrescriptions and audit-logs via the Internet. A national WEB-service platform forms the base for both public and private eHealth applications. National identification and PKI-services cover health professionals, patients and entities. Citizen's consent management is provided at national level. The access to personal health information is managed using rules derived from legislation. The roll-out of the national health information infrastructure with citizen access to personal health information should by law be finalized before the end of 2011. The implementation of the NHII is demanding, but the real challenge is to clearly understand what the impacts of citizen access to personal health information are and to what direction this kind of services should be developed. At the present state, the Finnish EHR-archive contains only information created by a health professional. Citizens' eHealth services can not be limited to the use of regulated EHR data and ePrescriptions. For health promotion, proactive prevention and health prediction more comprehensive information is needed. Therefore the next step is to develop legislation and to build a trusted environment for the use and access of heterogeneous health and welfare information.

Source:*Stud Health Technol Inform*, ID:18560100

Architectural approaches to health information systems for empowering the subject of care. **Author:** [Blobel B](#), [Pharow P](#) **Source:** *Stud Health Technol Inform*, 137(): 355-66 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: The personal health paradigm puts the citizen in the health services business process center. This enhances the subject of care's opportunities, rights and duties regarding his/her health status and the process for maintaining and improving it. First, the citizen and his/her direct environment have to become part of the health information systems network. This implies diagnostic and therapeutic processes performed to the subject of care independent of time, location and local resources by closing the gap through appropriate mobile and miniaturized medical devices up to an implantable level. The individualization of care delivery services requires individualized diagnostic and therapeutic means based on bioinformatics and genomics methodologies. As the individual needs of a subject of care are not predictable, the system architecture must adaptively and autonomously, integrating all domains defining eHealth. Second, the architecture must be policy-controlled for empowering the subject of care, offering all privacy and security services needed. Third, embedded in the system architecture, the subject needs the knowledge presented in the right way using the right terminology to enable the intended empowerment.

Source:*Stud Health Technol Inform*, ID:18560097


Social network of PESCA (Open Source Platform for eHealth). **Author:** [Sanchez CL](#), [Romero-Cuevas M](#), [Lopez DM](#), [Lorca J](#), [Alcazar FJ](#), [Ruiz S](#), [Mercado C](#), [Garcia-Fortea P](#) **Source:** *Stud Health Technol Inform*, 137(): 340-5 2008

 [Service Fee:](#) \$12.00 ; [Copyright Royalties:](#) \$18.00

Abstract: Information and Communication Technologies (ICTs) are revolutionizing how healthcare systems deliver top-quality care to citizens. In this way, Open Source Software (OSS) has demonstrated to be an important strategy to spread ICTs use. Several human and technological barriers in adopting OSS for healthcare have been identified. Human barriers include user acceptance, limited support, technical skillfulness, awareness, resistance to change, etc., while Technological barriers embrace need for open standards, heterogeneous OSS developed without normalization and metrics, lack of initiatives to evaluate existing health OSS and need for quality control and functional validation. The goals of PESCA project are to create a platform of interoperable modules to evaluate, classify and validate good practices in health OSS. Furthermore, a normalization platform will provide interoperable solutions in the fields of healthcare services, health surveillance, health literature, and health education, knowledge and research. Within the platform, the first goal to achieve is the setup of the collaborative work infrastructure. The platform is being organized as a Social Network which works to evaluate five scopes of every existing open source tools for eHealth: Open Source Software, Quality, Pedagogical, Security and privacy and Internationalization/I18N. In the meantime, the knowledge collected from the networking will configure a Good Practice Repository on eHealth promoting the effective use of ICT on behalf of the citizen's health.

Source:*Stud Health Technol Inform*, ID:18560095

The transition from 'informed patient' care to 'patient informed' care. **Author:** [Gardiner R](#) **Source:** *Stud Health Technol Inform*, 137(): 241-56 2008

 [Service Fee:](#) \$12.00 ; [Copyright Royalties:](#) \$18.00

Abstract: We are in the midst of a real change in the application of information technology to support the delivery of healthcare. We are seeing a shift from the 'informed patient' which has resulted from improved access to healthcare information, primarily from the Web, to the 'participative patient' as we move into Web 2.0 territory. The last decade has seen significant strides in the application of healthcare information to support patient care including: Increased access to healthcare related information by the patient through access to healthcare information on the Web (1.0). The development of electronic patient/health records. Improved access to knowledge for care professionals has enabled the dissipation of professional clinical skills with the introduction of nurse practitioners and increased use of therapies. Improved access to patient related information across disciplines is beginning to enable the shift from acute based to community based care. The introduction of home care technologies has enabled self monitoring in supporting self care. There are also developments in the way care is provided with an increasing diversity of healthcare providers with the challenges this has presented in exchanging patient related information to support continuity of care. We are now at another major turning point that could present greater challenges for healthcare professionals, organisations and the patient or client. These developments include: The application of information sharing services commonly referred to as Web 2.0. As a result we are seeing a transition from the 'informed patient' to the 'participative patient' that will present increasing challenges for healthcare professionals and healthcare organisations in adapting care to embrace this evolution. New entrants to the ehealth market are now emerging such as Google and Microsoft who are competing to 'own' the 'healthcare consumer'. Open source solutions for EPR/EHRs are now emerging that will challenge the traditional mechanisms for delivery of organisational healthcare solutions. Technologies that have been growing in use and demand over the past decade are now being applied to healthcare including digital TV and mobile computing. What then are the challenges for patients, healthcare organisations and information service providers as we move from the passive role of the patient in the provision of their care to a more participative role?

Source:*Stud Health Technol Inform*, ID:18560085

Seed funding available to drive adoption of EMRs and ePrescribing. **Author:** [Agassi A](#) **Source:** *Tenn Med*, 101(4): 35-6, 39 2008

IHE based interoperability - benefits and challenges. **Author:** [Wozak F](#), [Ammenwerth E](#), [HÄrberst A](#), [SÄligner P](#), [Mair R](#), [Schabetsberger T](#) **Source:** *Stud Health Technol Inform*, 136(): 771-6 2008

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Abstract: INTRODUCTION: Optimized workflows and communication between institutions involved in a patient's treatment process can lead to improved quality and efficiency in the healthcare sector. Electronic Health Records (EHRs) provide a patient-centered access to clinical data across institutional boundaries supporting the above mentioned aspects. Interoperability is regarded as vital success factor. However a clear definition of interoperability does not exist. The aim of this work is to define and to assess interoperability criteria as required for EHRs. METHODS: The definition and assessment of interoperability criteria is supported by the analysis of existing literature and personal experience as well as by discussions with several domain experts. RESULTS: Criteria for interoperability addresses the following aspects: Interfaces, Semantics, Legal and organizational aspects and Security. The Integrating the Healthcare Enterprises initiative (IHE) profiles make a major contribution to these aspects, but they also arise new problems. Flexibility for adoption to different organizational/regional or other specific conditions is missing. Regional or national initiatives should get a possibility to realize their specific needs within the boundaries of IHE profiles. Security so far is an optional element which is one of IHE greatest omissions. An integrated security approach seems to be preferable. DISCUSSION: Irrespective of the so far practical significance of the IHE profiles it appears to be of great importance, that the profiles are constantly checked against practical experiences and are continuously adapted.

Source:*Stud Health Technol Inform*, ID:18487825


Enhanced semantic interpretability by healthcare standards profiling.

Author:Lopez DM,Blobel BG, Volume:136 Issue:, Page:735-40 Year:2008

Source:*Stud Health Technol Inform*, ID:18487819

Enhanced semantic interpretability by healthcare standards profiling. **Author:** [Lopez DM](#), [Blobel BG](#)

Source: *Stud Health Technol Inform*, 136(): 735-40 2008

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Abstract: Several current healthcare standards support semantic interoperability. These standards are far to be completely adopted in health information system development, however. The objective of this paper is to provide a method and necessary tooling for reusing healthcare standards by exploiting the extensibility mechanisms of UML, by that way supporting the development of semantically interoperable systems and components. The method identifies first the models and tasks in the software development process in which health care standards can be reused. Then, the selected standard is formalized as a UML profile. Finally that profile is applied to system models, annotating them with the standard semantics. The supporting tools are Eclipse-based UML modeling tools. The method is integrated into a comprehensive framework for health information systems development. The feasibility of the approach is exemplified by a scenario reusing HL7 RIM and DIMs specifications. The approach presented is also applicable for harmonizing different standard specifications.

Procurement of prescriber support systems.

Author:Kajbjer K, Volume:136 Issue:, Page:729-34 Year:2008


Source:*Stud Health Technol Inform*, ID:18487818

Procurement of prescriber support systems. **Author:** [Kajbjer K](#) **Source:** *Stud Health Technol Inform*, 136(): 729-34 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: Supporting the process of medication selection and electronic management of prescriptions is a high priority issue in the eHealth strategies of many countries today. Procuring such systems can be quite difficult, especially if one should encourage suppliers from different countries to participate. The new ISO Technical Report 22,790 provides a new approach to facilitate this process by giving an international basis for specifying the functional characteristics desired. The paper describes the content of the report and discusses the procurement process in the light of the European public procurement directive and patient safety.


Security, safety, and related technology - the triangle of eHealth service provision. **Author:** [Savastano M](#), [Hovsto A](#), [Pharow P](#), [Blobel B](#) **Source:** *Stud Health Technol Inform*, 136(): 709-14 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: The developing of innovative solutions in the emerging eHealth market requires strong economic efforts which may be justified only in presence of particularly suitable boundary conditions. Among the factors retained of primary importance for the development of eHealth, a correct approach to id-management is unanimously considered fundamental. Three keywords in the id-management context appear particularly important: standardization, security and safety. Standardization may contribute to increase the size and duration of the eHealth market, while security and safety may encourage all the stakeholders to trust in a appropriate and safe management of all the very sensitive personal data involved in the eHealth applications. The aim of the present paper is analyzing some security and safety issues in eHealth from the particular prospective of the identity management and standardization. The paper highlights the mission of the EU funded "BioHealth" project whose mission is to increase the stakeholders' knowledge about existing and emerging standards in eHealth with particular reference to identity management.

Source:*Stud Health Technol Inform*, ID:18487815

Mobile health requires mobile security: challenges, solutions, and standardization. **Author:** [Pharow P](#), [Blobel B](#) **Source:** *Stud Health Technol Inform*, 136(): 697-702 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: Extended communication and advanced cooperation in a permanently growing healthcare and welfare domain require a well-defined set of security services provided by an interoperable security infrastructure based on international and European standards. Any communication and collaboration procedure requires a purpose. But such legal purpose-binding is definitely not the only aspect to carefully be observed and investigated. More and more, aspects of security, safety, privacy, ethics, and quality reach importance while discussing about future-proof health information systems and health networks - regardless whether local, regional or even pan-European networks. During the course of the current paradigm change from an organization-centered to a process-related and to a person-centered health system, different new technologies including mobile solutions need to be applied in order to meet challenges arising from both legal and technical circumstances. Beside the typical Information and Communication Technology systems and applications, the extended use of modern technologies includes large medical devices like, e.g., MRI and CT but also small devices like sensors worn by a person or included in clothing. Security and safety are on top of

the priority list. The paper addresses the identification of some specific aspects like mobile technology and safety when moving both IT and people towards mobile health aiming at increasing citizens and patients awareness, confidence, and acceptance in future mobile care - a world often still beyond the horizon.

Source:*Stud Health Technol Inform*, ID:18487813


Empowerment of health professionals: how high level security education can raise awareness and confidence. **Author:** [Herbst M](#), [Busch C](#), [Pharow P](#), [Blobel B](#) **Source:** *Stud Health Technol Inform*, 136(): 673-8 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: Setting up networks among physicians and other health professionals in virtually any medical discipline is an important part of establishing eHealth world-wide. Medical research strategies nowadays advance diagnostic and therapeutic knowledge and guidelines allowing patients to benefits. Patient data and samples are among the most sensitive information and must carefully be protected according to rules of ethics and professional discretion as well as national and international privacy legislation. A lot has been said about "patient involvement, patient empowerment". What about health professionals? How can they be involved and empowered to address the paradigm shift towards a personalized health service provision? Information and communication technology (ICT), medical devices, and software applications are not among the topics health professionals typically deal with while being theoretically and practically trained to diagnose diseases and treat patients. An ICT-based training and information provision is required to update the ICT skills of health professionals. The German CAST association provides such an information platform where health professionals attend applied computer security education events. This article aims at describing how ICT and security education is provided to health professionals, and how these training courses are designed, structured, performed, and assessed.

Source:*Stud Health Technol Inform*, ID:18487809


Cross-border collaboration between Greece and FYROM: mobile healthcare provision. **Author:** [Spyrou S](#), [Vartzopoulos D](#), [Bamidis P](#), [Maglaveras N](#) **Source:** *Stud Health Technol Inform*, 136(): 653-8 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: Introduction of eHealth tools and applications denotes the new era in health care sector and especially in health care networks. The telemedicine applications in cross-border areas, referred as a Cross-Border Health network, serve the improvement of the quality of life for the population in cross-border areas. In this work a framework for such a network concerning the collaboration between Greece and FYROM is described. The network is in the first phase of design and is expected to be implemented within the next year. The requirements, the restrictions and the design of the network has been defined by the healthcare professionals and it staff that participate in the project. The results, so far, reveal the acceptance of the system from the staff of the healthcare organizations, while detailed results for the performance of the system will be available in the first quarter of the next year. The work denotes the successful efforts for the development of Cross-border Health Networks.

Source:*Stud Health Technol Inform*, ID:18487805

The role of patients and their health cards in integrated eHealth environments. **Author:** [Hildebrand C](#), [Pharow P](#), [Blobel B](#) **Source:** *Stud Health Technol Inform*, 136(): 629-34 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: Communication and co-operation processes in healthcare and welfare require the involvement of all parties involved, including health professionals as well as patients. Generally, professionals can and will easily communicate via trusted health networks. To enforce both communication and co-operation between professionals and patients and to guarantee the required degree of involvement of patients in shared care environments, smart cards are widely used. They serve as person identifiers on the one hand and as security token on the other hand. Acting as storage media and portable application systems, patient data cards enable patient-controlled exchange and the use of personal health data for specific purposes such as prescription and disease management. Additionally, patient status data such as the emergency data or the immunisation record may be stored in and communicated by patient data cards.

Source:*Stud Health Technol Inform*, ID:18487801

Application of the multi-disciplinary thematic seminar method in two homecare cases - a comparative study.

Author: [Scandurra I](#), [Håggglund M](#), [Koch S](#) **Source:** *Stud Health Technol Inform*, 136(): 597-602 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: A significant problem with current health information technologies is that they poorly support collaborative work of healthcare professionals, sometimes leading to a fragmentation of workflow and disruption of healthcare processes. **OBJECTIVE:** This paper presents two homecare cases, both applying multi-disciplinary thematic seminars (MdTS) as a collaborative method for user needs elicitation and requirements specification. **METHODS:** This study describes the MdTS application to elicit user needs from different perspectives to coincide with collaborative professions' work practices in two cases. **RESULTS:** Despite different objectives, the two cases validated that MdTS emphasized the "points of intersection" in cooperative work. Different user groups with similar, yet distinct needs reached a common understanding of the entire work process, agreed upon requirements and participated in the design of prototypes supporting cooperative work. **CONCLUSION:** MdTS was applicable in both exploratory and normative studies aiming to elicit the specific requirements in a cooperative environment.

Source:*Stud Health Technol Inform*, ID:18487796


Involving clinicians in the development of an electronic clinical handover system - thinking systems not just technology. **Author:** [Wong MC](#), [Turner P](#), [Yee KC](#) **Source:** *Stud Health Technol Inform*, 136(): 490-5 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: While the need to 'involve the user' in information technology (IT) development is almost a mantra amongst information systems specialists, numerous IT projects continue to fail because of an inability to capture user insights or respond to users needs. Although there are clearly practical difficulties in addressing and responding to the heterogeneous requirements expressed by different users, marginalizing these views ultimately is to the detriment of the systems built. This paper describes the development of an electronic clinical handover system at the Department of General Internal Medicine (DGIM), Royal Hobart Hospital (RHH). More specifically, the paper aims to highlight how to engage meaningfully with clinicians in the development of a sustainable system. It is anticipated that by drawing attention to the importance of users and by outlining the practical experience of dealing with the diversity of requirements and views expressed, the paper can contribute to a stronger recognition within the domain of eHealth for a user-centred systems approach to IT development.

Source:*Stud Health Technol Inform*, ID:18487779

Analysis and evaluation of EHR approaches. **Author:** [Blobel BG](#), [Pharow P](#) **Source:** *Stud Health Technol Inform*, 136(): 359-64 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: EHR systems are core applications in any eHealth/pHealth environment and represent basic services for health telematics platforms. Many projects are performed at the level of Standards Developing Organizations or national programs, respectively, for defining EHR architectures as well as related design, implementation, and deployment processes. Claiming to meet the challenge for semantic interoperability and offering the right pathway, the resulting documents and specifications are sometimes controversial and even inconsistent. Based on a long tradition in the EHR domain, on the collective experience of academic groups such as the EFMI EHR Working Group, and on an active involvement at CEN, ISO, HL7 and several national projects around the globe, an analysis and evaluation study has been performed using the Generic Component Model reference architecture. Strengths and weaknesses of the different approaches as well as migration pathways for re-using and harmonizing the available materials are offered.

Source: *Stud Health Technol Inform*, ID:18487757

An easy to use and affordable home-based personal eHealth system for chronic disease management based on free open source software. **Author:** [Burkow TM](#), [Vognild LK](#), [Krogstad T](#), [Borch N](#), [Ostengen G](#), [Bratvold A](#), [Risberg MJ](#) **Source:** *Stud Health Technol Inform*, 136(): 83-8 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: This paper describes an easy to use home-based eHealth system for chronic disease management. We present the design and implementation of a prototype for home based education, exercises, treatment and following-up, with the TV and a remote control as user interface. We also briefly describe field trials of the system for patients with COPD and diabetes, and their experience with the technology.

Source: *Stud Health Technol Inform*, ID:18487712

Evaluation of internet-based technology for supporting self-care: problems encountered by patients and caregivers when using self-care applications. **Author:** [Nijland N](#), [van Gemert-Pijnen J](#), [Boer H](#), [Steehouder MF](#), [Seydel ER](#) **Source:** *J Med Internet Res*, 10(2): e13 2008


 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: BACKGROUND: Prior studies have shown that many patients are interested in Internet-based technology that enables them to control their own care. As a result, innovative eHealth services are evolving rapidly, including self-assessment tools and secure patient-caregiver email communication. It is interesting to explore how these technologies can be used for supporting self-care. OBJECTIVE: The aim of this study was to determine user-centered criteria for successful application of Internet-based technology used in primary care for supporting self-care. METHODS: We conducted scenario-based tests combined with in-depth interviews among 14 caregivers and 14 patients/consumers to describe the use of various self-care applications and the accompanying user problems. We focused on the user-friendliness of the applications, the quality of care provided by the applications, and the implementation of the applications in practice. RESULTS: Problems with the user-friendliness of the self-care applications concerned inadequate navigation structures and search options and lack of feedback features. Patients want to retrieve health information with as little effort as possible; however, the navigation and search functionalities of the applications appeared incapable of handling patients' health complaints efficiently. Among caregivers, the lack of feedback and documentation possibilities caused inconvenience. Caregivers wanted to know how patients acted on their advice, but the applications did

not offer an adequate feedback feature. Quality of care problems were mainly related to insufficient tailoring of information to patients' needs and to efficiency problems. Patients expected personalized advice to control their state of health, but the applications failed to deliver this. Language (semantics) also appeared as an obstacle to providing appropriate and useful self-care advice. Caregivers doubted the reliability of the computer-generated information and the efficiency and effectiveness of secure email consultation. Legal or ethical issues with respect to possible misuse of email consultation also caused concerns. Implementation problems were mainly experienced by caregivers due to unclear policy on email consultation and the lack of training for email consultations. **CONCLUSIONS:** Patients' and caregivers' expectations did not correspond with their experiences of the use of the Internet-based applications for self-care. Patients thought that the applications would support them in solving their health problems. Caregivers were more reserved about the applications because of medico-legal concerns about misuse. However, the applications failed to support self-care because eHealth is more than just a technological intervention. The design of the applications should include a way of thinking about how to deliver health care with the aid of technology. The most powerful application for self-care was secure email consultation, combined with a suitable triage mechanism to empower patients' self-awareness. Future research should focus on the effectiveness of such Web-based triage mechanisms for medical complaints and on the development of interactive features to enhance patients' self-care.

Source: *J Med Internet Res*, ID:18487137


Introducing ehealth to nursing homes: theoretical analysis of improving resident care. **Author:** [Breen GM](#), [Zhang NJ](#) **Source:** *J Med Syst*, 32(2): 187-92 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$35.00

Abstract: The purpose of this analysis argues that the technology acceptance model and the theory of task technology fit offer justification for the introduction and integration of ehealth web sites (i.e., WebMd.com) into nursing home care facility operations in the United States and abroad. The driving force behind this study concerns the significant care deficiencies in nursing homes, and how ehealth can ameliorate these conditions. Ehealth has never been a focus of study in nursing homes. Examining logistics relating to nursing homes and their residents may reveal which nursing homes would benefit from integrating ehealth as a referential resource.

Source: *J Med Syst*, ID:18461822

The impact of health information technology on collaborative chronic care management. **Author:** [Marchibroda JM](#) **Source:** *J Manag Care Pharm*, 14(2 Suppl): S3-11 2008


 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$4.00

Abstract: **BACKGROUND:** Chronic disease is a growing problem in the United States. More than 125 million Americans had at least 1 chronic care condition in 2000, and this number is expected to grow to 157 million by the year 2020.¹ Some of the challenges associated with current chronic care management approaches can be addressed through the use of health information technology (IT) and health information exchange. **OBJECTIVE:** To review the current challenges of chronic care management and explore how health IT and health information exchange efforts at the national, state, and local levels can be leveraged to address some of these challenges. **SUMMARY:** Efforts to effectively manage chronic care have been hampered by a number of factors, including a fragmented health care system and the need for more coordination across the health care setting; the lack of interoperable clinical information systems, which would help provide readily available, comprehensive information about the patient to those who deliver care, those

who manage care, and those who receive care, and finally, the current predominantly fee-for-service reimbursement system that rewards volume and fragmentation, and does not effectively align incentives with the goals of chronic care management. The introduction of health IT, including electronic health records and health information exchange, holds great promise for addressing many of the barriers to effective chronic care management, by providing important clinical information about the patient when it is needed, and where it is needed, in a timely, secure fashion. Having information from the care delivery process readily available through health IT and health information exchange at the national, state, and local levels supports key components of the chronic care management process, including those related to measurement, clinical decision support, collaboration and coordination, and consumer activation. **CONCLUSIONS:** Those engaged in chronic care management should seek to leverage health IT and health information exchange initiatives particularly at the local levels. Community-based initiatives have built social capital and trust across multiple stakeholders; enabled access to clinical data derived from the care delivery process that only resides locally; and in many cases aligned incentives around the mobilization of clinical information across care settings. All of these elements are critical to the long-term success of chronic care management. While there is good research regarding interdisciplinary care models, more research is still needed to identify policies, practices, and strategies for facilitating and building cooperation among those engaged in chronic care management, and those engaged in multi-stakeholder efforts involved in the exchange of clinical health information electronically.

Source:*J Manag Care Pharm*, ID:18331114

Web-based smoking-cessation programs: results of a randomized trial. **Author:** [Strecher VJ](#), [McClure JB](#), [Alexander GL](#), [Chakraborty B](#), [Nair VN](#), [Konkel JM](#), [Greene SM](#), [Collins LM](#), [Carlier CC](#), [Wiese CJ](#), [Little RJ](#), [Pomerleau CS](#), [Pomerleau OF](#) **Source:** *Am J Prev Med*, 34(5): 373-81 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: **BACKGROUND:** Initial trials of web-based smoking-cessation programs have generally been promising. The active components of these programs, however, are not well understood. This study aimed to (1) identify active psychosocial and communication components of a web-based smoking-cessation intervention and (2) examine the impact of increasing the tailoring depth on smoking cessation. **DESIGN:** Randomized fractional factorial design. **SETTING:** Two HMOs: Group Health in Washington State and Henry Ford Health System in Michigan. **PARTICIPANTS:** 1866 smokers. **INTERVENTION:** A web-based smoking-cessation program plus nicotine patch. Five components of the intervention were randomized using a fractional factorial design: high- versus low-depth tailored success story, outcome expectation, and efficacy expectation messages; high- versus low-personalized source; and multiple versus single exposure to the intervention components. **MEASUREMENTS:** Primary outcome was 7 day point-prevalence abstinence at the 6-month follow-up. **FINDINGS:** Abstinence was most influenced by high-depth tailored success stories and a high-personalized message source. The cumulative assignment of the three tailoring depth factors also resulted in increasing the rates of 6-month cessation, demonstrating an effect of tailoring depth. **CONCLUSIONS:** The study identified relevant components of smoking-cessation interventions that should be generalizable to other cessation interventions. The study also demonstrated the importance of higher-depth tailoring in smoking-cessation programs. Finally, the use of a novel fractional factorial design allowed efficient examination of the study aims. The rapidly changing interfaces, software, and capabilities of eHealth are likely to require such dynamic experimental approaches to intervention discovery.

Source:*Am J Prev Med*, ID:18407003

Sharing and management of EHR data through a national archive: experiences from Finland. **Author:** [Ruotsalainen P](#), [Doupi P](#), [Hämäläinen P](#) **Source:** World Hosp Health Serv, 43(4): 38-41 2007


 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$16.00

Abstract: The management of Electronic Health Records is a complex business ranging beyond just digital archiving. This article looks at the challenges involved, the different models for EHR data archiving and the impact on health-care provider systems, as well as expected benefits. Particular attention is paid to the Finnish system and its experiences.

Source:World Hosp Health Serv, ID:18405199

From user needs to system specifications: multi-disciplinary thematic seminars as a collaborative design method for development of health information systems. **Author:** [Scandurra I](#), [Häggglund M](#), [Koch S](#)

Source: J Biomed Inform, 41(4): 557-69 2008


 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: This paper presents a new multi-disciplinary method for user needs analysis and requirements specification in the context of health information systems based on established theories from the fields of participatory design and computer supported cooperative work (CSCW). Whereas conventional methods imply a separate, sequential needs analysis for each profession, the "multi-disciplinary thematic seminar" (MdTS) method uses a collaborative design process. Application of the method in elderly homecare resulted in prototypes that were well adapted to the intended user groups. Vital information in the points of intersection between different care professions was elicited and a holistic view of the entire care process was obtained. Health informatics-usability specialists and clinical domain experts are necessary to apply the method. Although user needs acquisition can be time-consuming, MdTS was perceived to efficiently identify in-context user needs, and transformed these directly into requirements specifications. Consequently the method was perceived to expedite the entire ICT implementation process.

Source:J Biomed Inform, ID:18394969

Establishing and harmonizing ontologies in an interdisciplinary health care clinical research environment.

Author: [Smith B](#), [Brochhausen M](#) **Source:** Stud Health Technol Inform, 134(): 219-33 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: Ontologies are being ever more commonly used in biomedical informatics. The paper provides a survey of some of these uses, and of the relations between ontologies and other terminology resources. In order for ontologies to become truly useful, two objectives must be met. First, ways must be found for the transparent evaluation of ontologies. Second, existing ontologies need to be harmonized. The authors argue that one key foundation for both ontology evaluation and harmonization is the adoption of a realist paradigm in ontology development. For science-based ontologies of the sort which concern us in the eHealth arena, it is reality that provides the common benchmark against which ontologies can be evaluated and aligned within larger frameworks. Given the current multitude of ontologies in the biomedical domain the need for harmonization is becoming ever more urgent. An example of such harmonization within the ACGT project is described, which draws on ontology-based computing as a basis for sharing clinical and laboratory data on cancer research.

Source:Stud Health Technol Inform, ID:18376049


Current status of national eHealth and telemedicine development in Finland. **Author:** [Reponen J](#), [Winblad I](#), [Hänninen P](#) **Source:** Stud Health Technol Inform, 134(): 199-208 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: This eHealth paper shows the results of a survey produced by FinnTelemedicum, Centre of Excellence for Telehealth at the University of Oulu and STAKES (National Research and Development Centre for Welfare and Health development in Finland) under assignment of the Finnish Ministry of Social Affairs and Health. The survey shows the status and trends of the usage of eHealth applications in the Finnish health care in 2005. The results are compared to an earlier survey made in 2003. The 2005 survey included all service providers in public and private medical services: hospital districts or central hospitals for secondary/tertiary care, primary health care centers and a sample of private sector service providers. The results show that the usage of eHealth applications has greatly progressed throughout the entire health care delivery system. The current wide utilization of the eHealth applications in Finnish health care forms a solid basis for developing future eHealth services. Finland has taken the initiative to build a national archive for electronic health data with citizen access by 2011.

Source: Stud Health Technol Inform, ID:18376047


ICW eHealth Framework. **Author:** [Klein K](#), [Wolff AC](#), [Ziebold O](#), [Liebscher T](#) **Source:** Stud Health Technol Inform, 134(): 177-90 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: The ICW eHealth Framework (eHF) is a powerful infrastructure and platform for the development of service-oriented solutions in the health care business. It is the culmination of many years of experience of ICW in the development and use of in-house health care solutions and represents the foundation of ICW product developments based on the Java Enterprise Edition (Java EE). The ICW eHealth Framework has been leveraged to allow development by external partners - enabling adopters a straightforward integration into ICW solutions. The ICW eHealth Framework consists of reusable software components, development tools, architectural guidelines and conventions defining a full software-development and product lifecycle. From the perspective of a partner, the framework provides services and infrastructure capabilities for integrating applications within an eHF-based solution. This article introduces the ICW eHealth Framework's basic architectural concepts and technologies. It provides an overview of its module and component model, describes the development platform that supports the complete software development lifecycle of health care applications and outlines technological aspects, mainly focusing on application development frameworks and open standards.

Source: Stud Health Technol Inform, ID:18376045


eHealth: Connecting Health Care and Public Health. **Author:** [Balas EA](#), [Krishna S](#), [Tessema TA](#) **Source:** Stud Health Technol Inform, 134(): 169-76 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: Reducing risks and improving benefits to the patients are requirements health professionals are faced with in their daily work. Furthermore, cuts in health funds and the competition for budgets require to enhancing efficacy and efficiency of health services. For meeting both challenges, adequate information and knowledge is needed, which can be gathered from documentation systems such as Electronic Health Records or Personal Health Records (PHRs), but also by performing dedicated clinical studies such as randomized controlled trials (RCTs) or cohort studies. Based on a literature analysis, quality of, and benefits from, RCTs have been analyzed. The benefits from connecting public health and PHRs are discussed in some details.

Source:*Stud Health Technol Inform*, ID:18376044

eHealth in Europe: from Vision to Reality. **Author:** [Iakovidis I](#), [Purcarea O](#) **Source:** *Stud Health Technol Inform*, 134(): 163-8 2008

 [Service Fee:](#) \$12.00 ; [Copyright Royalties:](#) \$18.00

Abstract: It is now 20 years that the European Union supports research and development of information and communication technologies based tools for healthcare (eHealth). From 1989 till today, funding has continually been increased, initiating new research, complementing Member State initiatives, strengthening European industrial competitiveness, and tackling new health and social problems related to the free movement of people in the EU. By now, many of the earlier visions and dreams have been realised or are close to wider implementation. Accordingly, the European Commission is now providing strong support also for market validation and implementation of eHealth solutions and services, and at the health policy level. Examples are the recent eHealth Action Plan, annual High Level Ministerial Conferences, an upcoming Recommendation on European eHealth Interoperability, or the Member States-led Large Scale Pilot on a pan-European core patient summary and ePrescribing. This will be complemented by a Lead Market Initiative identifying eHealth as a core future innovation field. Growing cooperation with counterparts in the USA and elsewhere underline that eHealth is becoming a global reality. A more than 40 year old vision is now closer to global reality for the better of all citizens.


Source:*Stud Health Technol Inform*, ID:18376043

eHealth for service delivery - special considerations for resource-challenged health systems. **Author:** [Kwankam SY](#) **Source:** *Stud Health Technol Inform*, 134(): 97-106 2008

 [Service Fee:](#) \$12.00 ; [Copyright Royalties:](#) \$18.00

Source:*Stud Health Technol Inform*, ID:18376037

Ubiquitous care in aging societies - a social challenge. **Author:** [Koch S](#) **Source:** *Stud Health Technol Inform*, 134(): 89-95 2008

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Abstract: The phenomenon of an aging society is frequently raised in scientific, public and political discussions in the developed world. It is well known that a number of challenges related to the demographic, economic and societal development will lead to increasing demands for health and social care. To cope with these challenges, effective delivery of health and social care will be more dependent on different technological solutions. The objective of this paper is to identify emerging technological solutions and to relate them to the expected changes occurring in an aging society. Results from an analysis of existing literature show that ubiquitous care in aging societies is merely a social than a technical challenge as it will require a redesign of today's healthcare processes. Supportive technologies have to be adapted to older people's needs, self-care processes and coping strategies, and to support new ways of healthcare delivery under close surveillance of patient safety, legal and ethical issues.

Source:*Stud Health Technol Inform*, ID:18376036


Ethical aspects of future health care: globalisation of markets and differentiation of societies - ethical challenges. **Author:** [Kluge EH](#) **Source:** *Stud Health Technol Inform*, 134(): 77-87 2008

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Abstract: The shift in health care to an aggregate corporate and distributed model dominated by electronic methods of diagnosis, record-keeping and communication spanning jurisdictional boundaries raises technical, social and paradigmatic issues. The technical issues concern the material natures of the tools, devices, procedures and protocols; the social issues gravitate around abstract matters like individual rights and models of responsibility within a corporate setting and accountability in inter-jurisdictional contexts; the paradigmatic issues centre in the question of how the rights and duties of traditional and direct health care translate into the mediated context of the globally expanded corporate model of eHealth and telemedicine. The present discussion presents a brief overview of the issues and sketches some of their implications for the evolution of contemporary health care.

Source:*Stud Health Technol Inform*, ID:18376035


EHR architectures - comparison and trends. **Author:** [Blobel B](#) **Source:** *Stud Health Technol Inform*, 134(): 59-73 2008

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Abstract: For meeting the requirements for high quality and safe of care as well as efficiency and productivity of health systems, latter have to move towards job sharing, communicating and cooperating structures. This paradigm change must be supported through sustainable and semantically interoperable architectures for health information systems, especially for Electronic Health Record (EHR) systems as the core application in any eHealth environment. Advanced system architectures are characterized as being highly distributed, component-oriented, model-based, service-oriented, knowledge-based, user-friendly, lawful and trustworthy, based on a unified development process, a harmonized ontology and reference terminologies. Existing and emerging approaches for EHR systems are to be compared using the Generic Component Model (GCM) as architectural reference. Any system can be assessed according to GCM dimensions: transparent domain representation, composition/decomposition behavior and reflection of the systems' viewpoints as well as their components' interoperability level. All those aspects have to be interrelated for real systems analysis, design, implementation, and deployment by that way enabling the migration of different EHR approaches on the basis of GCM.

Source:*Stud Health Technol Inform*, ID:18376034


Education in biomedical informatics and eHealth. **Author:** [ZvÄjrovÄj J](#) **Source:** *Stud Health Technol Inform*, 134(): 27-32 2008

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Abstract: The long-term effect of education in the field of biomedical informatics and eHealth on efficiency and quality of healthcare is discussed. Selected educational methods and tools are presented and their applications are shown.

Source:*Stud Health Technol Inform*, ID:18376031


eHealth and IMIA's Strategic Planning Process - IMIA conference introductory address. **Author:** [Murray P](#), [Haux R](#), [Lorenzi N](#) **Source:** *Stud Health Technol Inform*, 134(): 15-20 2008

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Abstract: The International Medical Informatics Association (IMIA) is the only organization in health and biomedical informatics which is fully international in scope, bridging the academic, health practice, education, and health industry worlds through conferences, working groups, special interest groups and publications. Authored by the IMIA Interim Vice President for Strategic Planning Implementation and co-authored by the current IMIA President and the IMIA Past-President, the intention of this paper is to introduce IMIA's current strategic planning process and to set this process in relation to 'eHealth: Combining Health Telematics, Telemedicine, Biomedical Engineering and Bioinformatics to the Edge', the theme of this conference. From the viewpoint of an international organization such as IMIA, an eHealth strategy needs to be considered in a comprehensive way, including broadly stimulating high-quality health and biomedical informatics research and education, as well as providing support to bridging outcomes towards a new practice of health care in a changing world.

Source:*Stud Health Technol Inform*, ID:18376029

Introduction into advanced eHealth -- the Personal Health challenge. **Author:** [Blobel B](#) **Source:** *Stud Health Technol Inform*, 134(): 3-14 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$18.00

Abstract: For improving quality and efficiency of health delivery under the wellknown burdens, the health service paradigm has to change from organization-centered over process-controlled to personal health. Established in connection to the already existing International Center for Telemedicine, the eHealth Competence Center in Regensburg has been dedicated to advance research, development, education and administration of comprehensive eHealth. In cooperation with internal and external partners, the Personal Health paradigm comprising of health telematics, telemedicine, biomedical engineering, bioinformatics and genomics is pushed ahead. The paper introduces the underlying paradigms, requirements, architectural framework and development processes for comprehensive service-oriented Personal Health interoperability chains.

Source:*Stud Health Technol Inform*, ID:18376028

Clinical applications and update on evidence-based medicine. **Author:** [Ghosh AK](#) **Source:** *J Assoc Physicians India*, 55(): 787-94 2007


 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: Despite an agreement on the definition of evidence-based medicine (EBM), there remains considerable debate around what constitutes an evidence-based care. In the current review, we discuss the clinical application of EBM including challenges in retrieving relevant medical information, critically reviewing the data and applying it to the patient. Also discussed are the techniques and issues surrounding patient-physician communication. Among the current updates in EBM we highlight the '5S' model of retrieving best evidence, use of hand held devices for point of care information and describe future directions and use of computer based decision support, ehealth, electronic medical records and evidence based management to improve quality of health care. Several methods are described to enhance risk communication and evidence-based practice.

Source:*J Assoc Physicians India*, ID:18290556


eHealth Blueprint outlines health information technology implementation in the United States. **Author:**

Source: *Optometry*, 79(2): 107-10 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Source: *Optometry*, ID:18286742

Translational research in medical informatics or from theory to practice. A call for an applied informatics journal. **Author:** [Lehmann CU](#), [Altuwaijri MM](#), [Li YC](#), [Ball MJ](#), [Haux R](#) **Source:** *Methods Inf Med*, 47(1): 1-3 2008

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Abstract: OBJECTIVE: To bridge the divide between health informatics 'bench research' and the application of informatics in clinical and health care settings. METHOD: Identifying weak points in translational activities, i.e. in the process from health informatics research outcomes to IT system design and information management in clinical practice. RESULTS AND CONCLUSIONS: The creation of a new peer-reviewed journal, designed to cultivate broad readership across health care, is suggested in order to communicate on informatics topics of translational interest and on the application of informatics principals. Such an applied informatics journal may appeal to practicing physicians, healthcare administrators and CIOs as well as medical informaticians. In a globalizing world with eHealth initiatives spanning across borders, such a journal should be an international effort. Close ties to the International Medical Informatics Association (IMIA) and to the journal *Methods of Information in Medicine* are suggested.

Source: *Methods Inf Med*, ID:18213421

Effects of using online narrative and didactic information on healthcare participation for breast cancer patients. **Author:** [Wise M](#), [Han JY](#), [Shaw B](#), [McTavish F](#), [Gustafson DH](#) **Source:** *Patient Educ Couns*, 70(3): 348-56 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: OBJECTIVES: To determine the effects of online narrative and didactic information on breast cancer patients' healthcare participation and the interaction effects of race. METHODS: Sample: 353 breast cancer patients (111 African Americans) using an eHealth program with narratives (audiovisual and text) and didactic information (text only). Measures: healthcare participation scale (0, 4 months), online information use. Analyses: hierarchical regression. RESULTS: Narrative (beta=0.123, p<0.01) and didactic (beta=0.104, p<0.05) information use had independent and positive effects on healthcare participation. Effects of both were significantly greater for African Americans. CONCLUSIONS: Findings are consistent with and advance prior research on online learning processes and outcomes for breast cancer patients: (1) benefits accrue with using a variety of online learning tools; (2) African Americans use and benefit more from online narrative and didactic information than do Caucasians. PRACTICE IMPLICATIONS: eHealth programs should provide both didactic and narrative information-especially for African Americans and might consider making greater use of interactive and audiovisual formats. As patients increasingly use of the web for cancer information, clinicians should provide lists of web high quality resources that provide both narrative and didactic information.

Source: *Patient Educ Couns*, ID:18201859

Focus on: eHealth for the consumer-patient. **Author:** [Winter G](#) **Source:** *Aust J Rural Health*, 16(1): 49 2008

Source: *Aust J Rural Health*, ID:18186724


Feasibility of a mobile phone-based data service for functional insulin treatment of type 1 diabetes mellitus patients. **Author:** [Kollmann A](#), [Riedl M](#), [Kastner P](#), [Schreier G](#), [Ludvik B](#) **Source:** J Med Internet Res, 9(5): e36 2007

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: BACKGROUND: Patients with type 1 diabetes mellitus (DM1) have to be active participants in their treatment because they are inevitably responsible for their own day-to-day-care. Availability of mobile Internet access is advancing rapidly and mobile phones are now widely available at low cost. Thus, mobile phones have the potential to assist in daily diabetes management and to enable a telemedical interaction between patients and health care professionals. OBJECTIVE: The aim of the study was to evaluate the feasibility and user acceptance of a mobile phone-based data service to assist DM1 patients on intensive insulin treatment. METHODS: A software application called Diab-Memory (based on Java 2 Mobile Edition) has been developed to support patients when entering diabetes-related data with synchronization to the remote database at the monitoring center. The data were then processed to generate statistics and trends, which were provided for the patient and his/her health care professional via a Web portal. The system has been evaluated in the course of a clinical before-after pilot trial. Outcome measures focused on patients' adherence to the therapy, availability of the monitoring system, and the effects on metabolic status. General user acceptance of the system was evaluated using a questionnaire. RESULTS: Ten patients (four female) with DM1 participated in the trial. Mean age was 36.6 years (+/- 11.0 years) and prestudy glycated hemoglobin (HbA(1c)) was 7.9% (+/- 1.1%). A total of 3850 log-ins were registered during the 3 months of the study. The total number of received datasets was 13003, which equates to an average of 14 transmitted parameters per patient per day. The service was well accepted by the patients (no dropouts), and data transmission via mobile phone was successful on the first attempt in 96.5% of cases. Upon completion of the study, a statistically significant improvement in metabolic control was observed (HbA(1c): prestudy 7.9% +/- 1.1% versus poststudy 7.5% +/- 0.9%;P= .02). While there was a slight decrease in average blood glucose level (prestudy 141.8 mg/dL +/- 22.5 mg/dL vs poststudy 141.2 mg/dL +/- 23.1 mg/dL;P= .69), the difference was not statistically significant. CONCLUSION: The results of the clinical pilot trial indicate that this proposed diabetes management system was well accepted by the patients and practical for daily usage. Thus, using the mobile phone as patient terminal seems to provide a ubiquitous, easy-to-use, and cost efficient solution for patient-centered data acquisition in the management of DM1. To confirm the promising results of the pilot trial further research has to be done to study long-term effects on glycemic control and cost-effectiveness.

Source: J Med Internet Res, ID:18166525

Relations between Internet use, socio-economic status (SES), social support and subjective health. **Author:** [Wangberg SC](#), [Andreassen HK](#), [Prokosch HU](#), [Santana SM](#), [Sørensen T](#), [Chronaki CE](#) **Source:** Health Promot Int, 23(1): 70-7 2008

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$31.00

Abstract: This study aimed to explore relations between Internet use, socio-economic status (SES), social support and subjective health. Participants were from representative samples between 15 and 80 years of age from seven different European countries. Two different survey datasets were used: (i) eHealth trends (eHT; N = 7934) and (ii) the European social survey (ESS2; N = 11248). Internet users who had used the Internet for health purposes were compared with Internet users who had not used it for health purposes. Structural equation modelling was used to assess the relationships between SES, Internet use, social support and subjective health. Use of other media was compared to Internet use in relation to social support and subjective health. Internet use was found to be more closely related to social support and subjective health than use of other media. Internet use was also found to be a plausible mediator between SES and subjective health, especially through interacting with social support.

Source:*Health Promot Int*, ID:18083686

eToolkits:improving pain management. **Author:** [Heller LR](#), [Gospodarowicz M](#), [Jadad AR](#) **Source:** *J Pain Palliat Care Pharmacother*, 21(3): 67-70 2007

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: A collaboration of the Centre for Global eHealth Innovation of the University Health Network, the International Union against Cancer (UICC) eUICC initiative, Purdue Pharma and Mundipharma with partners in Latin America and leaders in the management and study of pain worldwide is described. This project evaluates methods of sharing and adapting pain management approaches in models of the diffusion of innovation to bridge the 'know-do' gap in the management of pain and will provide information on the costs, limitations and benefits of efforts to adapt the resources for use in a variety of cultural, geographic and linguistic contexts.

Source:*J Pain Palliat Care Pharmacother*, ID:18032360

Poor eHealth literacy and consumer-directed health plans: a recipe for market failure. **Author:** [Miller VM](#) **Source:** *Am J Bioeth*, 7(11): 20-2; discussion W1-2 2007

Source:*Am J Bioeth*, ID:18027293

Evaluation of shared EHR services in primary healthcare centers and their rural community offices: the twister story. **Author:** [Chronaki C](#), [Kontoyiannis V](#), [Mytaras M](#), [Aggourakis N](#), [Kostomanolakis S](#), [Roumeliotaki T](#), [Kavlentakis G](#), [Chiarugi F](#), [Tsiknakis M](#) **Source:** *Conf Proc IEEE Eng Med Biol Soc*, 2007(): 6422-5 2007

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: Ten years after primary, secondary, and tertiary healthcare facilities in Crete were connected in HYGEIAnet, one of the first regional health information networks worldwide, the Twister project addressed the practical challenge of delivering integrated eHealth services to remote healthcare facilities in Crete and the south Aegean. A hybrid network infrastructure comprising terrestrial broadband, wireless, and satellite segments provided connectivity among distributed healthcare organizations. A fast-track methodology of continuous training and evaluation was used to encourage the wide adoption of EHR services in primary healthcare centers and their remote community offices, eTraining in prehospital emergency management, and medical collaboration. For the evaluation of Twister, health professionals using EHRs and citizens visiting the healthcare facilities provided their attitudes and perceptions on eHealth. Although eHealth is viewed differently by citizens and health professionals, both groups consider the EHR as an important part of the daily medical practice. However, continuous training, practical incentives, and awareness initiatives are necessary to increase the use of EHRs and the social embedding of eHealth in rural areas.

Source:*Conf Proc IEEE Eng Med Biol Soc*, ID:18003492

Regulations and standards for wireless applications in eHealth. **Author:** [Chadwick PE](#) **Source:** *Conf Proc IEEE Eng Med Biol Soc*, 2007(): 6171-4 2007

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: Many of the implementations of eHealth require some form of telecommunications facility. Although wired networks can be applicable, there are many areas in which a wireless communications facility is required. The particular method of wireless communication is dependent upon the application: for example, wireless programming of an implantable device such as a pacemaker has vastly different requirements to those of a wireless alarm for a blood oxymeter. However, wireless devices have to exist in an electromagnetically shared environment, and it is therefore necessary for the standards and regulations applying to such devices to be so designed as to optimise both the efficient use of the radio spectrum, and the usefulness of the wireless link in the context of eHealth. Such wireless devices currently include the use of such general wireless technologies as Bluetooth, cellular telephony, and RFID, as well as those using radio spectrum shared on a secondary basis intended for communication with medical devices. This paper briefly reviews the current situation regarding such standards, including the potential reliability and the degree of subjectivity to interference, and looks to the probable areas of future development in radio standards that will be required to meet the increasing demands of the technologies inherent in the growth of eHealth.

Source: *Conf Proc IEEE Eng Med Biol Soc*, ID:18003429

A customizable mobile tool for supporting health behavior interventions. **Author:** [Koskinen E](#), [Salminen J](#)


Source: *Conf Proc IEEE Eng Med Biol Soc*, 2007(): 5908-11 2007

 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: Recorded self-observations on a regular basis is an important component in many health behavior interventions. Using information and communication technologies (ICT) and especially mobile eHealth applications is a promising way of improving user-friendliness and possibly the overall effectiveness of self-monitoring. Mobility as such brings the added value of continuous availability and timely information access. One additional benefit of ICT based solutions is the possibility for various types of customization, allowing support for a wider set of application requirements than was originally planned, and meeting changing needs and targets of individuals, groups or larger user segments. In this paper, we present a customizable mobile application for recording and managing health related self-observations, Wellness Diary, and the ideas and technical solutions for supporting tailoring of the application. The main idea is to allow end-users to freely change the data model in the application, and customize related data presentations. This work has been done in Nuadu ITEA project, as well as further work where the effectiveness of the mobile tool and other ICT technologies will be investigated in a controlled trial in Finland. We'll also present shortly a counterpart for the mobile application, a web service that should bring some added value for the end user.

Source: *Conf Proc IEEE Eng Med Biol Soc*, ID:18003358

Health information exchange policy and evaluation. **Author:** [Marchibroda JM](#) **Source:** *J Biomed Inform*, 40(6 Suppl): S11-6 2007


 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: Concerns about the quality, safety, and cost of healthcare have driven the nation to increase its focus on this issue. A number of states are moving forward-in parallel with federal efforts-to develop and adopt policies for improving health and healthcare through health information technology and electronic health information exchange. Based on the eHealth Initiative's experience providing technical assistance to more than 20 states, and its work related to its coalition of more than 250 state, regional and community-based health information exchange initiatives and organizations, the most difficult challenges facing these initiatives and organizations today is that related to assessing the value of services that emerge from the health information exchange to various stakeholders groups such as providers, payers, and employers, and converting

those value assessments to business plans that promote and assure sustainability for these initiatives. The combination of increased federal and state focus and funding and the pace at which regional and community-based health information networks are developing, along with the identification of value and sustainability as some of the most difficult challenges experienced by these efforts, all point to the significant need for evaluation. The most critical evaluation questions focus on the impact of health information technology and health information exchange on quality, safety, efficiency, the value of such efforts for various stakeholders, and assessment of how grant programs can be designed to support positive impact, value, and a sustainable business model, so that efforts continue when the grant funds are fully expended.

Source: *J Biomed Inform*, ID:17981099

Feasibility of a telemedicine framework for collaborative pacemaker follow-up. **Author:** [Kollmann A](#), [Hayn D](#), [Garc  a J](#), [Trigo JD](#), [Kastner P](#), [Rotman B](#), [Tscheliessnigg K](#), [Schreier G](#) **Source:** *J Telemed Telecare*, 13(7): 341-7 2007

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$15.00

Abstract: We propose a telemedicine framework for remote and manufacturer independent pacemaker (PM) follow-up. The main goal is to provide the caregiver at the point-of-care with an efficient screening method to identify possible malfunction of the pacing system in collaboration with the specialist at the PM clinic. The concept was evaluated in a clinical trial on 44 patients (mean age 76 years). A total of 62 electrocardiogram (ECG) recordings were transmitted using a mobile PM follow-up unit. Using the automatic classification algorithm, 32 PMs were classified as 'OK' and eight PMs were classified as 'not OK'. In four cases a prediction regarding the working status of the PM was not possible. The signal processing classification was confirmed by expert classification (manual review of the ECG). The results indicate that the proposed PM follow-up concept has the potential to work as an efficient screening method and may spare a significant number of patients the burden of having to travel to specialized PM clinics.

Source: *J Telemed Telecare*, ID:17958935

Web-based asynchronous teleconsulting for consumers in Colombia: a case study. **Author:** [Valenzuela JJ](#), [Arguello A](#), [Cendales JG](#), [Rizo CA](#) **Source:** *J Med Internet Res*, 9(4): e33 2007


 **Service Fee:** \$12.00 ; **Copyright Royalties:** Unknown

Abstract: BACKGROUND: Fourteen years after the reform to Colombia's health system, the promises of universality, improved equity, efficiency, and better quality of care have not materialized. Remote areas remain underserved and access to care very limited. Recognizing teleconsultation as an effective way to improve access to health care and health information, a noncommercial open-access Web-based application for teleconsultation called Doctor Chat was developed. OBJECTIVE: The objective was to report the experience of the Center for Virtual Education and Simulation eHealth (Centro de Educaci  n Virtual y Simulaci  n e-Salud) with open-access Web-based asynchronous teleconsultation for consumers in Colombia. METHODS: A teleconsultation service in Spanish was developed and implemented in 2006. Teleconsultation requests were classified on three axes: (1) the purpose of the query, (2) the specialty, and (3) the geographic area of the query. Content analysis was performed on the free-text queries submitted to Doctor Chat, and descriptive statistics were gathered for each of the data categories (name, email, city, country, age, and gender). RESULTS: From September 2006 to March 2007, there were 270 asynchronous teleconsultations documented from 102 (37.8%) men and 168 (62.2%) women. On average, 1.4 requests were received per day. By age group, the largest number of requests (n = 80; 30%) were from users 24-29 years, followed by users (n = 66; 24%) 18-23 years. Requests were mainly from Colombia (n = 204; 75.6%) but also from Spain (n = 17;

6.3%), Mexico (n = 11; 4.1%), and other countries. In Colombia, 137 requests (67.2%) originated in Bogotá, the nation's capital, 25 (12.4%) from other main cities of the country, 40 (19.7%) from intermediate cities, and 2 (0.7%) from remote areas. The purpose of the majority of requests was for information about symptoms, health-related problems, or diseases (n = 149; 55.2%) and medications/treatments (n = 70; 25.9%). By specialty, information was most requested for gynecology and obstetrics (n = 71; 26%), dermatology (n = 28; 10%), urology (n = 22; 8%), and gastroenterology (n = 18; 7%), with anesthesiology, critical care, physical medicine and rehabilitation, and pathology being the least requested (n = 0; 0%). Overall, sexual and reproductive health (n = 93; 34%) issues constituted the main query subject. The average time to deliver a response was 120 hours in 2006 and 59 hours in 2007. Only 19 out of 270 users (7%) completed a survey with comments and perceptions about the system, of which 18 out of 19 (95%) corresponded to positive perceptions and 1 out of 19 (5%) expressed dissatisfaction with the service. **CONCLUSION:** The implementation of a Web-based teleconsulting service in Colombia appeared to be an innovative way to improve access to health care and information in the community and encouraged open and explicit discussion. Extending the service to underserved areas could improve access to health services and health information and could potentially improve economic indicators such as waiting times for consultations and the rate of pregnancy among teenagers; however, cultural, infrastructural, and Internet connectivity barriers are to be solved before successful implementation can derive population-wide positive impacts.

Source: *J Med Internet Res*, ID:17954469


eHealth recruitment challenges. **Author:** [Thompson D](#), [Canada A](#), [Bhatt R](#), [Davis J](#), [Plesko L](#), [Baranowski T](#), [Cullen K](#), [Zakeri I](#) **Source:** *Eval Program Plann*, 29(4): 433-40 2006

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: Little is known about effective eHealth recruitment methods. This paper presents recruitment challenges associated with enrolling African-American girls aged 8-10 years in an eHealth obesity prevention program, their effect on the recruitment plan, and potential implications for eHealth research. Although the initial recruitment strategy was literature-informed, it failed to enroll the desired number of girls within a reasonable time period. Therefore, the recruitment strategy was reformulated to incorporate principles of social marketing and traditional marketing techniques. The resulting plan included both targeted, highly specific strategies (e.g., selected churches), and more broad-based approaches (e.g., media exposure, mass mailings, radio advertisements). The revised plan enabled recruitment goals to be attained. Media appeared to be particularly effective at reaching the intended audience. Future research should identify the most effective recruitment strategies for reaching potential eHealth audiences.

Source: *Eval Program Plann*, ID:17950873

Multidisciplinary eHealth survey evaluation methods. **Author:** [Karras BT](#), [Tufano JT](#) **Source:** *Eval Program Plann*, 29(4): 413-8 2006


 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: This paper describes the development process of an evaluation framework for describing and comparing web survey tools. We believe that this approach will help shape the design, development, deployment, and evaluation of population-based health interventions. A conceptual framework for describing and evaluating web survey systems will enable the developers of health interventions to identify, select, and use the most appropriate and relevant survey tools. The primary contributors included survey methodologists, computer scientists, informaticians, technical communications specialists, educators, evaluators, clinical practitioners, and health services researchers, who together developed a comprehensive ontology to describe

the electronic survey domain. This paper will describe the survey ontology development process and detail lessons learned in the creation of the web survey system evaluation framework.

Source:*Eval Program Plann*, ID:17950870

A framework for evaluating eHealth research. **Author:** [Dansky KH](#), [Thompson D](#), [Sanner T](#) **Source:** *Eval Program Plann*, 29(4): 397-404 2006


 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: Health care is in the midst of a consumer-oriented technology explosion. Individuals of all ages and backgrounds have discovered eHealth. But the challenges of implementing and evaluating eHealth are just beginning to surface, and, as technology changes, new challenges emerge. Evaluation is critical to the future of eHealth. This article addresses four dimensions of eHealth evaluation: (1) design and methodology issues; (2) challenges related to the technology itself; (3) environmental issues that are not specific to eHealth but pose special problems for eHealth researchers; and (4) logistic or administrative concerns of the evaluation methodology selected. We suggest that these four dimensions must be integrated to provide a holistic framework for designing and implementing eHealth research projects, as well as for understanding the totality of the eHealth intervention. The framework must be flexible enough to adapt to a variety of end users, regardless of whether the end user is a healthcare organization, a for-profit business, a community organization, or an individual. The framework is depicted as a puzzle with four interlocking pieces.

Source:*Eval Program Plann*, ID:17950868

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An introduction to methodological challenges in the evaluation of eHealth research: Perspectives from the Health e-Technologies Initiative. **Author:** [Ahern DK](#), [Patrick K](#), [Phalen JM](#), [Neiley JD](#) **Source:** *Eval Program Plann*, 29(4): 386-9 2006

 **Service Fee:** \$12.00 ; **Copyright Royalties:** \$37.00

Abstract: In February 2002 the Health e-Technologies Initiative (HETI), a program office of the Robert Wood Johnson Foundation((R)), was created to advance discovery of scientific knowledge regarding the effectiveness of interactive eHealth applications. This article is the introduction to a series of seven articles written by grantees of HETI which address challenges, lessons learned, and proposed solutions as researchers implement eHealth projects. From this body of work it is clear that the overall process of conducting evaluation research in eHealth requires careful and detailed planning, recognition of the heightened sensitivity of IRBs, and institutions around the electronic collection and communication of personal health information, and a combination of tenacity and creativity to address the inevitable thorny methodological challenges to eHealth research. Use of established guidelines to help standardize the evaluation process, where feasible, is recommended.

Source:*Eval Program Plann*, ID:17950866