

Social and health care meets digitalization – challenges and possibilities

This issue of the Finnish Journal of eHealth and Welfare consists of the articles presented at the research days organized by the Social and Health Informatics Association. Most of the research and development projects are targeted at sections of the Information Strategy for Social and Health Care 2020, such as electronic services for citizens, information systems used by health care professionals and their usability and the re-use of data. The usability of information systems used by both health care professionals and customers, the introduction of these systems and recording data using common data structures are presented as challenges in the results of the studies.

Citizens' activity in the maintenance of their wellbeing and increasing electronic services are key points that have been highlighted in recent years. According to the literature review presented in the article "The experiences of elderly people regarding the use of health care electronic services and utilizing experiences in developing services" the experiences of elderly people of the use of electronic services are mostly positive. Some of the factors affecting the use of electronic services are individual, but most often the problems are related to the usability of the systems, applications and aids such as the layout of the website or application and concerns about information security.

It is not enough only to increase the number of electronic services; patients also need more information about them. In addition, the support of health care professionals is required to use them, as stated in the article "The role of healthcare personnel in motivating and guiding patients in the use of eHealth services". According to that study patients had spontaneously used some electronic health services to seek information. Most patients wished for a more active approach on the part of health care professionals in informing people about the services and guiding and encouraging them in their use.

The introduction of electronic services also has to be successful. Good practices in the introduction of elec-

tronic services are described in the article "Good practices of leadership in introduction of electronic self-care services". Communication of a clear vision and goals, support from leadership, effective information about the introduction of services and their benefits and the involvement of professionals and experts in service design are examples of good practices. According to the results of the study good practices in the introduction of services were not very widely used in social and health care organizations.

Health care professionals should have at their disposal information systems that support their work and its operational processes. Including health care professionals in developing and evaluating different kinds of services could result in information systems better adapted to their work. The participation of the end users in the development of the patient record systems is essential to be able to improve the systems to meet these end users' demands and to better match their work tasks as stated in the article "Physicians and nurses in developing better information systems: capable and enthusiastic end users underused". According to the research less than half of the respondents had participated in development work although most of them would have been willing to take part in some way. Participating in development work should be a normal part of the end users' work and health care organizations should recognize the significance of such participation.

Health care professionals are also able to evaluate the usability of information systems. The article "Physicians as usability evaluators – first aid for poor EHR usability?" describes how doctors evaluated the usability of a patient record system using Nielsen's heuristics. According to the results the doctors detected different kinds of problems with usability: problems influencing patient safety, problems significantly complicating work tasks and cosmetic problems. The results show that the participation of doctors in the evaluation of usability in addition to the actual usability evaluators brings additional value to the evaluation because the doctors view

the systems from the perspective of practical clinical work.

The results of a questionnaire about the use of a video consultation service are presented in the article "Launching a video consultation service for child psychiatry in Pohjois-Savo Region: opinions and experiences of the trained target groups". The respondents had taken part in education in the use of the service. The respondents thought that video consultation is a good idea but they had no need to use the service in practice. They also hoped for additional education and reminders about the service. Technical problems had stopped some respondents from using the service although most of the respondents reported they could use the service if necessary. According to the results customer orientation, education and constant promotion of the use of the service should be paid attention in the introduction of new services.

The preliminary results of evaluating the usability of the new thermal imaging method are presented in the article "Thermal imaging in skin trauma evaluation: observations by CAT S60 mobile phone". According to the preliminary results thermal imaging with CAT S60 might help to evaluate skin lesion severity and help in monitoring skin lesion.

The use of uniform data structures is a premise for the use and availability of data in a single organization as well as regionally and nationally. The article "Structures for Recording Patient Care Data – Nursing Discharge Summary" describes how recording the nursing discharge summary is carried out compared to the instructions of recording data. According to the study, although the national defined data structures of the nursing discharge summary was used well, its use was not systematic within the same summary. Regionally there are differences in the use of the content titles. Moreover, the summaries of different professionals revealed the use of overlapping data structures. The results showed that the electronic information systems of health care should be developed to guide professionals in producing summaries according to the data structures defined. Health care professionals should also be trained in the use of the data structures defined.

Data from various repositories should be available for use in patient and client work and in management and research. Prescriptions can be tracked on the basis of the data recorded in the National Prescription Centre. Now for the first time in Finland the total number of prescriptions has been ascertained. The results are presented in the article "Following prescriptions is possible based on data in the National Prescription Centre". In the national tracking technical interference was a daily occurrence and resulted in making written and telephone prescriptions that were transferred to electronic prescriptions at the pharmacy. Over half of these were written prescriptions had been made because of technical interference.

Different kinds of decision support systems have long been developed to support health care professionals' decision-making. The article "The Digi-NewB project for preterm infant sepsis risk and maturity analysis" describes a project aimed at developing a decision support system for the early detection of sepsis and for the evaluation of infant maturity. At the moment a database is currently being collected on the project of information on 750 premature babies. The information will include physiological signals, videos and clinical observations.

An applicable theoretical framework for research into various topics of social and health informatics is the process model for information management. In the article "Utilizing the process model for information management in social and health informatics studies" states that research in social and health informatics should focus more on the phases of information use and adaptive behaviour. In addition to qualitative research, quantitative and register-based studies are needed.

Digitalization should also support the renewal of the structures of social and health care. The article "Scenarios for Occupational Health Services - case project Työke" presents a project in which new alternative scenarios of the future of occupational health services are drafted to support the reform of social and health care structures. The new demands of working life impose requirements for changes in occupational health services both structurally and functionally. The struc-

tural changes are needed due to the reform of social and health care. Digitalization, robotics and globalization change working life and impose new demands for expertise among professionals and clients of occupational health services.

Renewal of the structures of social and health care based on pediatric patients' experiences is presented in the article "Lapsus-research project: perspectives of pediatric patients' experiences". The goal of the Lapsus-project is to support the consideration of experiences of the families of pediatric patients when building new hospitals and improving health care services. The methods developed in the project and the experiences gathered in the research help to understand what kinds of things are considered important and valuable and how experience data can be collected and utilized to improve the services of a children's hospital.

According to the studies described in this issue, the digitalisation opportunity is highlighted by information systems that support healthcare professionals' work and related operational processes, and the right data is in the right place at the right time. To support decision-making in health care, various decision support systems are being developed. Citizens and healthcare professionals make active use of electronic services implemented in accordance with good practice. The data in the data repositories is used in the studies.

According to these studies we have shaped our work processes by developing electronic services. What will be the future when the use of artificial intelligence or robotics becomes a reality?

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