

SWEDISH SOCIETY OF NURSING

eHEALTH

A STRATEGY FOR NURSES



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PREFACE

The Swedish healthcare system has undergone major structural changes in recent decades. There has been a considerable reduction in the number of hospital beds as well as a shift towards more home care, which to a great extent affects patients¹, their significant others and health care professionals. Due to political changes there are more private health care providers in the Swedish health care sector today. This means more options for individual patients, but at the same time new demands on a personal level. A clearly stated political aim is for patients to assume greater responsibility for their own health and well-being. To support this development, the concept of eHealth has been launched, which includes, among other things, the use of digital medium to facilitate individuals' contact and communication with the health care services. Since the large amount of information, of varying quality, about diseases and illness is available on internet and influences today's health care sector nurses² and other professionals are faced with new demands and responsibilities.

To attain the national goals for eHealth, politicians and decision-makers must assume responsibility for management, infrastructure and financing. Today's digital systems in the health care sector have weaknesses that constitute a risk to patient safety, for example in the patient record system. Furthermore there is a lack of knowledge and competence about eHealth in health care organizations as well as in nurses' education on bachelor and master degree. The Swedish Society of Nursing works proactively to improve this situation.

The aim of this strategy is to highlight the preconditions and qualification requirements necessary for implementing eHealth that provides added value for patients and their significant others. The term eHealth is used instead of the more technical term nursing informatics in order to highlight health as an outcome of nursing care supported by digital technology. The strategy describes nurses' responsibility for creating a relationship with patients and their significant others based on a humanistic view of the person when digital media are employed. It also underlines the importance of nurses' active involvement in the efforts to develop eHealth services in a way that supports nursing care.

It is hoped that this strategy will lead to increased knowledge of eHealth in nursing and contribute to a lively discussion in the areas of nursing care and education. eHealth is currently undergoing a rapid development and the society considers it important to discuss how digital technology can and should be utilised in order to achieve person-centred care. As the present strategy is the very first, we welcome any views and suggestions for improvement.

Stockholm November 2012

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President, Swedish Society of Nursing

¹ Here, and in the following, the term *patients* refers to persons who receive professional care irrespective of health services or care provider.

² Here, and in the following, the term nurse refer to registered nurses. In Sweden registered nurses has at least a bachelor degree.

Nursing in the care services

Nursing care' means actions and interventions undertaken to persons in the areas of caring for the old, social and support services for disability as well as in health care in accordance with current legislation. Nursing is central in all forms of care. (The Board's terminology database National Swedish Board of Health and Welfare).

Nursing informatics

Nursing informatics covers science and practice, where the practical application of information and knowledge in the area of nursing care is integrated with ICT for the promotion of health among individuals, families and social groups worldwide. (International Medical Informatics Association – Nursing Special Interest group in Helsinki 2009).



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THE STRATEGY AND CONCEPT OF eHEALTH – AREAS OF APPLICATION

Nurses play an important role in providing nursing within the health and social care. The present strategy outlines nurses' role in the development of eHealth. The strategy concerns nurses in all areas of clinical practice, management and administration as well as their colleagues within education and research. The strategy can be used:

- to provide discussion support in the development of clinical practice and other professional contexts, nationally as well as internationally
- to guide the design of curricula in nursing education at bachelor and master degree
- in dialogue with employers to identify nurses' need for education and professional development
- to provide inspiration for research and development projects in e-Health with focus on nursing care.

What is eHealth?

The concept of eHealth is based on the World Health Organization's (WHO) definition of health. The prefix "e" indicates that digital technology can facilitate the achievement of high quality, equal and accessible health care for all members of society. According to the WHO definition (2011a), eHealth is the uses of digital technology to, among other things, treat patients, conduct research, educate students, track diseases and monitor public health. The EU commission has adopted eHealth as an umbrella term to denote digital technology applications for the improvement and development of health at both individual and societal level. The concept covers self-care, social care, health care as well as health care providers' interactions with patients, their significant others and other stakeholders (EU 2013).

In 2010, the concept of eHealth gained recognition in Sweden when the name of a national strategy on ICT in health and social care changed to *National eHealth – the strategy for accessible and secure information in health and social care* (Ministry of Health and Social Affairs 2010). The strategy is intended to improve information handling for individuals, health care personnel and decision-makers within health care and the social services. It is stated in the strategy document that eHealth encompasses all information and communication technology (ICT) within health care. Examples of eHealth services are *The 1177 Healthcare Telephone Helpline, 1177.*



se *Healthcare online*, *The National Patient Summary (NPÖ)*, *My Healthcare Contacts* and *The Handbook of Healthcare* (for more examples, see Summary of facts no. 1). The guiding principles of national eHealth are deployment, use and benefit (Ministry of Health and Social Affairs 2010). Responsibility for ensuring that the national targets are met lies with a number of stakeholders such as politicians, education and research institutions as well as product developers. All health care professionals have a responsibility to contribute to the development of eHealth based on their own professional perspective.

Development of eHealth

The health care service is strongly dependent on knowledge and information. Digital technology, usually in the form of information and communication technology (ICT), constitutes a vital and integrated part of all health care. Its use will increase in the future both in direct patient care and in communication between different stakeholders and organizations, such as administration, quality improvement and research. ICT will mainly be employed in the following areas: 1) to facilitate the transfer, handling and storage of data, 2) to support clinical decisions and 3) to facilitate care from a distance (Black et al. 2011).

Nurses are required to remain updated and be prepared to face and take part in the development of eHealth based on a professional perspective. The development of information technology services in society, such as social media, already impacts on health care. In 2010, there were over five billion users of wireless telecommunication and the coverage was 85 percent of the global population (WHO 2011b).

Access to information increases patients' opportunities to assume responsibility for their own health. An example is patients suffering from diabetes and high blood pressure who carry out self tests in combination with health information and feedback via telemedical devices (Wakefield et al. 2012). Such a development leads to health care professionals assuming a supportive and guiding role in relation to a more knowledgeable and well-informed patient.

In their efforts to provide person-centred care (see Summary of facts no. 2) for patients and their significant others, nurses are faced with new needs and demands. The development of eHealth implies benefits for the patient, such as increased flexibility and the possibility to influence present and future health and social care provision, but also an increased risk of infringing patients' integrity.

Information and communication technology (ICT)

This part of IT is based on communication between people. Distance learning is built on the use of ICT.

Social media

Areas on the Internet where the content is created by the users with the aim of establishing, maintaining and developing contacts and relationships by means of exchange of information. Examples of social media are blogs, Internet forums, websites for video clips, chat programmes and web-based photo diaries.

SMS

Short Message Service
– via a mobile phone.

MMS

Multimedia Messaging Service
– a development of SMS for sending images etcetera.

Smart phone

A small portable touchscreen mobile phone with some computer applications.

Tablet

A larger, more powerful touchscreen device than a smart phone.

Cloud service

External server space available through the Internet. Customers can rent space from companies, thereby avoiding the need to invest in expensive internal solutions.

Telemedicine

Distance medical care. It can be as simple as a telephone consultation or as complex as the use of a robot or satellite technology (<http://en.wikipedia.org/wiki/Telemedicine>).

eHEALTH FOR NURSES

Nursing care is provided at an individual level with the aim to provide the best and safest care possible. The nurse–patient encounter forms the basis of a person-centred care. eHealth is a tool that can be employed to support person-centred care. To this end, it needs to be integrated in nurses' professional practice, irrespective of role, function and area of activity.

eHealth can support health care processes in order to ensure quality, patient safety, a person-centred approach and continuity in the care process. Nurses frequently have a coordinating function in the organization, which among other things includes the handling of health-related information. This information should be available in the right format, on the right occasion and to the right person in the care process as a basis for decision-making, provision and evaluation of health care. A prerequisite for eHealth to develop in that direction and to meet the patient's care needs is that nurses, irrespective of their role, contribute with their knowledge and commitment.

eHealth services for citizens

- 1177.se Healthcare online
- 1177 Healthcare Telephone Helpline
- Help and support line
- Your Online Medical Record
- My Healthcare Services
- My Healthcare Contacts
- UMO.se – the online youth friendly clinic

e-Health services developed by the Center for eHealth in Sweden (www.cehis.se 2012).

eHealth services for health and social care staff

- Child Health Data
- EiRA (Effective Information Retrieval and Acquisition)
- Electronic Birth Registration
- Electronic Medical Certificate
- e-referral
- The Anti-Infection Tool
- National Prescription Data Base (NOD)/Pascal
- The National Patient Summary (NPÖ)
- Nitha (National IT support for event analysis)
- Coordinated electronic patient record
- Swedish Drug Information Database (SIL)
- Standardised care plans
- The Handbook of Healthcare

Summary of facts no. 1

Areas targeted for eHealth

eHealth influences many aspects of health care such as structure, processes and outcome, encompassing prerequisites, delivery, follow up and development. The Swedish Society of Nursing's eHealth Strategy is divided into target areas based on nurses' perspective and the National eHealth Strategy (Ministry of Health and Social Affairs 2010). These areas are: *Information management, Communication and collaboration, Core ethical values, Learning and competence, Leadership and management, Technical support and Research and development*. Each area contains a number of specified targets within nurses' areas of responsibility that must be met in order for eHealth to benefit patients and their significant others. This in turn requires that politicians, decision-makers and care providers contribute with the necessary eHealth infrastructure and other support.

Information management

Targets:

- nurses must have adequate access to information and decision support when providing care
- nurses need to contribute to the development of the structure and terminology used in the electronic patient record
- nursing documentation should be structured in an appropriate way and employ standardised terms representing the content of nursing in accordance with the nursing process.

Health care activities are heavily dependent on information and its accessibility is important for the outcome. In addition to ensure high-quality and safe care, easily accessible information about patients' diagnoses, treatment, nursing care and rehabilitation can facilitate collaboration between organizational levels, professional groups and within teams. Another example is that easy access to compilations of scientific information is strongly linked to the development of evidence- and knowledge-based practice. Furthermore, access to adequate information can lead to greater participation by patients and their significant others. The electronic patient record system is central to the planning, provision and evaluation of care, while easily accessible and appropriate nursing information can facilitate decision-making and coordination of care interventions (Lamantia et al. 2010; Lyhne et al. 2012).

Nurses increasingly employ digital technology to search for information for

High-quality care

High-quality health care is knowledge-based and suited to its purpose, safe, patient-focused, effective, equal and provided within a reasonable time. (National Board of Health and Welfare 2012 <http://www.socialstyrelsen.se/indikatorer/godvardverkygforuppfoljningochutvardering>).

Person-centred care

Person-centred care implies respecting and confirming the individual's experience and interpretation of illness and disease. Such care promotes health based on its meaning to the individual person. The nurse encounters the person with a disease and not his/her disease and the needs expressed by the person are equally important as those identified by health care professionals.

The Swedish Society of Nursing about... Person-centred care (2010).

Summary of facts no. 2



Ensuring high-quality and person-centred care requires that nursing documentation is an integrated part of the information that is systematically registered and compiled.

decision-making and provision of care (Jönsson & Willman 2009). Examples are information in the online *Handbook of Health care*, manuals for decision making in telephone advisory service and certain types of reminders integrated in the electronic patient record. Digital technology can also support various processes, such as care programmes or standardised care plans. The recommended care level becomes clear when patient care decisions are evidence based, thus increasing the opportunity to achieve a safe and equal care. This presupposes that information and decision-making support are employed so as to take account of individual needs, i.e. person-centred care.

Access to standardized information that is possible to communicate across organizational boundaries can reduce the risk of misunderstandings. A *National Information Structure* and a *National Interdisciplinary Terminology* (see Summary of facts no. 3) facilitate the handling and sharing of information in a structured, suitable and standardised way (National Board of Health and Welfare 2009; 2011).

It is essential that nurses contribute with knowledge and exert an influence in the ongoing work to develop and introduce a national interdisciplinary terminology for health care in order for nursing care to become visible in patient records, national quality registers, guidelines and other documents. Nurses' involvement is necessary for identifying existing care processes in the organization and ways in which they can be supported by digital technology for the purpose of quality improvement. Unless such basic work is carried out, there is a risk that digital technology dictates the conditions rather than support the care processes.

Nurses are responsible for ensuring that nursing information is of such extent and quality that it contributes to a holistic picture of the patient's health status and care needs. Ensuring high-quality and person-centred care requires that nursing documentation is an integrated part of the information that is systematically registered and compiled. Nurses' interventions and nursing care constitute a substantial part of health care services but are seldom reported. For the nursing information contained in the electronic patient record to be reused (for example in national quality registers) nurses need knowledge of and be able to use the terms, concepts and classifications in the *National Interdisciplinary Terminology*. This also avoids the risk of repeating content in the documentation.

The National Interdisciplinary Terminology is a common resource for health and social care comprising five parts:

- Terms and concepts agreed at national level and published in the National board of health and welfare's terminology database
- Statistical classifications and code system established on a national level
- The Snomed CT concept system (Systematized Nomenclature of Medicine Clinical Terms)
- Development and administration methods
- Regulations for use

Classifications:

ICD-10-SE: International Classification of Diseases and Related Health Problems.

ICF and ICF-CY: International Classification of Functioning, Disability and Health as well as the child and adolescent versions thereof.

KVÅ: Classification of care interventions comprising a common Nordic surgical intervention classification and a Swedish classification of medical interventions.

Code system:

The term code system is here used to denote classifications that are less extensive or complex. Examples of common code systems are descriptions of gender, socio-economic class, form of accommodation, type of clinic and life-style factors.

National Interdisciplinary Terminology for Health and Social care (National Board of Health and Welfare 2011).

Summary of facts no. 3

Communication and collaboration

Targets:

- nurses should use eHealth applications for communication and collaboration based on a critical stance with regard to benefit and user friendliness
- the use of eHealth should facilitate encounters and communication with patients and their significant others as well as collaboration with other health professionals and care providers
- eHealth should be employed in a way that strengthens patients' involvement and control over their own care and health.



Telenursing

Means the provision of distance care using distance bridging technology when there is a physical distance between patient and nurse.

eHealth influences the nurse–patient encounter. While it can add value to nursing processes based on patient needs, there is also a risk that the technology causes frustration and alienation. In the encounter between two individuals, the technology should be supportive rather than dominating.

A key objective of such interaction is to support the integrity, continuity and involvement of patients and significant others by taking account of their perspectives. Continuity and involvement can be strengthened by means of digital technology, but nurses must take care to ensure that patients' integrity is preserved. Communication based on digital technology differs depending on the form and technical solution employed. For example, during a home care video conference, communication in real time allows two-way communication and dialogue, while e-mail, sms, discussion forums or written text in electronic patient records can rather be described as methods for one-way communication. However, the latter permits greater flexibility in terms of time and space.

e-Health services such as *The National Patient Summary (NPÖ)*, developed by the Center for eHealth in Sweden (CeHis 2012) allow nursing staff, with patients' consent, to access patient record information registered by other care-providers. Within the European Union (EU) an ongoing development project, epSOS, aims to create possibilities for exchange of patient record information between member states (epSOS 2011). Other eHealth services, for example, *My Healthcare Contacts* and *1177.se Healthcare online* are directed towards patients and significant others and are intended to facilitate counselling, booking appointments, handling of prescriptions etcetera. *My Healthcare Services* will permit patients to access as well as enter information in their own medical record.

Distance care provided via telemedicine and telenursing enables more efficient use of specialist competence and resources (Nilsson et al. 2010). It can also increase patients' sense of safety and facilitate independent living, as it becomes easier to have contact with the allocated nurse at work, thus enhancing accessibility (Nilsson et al. 2006).

eHealth services can facilitate nurses' communication with patients and significant others. At the same time it is important to minimise risks and threats to confidentiality, integrity and dignity by respecting patients' individual preconditions and preferences for communication. The power balance between patient and nurse shifts when the patient has online access to information about health and ill health. It also places greater demands on nurses to act as advisers and guides in relation to the patient's own efforts to attain and maintain health. Online information that is misleading and not objective can cause confusion or worry among patients and significant others. The nurse's educational function becomes more important and

brings with it the need to develop evidence-based educational material to use in ICT solutions for patients and their significant others. Such material can be employed in a face-to-face meeting between patient and nurse or via the Internet, according to the patient's needs and situation (Jönsson & Willman 2007).

Core ethical values

Targets:

- when eHealth is used, patient's vulnerability and core ethical values such as patients' dignity, integrity and autonomy should be considered
- nurses should work proactively to provide person-centred care to all patients irrespective of their level of access to information and communication technology
- guidelines should be formulated to regulate nurses' use of digital technology and social media as well as make a clear distinction between the professional and private role
- nurses' use of social media should be based on knowledge and a critical stance, both professionally and in private life.

The implementation of eHealth in health and social care has great potential, although implementation of digital technology invariably necessitates careful consideration of ethical aspects (International Council of Nurses 2012). Nursing care is based on a humanistic perspective, where the individual is regarded as an active, creative agent capable of making decisions, assuming responsibility and being part of a context. A good encounter is characterised by respect for the person's vulnerability, dignity, integrity and autonomy (Swedish Society of Nursing 2010a). In nursing it is essential to care for and encounter the patient on the basis of core nursing values, which is also true when eHealth is used as support. The use of eHealth services should promote feelings of trust, hope and meaning as well as alleviation of suffering.

The nurse–patient encounter requires ethical competence, awareness, sound judgement and an approach based on ethical reflection that safeguards confidentiality. Nurses have a professional obligation to interact with and care for patients in a way that adheres to core nursing values (International Council of Nurses 2012; Swedish Society of Nursing 2010a), which is also the case when eHealth is used. Nurses must consider the patient's communication needs and resources thus minimise the risk of patients experiencing digital alienation (Zwijssen et al. 2011). Not everyone has access to digital technology nor is everyone able or has sufficient strength to play such an active role as is required for eHealth participation.



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Informatics

Scientific area for the study of the use of information technology and how such technology should be designed and applied to suit its purpose. eHealth has been introduced in health and social care to accentuate technology as one among other tools intended to support health.



All nurses require eHealth competence to be able to offer patients and significant others high-quality care.

This can limit contact with the health care and social services, which are undergoing rapid digitalisation. Nurses are also responsible for actively working to ensure that this group of patients has access to nursing care in accordance with their needs (Zwijnsen et al. 2011).

Guidelines are needed that regulate the use of digital technology and social media by health care professionals where a clear distinction is made between the professional and private role. The ethical aspect also includes a personal obligation to manage one's social media presence and communication in a manner that does not compromise professional responsibility and the relationship with patients. In order to act in an ethically correct way based on ethical reflection and awareness, nurses need to become aware of the boundary between professional and private life.

Learning and competence

Targets:

- eHealth should form part of all levels of nursing education and in continued learning during professional life
- specific education is needed that provides nurses with eHealth competence, thus enabling them to ensure that eHealth evaluation and development are adapted to nursing care.

All nurses require eHealth competence to be able to offer patients and significant others high-quality care. eHealth/informatics should be incorporated in bachelor and master degree nursing education (QSEN 2011; Swedish Society of Nursing 2010b). In addition, nurses must have the opportunity for ongoing professional development in the area of eHealth. Digital learning environments such as virtual skills training centres and applications constitute important support functions for learning and safe care. Digital technology can facilitate learning that is adapted to the individual in terms of time, place and content. eHealth makes it possible to simulate care scenarios for use in both nursing education and learning in clinical practice contexts, for example in connection with the implementation of new guidelines, treatment procedures and medical technical devices.

Nurses have a personal responsibility to keep themselves updated on the development of nursing knowledge, including eHealth (Patient Safety Act 2011). In order to do so, they need access to research-based knowledge in the form of data bases and various support documents such as national guidelines linked to the electronic patient record system.

To provide high-quality nursing care by means of eHealth services, nurses need knowledge and understanding of how digital technology influences human interaction (Wälivaara 2012). They also need to provide patients with professional guidance regarding the complex world of online health information. Nurses with sufficient competence can contribute to improve the information provided to patients and their significant others, thus enhancing their opportunities for involvement in their own care.

There is a need of nurses with expert knowledge in eHealth. By adopting a critical mode of thinking, nurses with such knowledge can carry out evaluations of existing digital support systems and formulate demands for the development of eHealth in nursing. eHealth knowledge requirements at bachelor (Appendix 1) and master degree level are presented in a description of qualifications produced by the Division of Nursing Informatics and the Swedish Society of Nursing (2012).

Leadership and management

Targets:

- eHealth should be an integrated part of operational development
- nurses in leadership positions are responsible for ensuring that eHealth promotes person-centred care
- eHealth should contribute to a satisfactory organization of work and good working environment.

Irrespective of the health care authority, the care provider is responsible for leading and managing the development of eHealth. Nurses in managerial positions should prioritise eHealth implementation and management issues as part of strategic operational development. The introduction of digital technology in health and social services also comprise operational development due to its far-reaching effects on structure, process and outcomes. It has a direct impact on the care processes, for example via medical technical equipment and administrative systems for contact between care providers, but also indirectly by providing support for information and decision making in different nursing situations.

Health care leadership should ensure quality care and a high level of patient safety as well as contributing to cost efficiency (Health and Medical Services Act 1982). Quality and patient safety management systems (SOSFS 2011) should set out how digital technology benefits can be achieved. The management team is responsible for ensuring that eHealth leads to high-quality person-centred care characterised by safe information handling. This responsibility also includes making



The introduction of digital technology in health and social services also comprise operational development due to its far-reaching effects on structure, process and outcomes.



Nurses should be involved in the early development and implementation of new digital technology in the care services and make use of their nursing competence to formulate and establish requirements.

certain that eHealth supports nurses' professional practice and contributes to a good working environment.

eHealth functions and applications can support nurses' leadership by facilitating follow up and development of, for example, care and treatment methods, risk and deviation handling, the nurse–patient encounter and development of staff competence. Furthermore, standardisation of structure and terms increases the possibility of reusing information registered in the electronic patient record and other digital systems. Reuse of information facilitates evaluation of quality as well as transparent comparisons of the care provided.

Technical support

Targets:

- technical solutions and eHealth services should be sufficiently flexible, accessible and safe to support nurses in their areas of responsibility
- nurses should play an active role in terms of formulating requirements as well as acting as innovators in the development of technical solutions and eHealth services
- nurses must monitor technical solutions and eHealth services to ensure that they maintain a high level of information and patient safety.

The design and content of digital technology differ depending on the operations' support needs. The requirements on a technical solution for use by patients are different from those placed on systems that compile information from a local to a regional, national or international level.

Health and social care services development requires more flexible and individually tailored technical solutions than those currently available. Such solutions and services must be able to coordinate information in flexible ways, provide accessibility by single-sign-on and present information that is appropriate for the recipient. To facilitate safe care and optimal use of resources, it should be possible to retrieve information from different parts of the information system and directly transfer anonymized data from the patient's record to e.g. national quality registers. In order to achieve this, nurses should be involved in the early development and implementation of new digital technology in the care services and make use of their nursing competence to formulate and establish requirements.

The area of eHealth services and digital tools that support health is undergoing a rapid development and nurses' contribution is essential. Smart phone applications and tablets enhance flexibility and enable the provision of high-qua-

lity care in different environments, both in care institutions and in the patient's home. In the near future, continuous monitoring of certain vital signs will become more common and smart clothes will constitute part of the treatment of some diseases. Research is ongoing to make it possible to register measured values directly on the skin, such as via secretion, and indirectly by measuring processes inside the body. Clothing developed by means of nanotechnology can, for example, register and respond to body temperature or heart activity by change colour or permeability (Lymberis 2011).

A high level of information and patient safety is vital in the development and use of digital technology in health care. It is necessary to regulate access to information in digital systems and highlight confidentiality in order to safeguard patient integrity. Protection of information should be designed to support health care processes in terms of content, access and flexibility and make it possible to trace user activities in the system. Information and patient safety is regulated by the Patient Safety Act, Patient Data Act, Personal Data Act, Privacy and Secrecy Act and Regulations on information management and record keeping in health care (see Summary of facts no. 4).

Policy documents for information and patient safety, 2012

- Patient Safety Act (SFS 2010:659)
- Patient Data Act (SFS 2008:355)
- Personal Data Act (SFS 1998:204)
- Privacy and Secrecy Act (SFS 2009:400)
- Medical Devices Act (SFS 1993:584)
- Regulations on information management and record keeping in health care. (SOSFS 2008:14)

Summary of facts no. 4



Research and development

Target:

- Nurses should conduct research and quality improvement projects that support the development of eHealth and its adaptation to nursing and the individual patient.

Nurses need to actively pursue research in the area of eHealth in order to increase knowledge of digital services and further strengthen the role and importance of nursing for patient's well-being.

The Patient Data Act (2008:355) states that one of the purposes of patient records is to provide data for research. Nurses contribute with a large amount of the information contained in patient records and the use of this and information from various registers should be extended in nursing research. Areas of particular importance for nursing are teamwork by means of digital technology, terms and concepts in nursing, decision support for nursing and eHealth services in which new technology can increase patient involvement (Bakken et al. 2008).

Nurses are also important actors in the implementation of research based knowledge and innovations. Nurses should have a clearly defined role in the development of eHealth services so these promotes high-quality nursing care for patients and significant others as well as optimal conditions for nurses to provide such care.

CONCLUDING STATEMENTS

Swedish Society of Nursing considers that:

- eHealth should promote equal and person-centred care
- eHealth is an important tool for increasing accessibility and patient involvement in health care
- eHealth should form part of all levels of nursing education and professional practice
- eHealth should constitute a well integrated part of nurses' professional practice, leadership and knowledge development
- nurses' use of eHealth should build on core nursing values and prevent digital alienation
- irrespective of speciality, nurses are responsible for contributing with their competence and thus influencing the development, implementation and evaluation of eHealth.

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<http://www.socialstyrelsen.se/e-health>

The Swedish Association of Local Authorities and Regions.

<http://english.skl.se/>

Working group

The strategy was developed by the Board of the Swedish Society of Nursing. A working group comprising registered nurses conducted preparatory work and developed the basis for the strategy document. They were:

Anna-Lena Brantberg, Board member, Swedish Society of Nursing

Jan Florin, Assistant Professor, Dalarna University, and Board member of the Division of Nursing Informatics, responsible for developing the basis for the strategy document

Elisabeth Strandberg, Senior adviser - Research and eHealth, Swedish Society of Nursing

Eva Törnvall, Board member, Swedish Society of Nursing.

The divisions and networks of the Swedish Society of Nursing have contributed viewpoints and suggestions.



Description of qualification requirements in Health informatics

Nurses who have completed a bachelor degree should be able to:

In the area of nursing theory and practice

- outline the meaning of core concepts within Health informatics
- employ word processing, file and image applications
- explain and provide examples illustrating why Health informatics is essential for the quality and safety of patient care
- identify relevant information necessary for supporting patient care
- handle information in a care unit by:
 - using information systems to support clinical care processes
 - documenting and planning care in an electronic information system
 - employing communication technology for coordinating patient care
 - using information handling tools and monitoring outcomes of clinical processes
- employ clinical decision support and its alerts
- search for, retrieve and handle information in order to make decisions supported by information and management systems
- use information systems in patient education and to promote the individual patient's involvement and health
- understand the necessity of continuous knowledge acquisition in the area of Health informatics
- employ information systems and handle patient related information while ensuring secrecy, integrity and confidentiality
- explain the patient's rights associated with electronic information handling.

In the area of research and development

- evaluate and utilise safe electronic information sources
- evaluate technology that supports clinical decision-making, prevents errors and facilitates coordination of care
- compare the advantages and limitations of different information systems and their impact on safety and quality
- understand the value of nurses' involvement in the design, selection, implementation and evaluation of information systems.

In the area of management

- plan for the effective and safe use of digital technology and information systems in patient care
- use digital tools in the way intended.

(Division of Nursing Informatics, 2012, pp. 7–8).

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Swedish Society of Nursing is a professional organization for nurses and represents the profession's areas of expertise with a view to promoting research, education, development and quality improvement in nursing. Membership is open to all registered nurses and nursing students. www.swenurse.se