

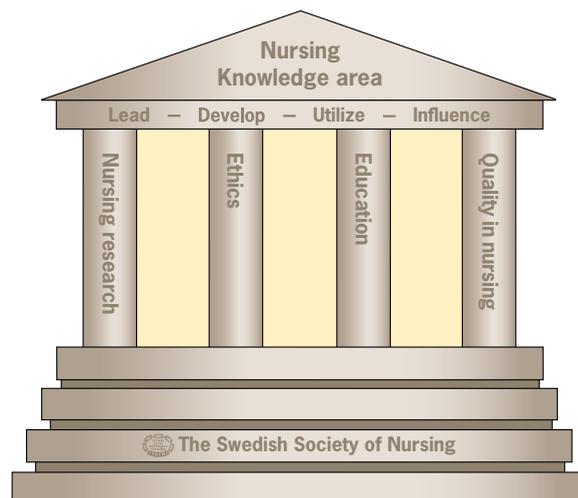
STRATEGY FOR NURSES'
eHEALTH DEVELOPMENT WORK



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PREFACE

Swedish healthcare has undergone major structural changes in recent decades. The large reduction in the number of hospital beds and the shift towards care in the home have had a great impact on patients, their significant others and care personnel. At the same time, considerable demographic challenges mean that fewer people of working age have to take care of the ageing population. There is a clear political aspiration for patients to take increasing responsibility for their own health and care. To support this development, national eHealth services are being launched. The concept of eHealth involves the use of digital services to facilitate contact and communication with the health services as well as for examination and treatment. Healthcare is being influenced and transformed by digital technology such as robots, artificial intelligence (AI) and “big data”. In addition, the vast amount of information of varying quality about disease and ill health available on the internet impacts on healthcare today. Taken together, this places demands on nurses and other care personnel to develop new competences and alternative methods of working.

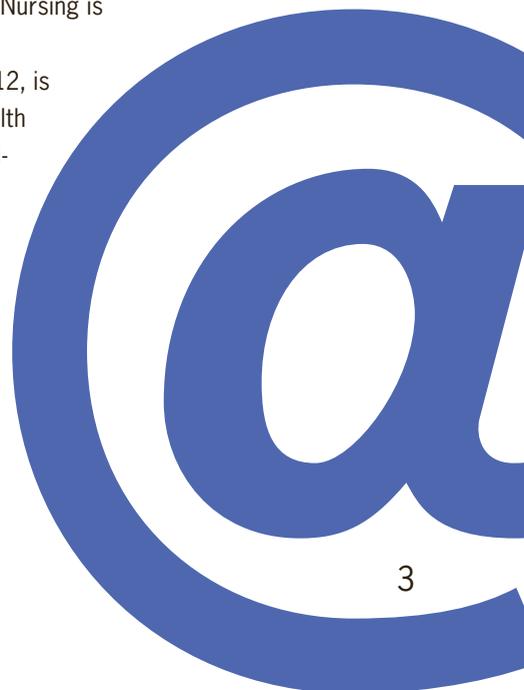
The ability to achieve the high national targets set out by the Swedish government and the SKL (The Swedish Association of Local Authorities and Regions) in the vision of eHealth 2025 is based on politicians and decision-makers assuming responsibility for governance, infrastructure and financing. Despite eHealth having been part of the national agenda for many years, the digital system within healthcare still has deficiencies that pose a risk to patient safety, such as in the transfer of information between healthcare managers and care personnel. Moreover, the national interdisciplinary terminology lacks terms and concepts that enable a structured documentation of healthcare. The nursing education in eHealth needs to be developed both in terms of basic and specialist training as well as within nursing practice, where there is a great demand for knowledge, competence and user friendliness. The Swedish Society of Nursing is working proactively to influence and improve these issues.

The purpose of the Strategy for nurses' work with eHealth, first published in 2012, is to highlight important prerequisites and competences required to implement eHealth that provides added value to patients and their significant others. The strategy describes nurses' responsibility for person-centred care based on a humanistic approach in the use of digital technology tools. It also underlines the importance of nurses being involved in and able to influence the development of eHealth services and welfare technology aimed at supporting nursing care.

Stockholm, February 2019

Ami Hommel

President of the Swedish Society of Nursing



Health and social care as a process

Health and social care is defined as actions and interventions for individuals in receipt of social services, support and services to persons with functional impairments as well as healthcare provision in accordance with legislation. Nursing care has a central role in all health and social care.

(Term bank of the National Board of Health and Welfare)

Nursing informatics

Nursing informatics comprises the science and practice of nursing where nursing information, knowledge and their management are integrated into ICT (Information and Communication Technology) aimed at promoting the health of individuals, families and social groups worldwide.

(International Medical Informatics Association – Nursing Special Interest Group, Helsinki 2009).

THE STRATEGY AND CONCEPT OF eHEALTH – AREAS OF APPLICATION

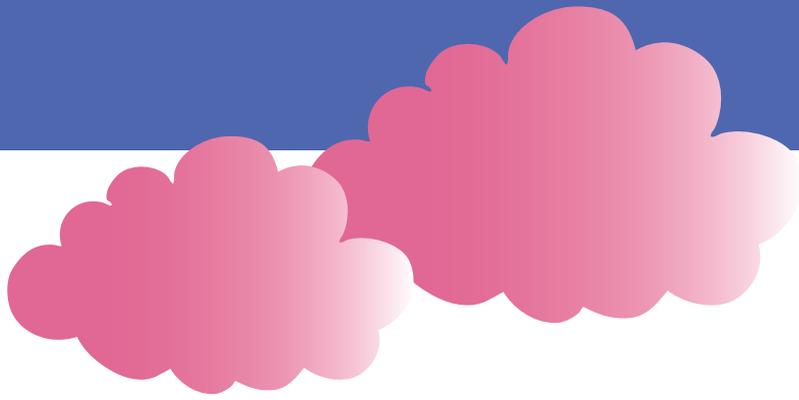
The strategy's main targets

eHealth supports nurses and increases their ability to provide high-quality, safe, person-centred evidence-based care characterized by continuity and grounded in professional practice, leadership, competence and knowledge development.

Nurses are important actors within healthcare and the strategy highlights their role in the ongoing development of eHealth within nursing. Nurses provide care both within the healthcare organization and within the area of social care. The strategy is aimed at nurses in clinical practice, management and administration, irrespective of speciality as well as nurses within education and research. Nurses often have a coordinating function and are involved in the management of health-related information both within their own organization and between care providers. This includes collecting, storing and evaluating data as well as communication with actors and stakeholders at different levels – for example patients, healthcare professionals, care organizations and administrative staff. eHealth is needed to support care processes for the purpose of ensuring continuity in the care chain, thus contributing to patient safety. Information should be made available in the right amount, at the right time and to the right person within the health and social care services as a basis for decisions, implementation and evaluation of care.

The strategy can be used:

- to provide discussion support in the development of clinical practice and other professional contexts, both nationally and internationally
- to guide the design of curricula in nursing education at bachelor and master levels
- to identify, by means of dialogue with employers, what nurses need for their education and competence development
- to provide inspiration for eHealth research and development projects focusing on nursing care



What is eHealth?

The concept of eHealth is based on the World Health Organization (WHO) definition of health. The addition of “e” indicates that digital technology can be employed to improve the chances of achieving health that is good, equitable and available to everybody. According to the WHO definition (2016; 2018), eHealth is the use of digital technology to, for example, treat patients, conduct research, train students, track diseases and monitor public health. The EU Commission has adopted eHealth as an umbrella term for digital technology applications aimed at improving and developing health at individual and societal level. This includes self-care, healthcare, social care as well as healthcare providers’ interaction with patients, their significant others and other relevant parties (EU 2012).

The concept of eHealth gained recognition in Sweden when the name of a national information and communication technology (ICT) strategy for health and social care in 2010 was changed to *National eHealth – the strategy for accessible and secure information in health and social care* (Ministry of Health and Social Affairs 2010). In 2016 the Government launched Vision eHealth where the aim was as follows: “In 2025, Sweden will be the world leader in utilizing the opportunities offered by digitalization and eHealth with a view to facilitating individuals to obtain good and equitable health and wellbeing as well as developing and strengthening their own resources to achieve increased autonomy and participation in social life” (Ministry of Health and Social Affairs 2016). The following year, the Government and the Swedish Association of Local Authorities and Regions (SKL) issued an action plan for cooperation in the implementation of Vision eHealth 2025 (Ministry of Health and Social Affairs (2017).

Examples of national eHealth services are *The 1177 healthcare Telephone Helpline*, *1177.se Healthcare on line*, *The national patient summary (NPÖ)*, *My Healthcare Contacts* and *The handbook of healthcare*.

Another concept launched in the area of municipal health and social care is welfare technology. According to the Term bank of the National Board of Health and Welfare, the definition of welfare technology is “digital technology that aims to maintain or increase the safety, activity level, participation or autonomy of a person who has, or is at risk of, functional impairment. Examples of welfare technology are digital safety alarms, peer supervision, sensors with reminders or robots that can perform tasks such as feeding or showering a person. Welfare technology

Information and communication technology, ICT

The IT area that covers communication between people. Distance learning is built on the use of ICT.

Social media

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

Cloud service

External server space which can be accessed from individual computers via the internet. A way for users/customers to avoid investing in expensive solutions by renting space from a company specialized in specific areas.



can be used by the individuals themselves or with the help of their significant others or healthcare personnel. The technology can be granted as a form of assistance, prescribed as aid in everyday life or be purchased by the users themselves.

Several actors, such as politicians, authorities, education and research institutes are, together with product developers, responsible for achieving the national eHealth target. All professional groups within the health and social services have the responsibility to contribute to the development of eHealth from their own professional perspective.

Development of eHealth

Healthcare is strongly dependent on knowledge and information. Digital technology use, usually in the form of information and communication technology (ICT), constitutes an essential and integrated part of all healthcare. Such technology will be increasingly utilized in the future; both in patient care and in communication between various actors and organizations, for example within administration, quality improvement work and research. Digitalization facilitates storage, management and transfer of information, supports clinical decision-making and enables distance care (Black et al. 2011).

Based on their professional perspective, nurses have a duty to keep themselves informed about as well as be prepared to embrace and participate in the development of eHealth. The use of information services such as social media, sms, mms and health apps in mobile phones and tablets has a huge impact on healthcare today. The availability of mobile and smart phones to support care, so-called mhealth, is considered to have great potential for improving public health worldwide. Access to information increases the opportunity of patients and their significant others to assume responsibility for their own health. One example is patients with diabetes and high blood pressure who carry out tests on themselves in combination with receiving health information and feedback via ICT (Wakefield et al. 2012). This leads to professionals assuming a more supportive and guiding role in relation to a more knowledgeable and well-informed patient.

Nurses are faced with new demands and needs in their efforts to provide person-centred care (see summary 1) for patients and their significant others. The development of eHealth may lead to advantages for the patient, such as increased flexibility and possibility to take part in and influence current as well as future health and social care. However, it may also imply a risk of her/his integrity being violated.

TARGET AREAS FOR eHEALTH DEVELOPMENT

eHealth may have an impact on many aspects related to organizational structure and process, and thus healthcare outcomes, as it involves preconditions, implementation and development. eHealth must be a part of all organizational development, as it has a fundamental influence on the healthcare services and actors involved. The digitalization of society in general in combination with rapid technical advances strongly influences all areas of healthcare development. The Swedish Society of Nursing's eHealth strategy targets a number of areas of specific importance from a nursing perspective. These are: Information management, Communication and collaboration, Core ethical nursing values, Learning and competence, Leadership and management, Technical support and Research and development. Each area contains specified targets within nurses' areas of responsibility that must be met in order for eHealth to benefit patients and their significant others. To make it possible for nurses to achieve these targets, politicians, decision-makers and healthcare professionals need to provide the necessary infrastructure and support for eHealth.

Information management

Goals:

- Nurses should have access to appropriate information and support within decision making when providing nursing care
- Nurses should contribute to the development of the structure and terminology in the electronic patient record
- Nursing documentation requires a structure that is adapted to its purpose and should consist of standardized terms that reflect the nursing process and the content of nursing

Healthcare is an activity that involves a great deal of information, thus it is extremely important for the outcome that information is easy to access. Easily accessible information about patient examinations, diagnoses and treatment not only ensures high quality and safe care, but also facilitates teamwork as well as cooperation between different care levels and professional groups. Furthermore, easily accessible compilations of scientific information have been found to be significantly associated with the development of evidence and knowledge-based

High-quality care

High-quality care is defined as knowledge based adapted to its purpose, safe, patient focused, effective, equitable and provided within a reasonable time. (Ministry of Health and Social Affairs 2009 <http://www.socialstyrelsen.se/indikatorer/godvardverkygforuppfoljningochutvardering>)

Person-centred care

Person-centred care means respecting and confirming a person's experience and interpretation of ill health and disease. Such care promotes health based on its meaning to each individual. Person-centred care implies that nurses put the individual patient before her/his disease and that the needs expressed by the patient are considered of equal importance to those identified by healthcare professionals.

The Swedish Society of Nursing, The Swedish Medical Society and The Swedish Association of Clinical Dietitians (2019). Personcentrerad vård – en kärnkompetens för god och säker vård (Person-centred care – a core competence for high-quality, safe care).

Summary 1.



To ensure high-quality, person-centred care, the nursing documentation must be systematically registered, compiled and become an integrated part of the information.

care. The influence and participation of patients and their significant others can be enhanced by access to adequate information. The electronic patient record constitutes a central tool in the planning, implementation and evaluation of care and, when easily accessible, nursing information can facilitate decision-making and coordination of care interventions (LaMantia et al. 2010; Lyhne et al. 2012).

Digital technology can facilitate information extraction a basis for decision making and nursing care interventions. An example is the online Handbook of healthcare, care helplines and, in some cases, reminders via the electronic patient record. Digital technology can also take the form of process support, such as a care programme or a standardized care plan.

Access to standardized information that can be communicated across organizational boundaries can reduce the risk of misunderstanding. The National information structure and terminology within the discipline of nursing care (National Interdisciplinary Terminology, see summary 2) is a resource that contributes to creating preconditions for managing and sharing information in a way that is structured, standardized and fit for purpose (National Board of Health and Welfare 2013; 2017).

However, this presupposes that the National Interdisciplinary Terminology contains terms and concepts that cover the requirements of all knowledge areas. The Swedish Society of Nursing is working to make the ICNP (International Classification of Nursing Practice) part of the National Interdisciplinary Terminology, thereby ensuring the standardized documentation of nursing care. The ICNP is administered by the International Council of Nurses (ICN) and has been available in Sweden for a number of years. A common standardized terminology is necessary in order for the knowledge in the area of nursing to be systematically documented in the patient record and for the documentation to be reused in various ways as a basis for decision-making and knowledge development. The ICNP has such potential as it is also employed internationally. Nurses' knowledge and influence in the continued work to develop and employ a national interdisciplinary terminology that describes nursing care is extremely important in order for nursing care to be systematically presented, not only in patient records but also in national quality registers, guidelines and other documentation. Nurses need to have a role in identifying which care processes are involved in the activities in question and how they can be supported by means of digital technology in order to improve the quality of care.

Nurses are responsible for ensuring that sufficient nursing information is available and of such quality as to contribute to a comprehensive picture of the patient's health status and care needs. To ensure high-quality and person-centred care, it is necessary that the nursing information becomes an integrated part of the information that is systematically recorded and compiled. Nurses' interventions and care

constitute a significant part of healthcare activities but are not always visible in the reporting.

To enable nurses to enter nursing information contained in the patient's record into, for example, national registers, they need to have access to terms, concepts and classifications contained in the National Interdisciplinary Terminology and to demand that standardized nursing terms and concepts be part of the interdisciplinary terminology.

The national interdisciplinary terminology constitutes a common resource for nursing care, comprising five sections:

- Nationally agreed concepts and terms published in the term bank of the National Board of Health and Welfare
- Nationally determined statistical classifications and code systems
- The Snomed CT concept system
- Development and administration methods
- Regulations pertaining to use

Classifications:

ICD-10-SE: International statistical classification of diseases and related health problems.

ICF och ICF-CY: International classification of functional status, functional impairment and health including the child and adolescent version.

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

Code systems:

Code system here denotes less comprehensive or complex classifications. Examples of less commonly used code systems are description of gender, socio-economic status, residence, type of clinic and lifestyle factors.

National information structure and national interdisciplinary terminology (National Board of Health and Welfare 2013).

Summary 2.



For in-depth information, see *National interdisciplinary and other terminologies* by the Swedish Society of Nursing at www.swenurse.se

Telenursing

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

Communication and collaboration

Goals:

- Nurses are to employ eHealth applications for communication and collaboration, based on a critical stance with regard to utility and user friendliness
- eHealth is to be utilized to facilitate encounters and communication with patients and their significant others as well as collaboration between other professional groups and care providers
- eHealth is to be used to strengthen patient participation and control over their own care and interventions

The use of eHealth influences the nurse-patient encounter and interaction. eHealth can add value to nursing processes based on patients' needs but there is a risk of the technology contributing to frustration and alienation. There are two subjects in a nurse-patient encounter, where the digital technology should be supportive rather than dominant.

A significant core nursing value is that communication should maintain integrity from the perspective of patients and significant others. Digital technology can be used to strengthen continuity and participation, which places demands on nurses to be vigilant in order to ensure that integrity is safeguarded. Communication via digital technology varies depending on the technical solution and form employed. For example, real-time communication by means of a home nursing video conference allows two-way communication and dialogue. Communication via e-mail, sms, discussion forums or written text in an electronic patient record is more in the nature of one-way communication. On the other hand, such communication allows greater flexibility in terms of time and space.

eHealth services such as the National Patient Overview (NPÖ) enable nursing staff to access patient record information documented by other care providers with the patient's permission. The on-call service website 1177.se is intended to facilitate consultation, arranging appointments, obtaining a prescription etcetera. for patients and their significant others. The electronic patient record is accessed via logging in by means of bankID and allows patients to see the information contained in their own record.

Distance healthcare (sometimes called telemedicine or telenursing) available through eHealth services such as Video and distance meetings and the Support and treatment platform means that specialist competence and resources can be used more efficiently (Nilsson et al. 2010). Moreover, distance nursing can enhance patient safety as well as the possibility of the patient remaining in her/his

own home by increasing the availability of and contact with the nurse responsible (Kristoffersson et al. 2019).

Nurses can use eHealth services in order to facilitate communication with patients and their significant others. At the same time, risks and threats to confidentiality, integrity and dignity must be minimized by taking into account the patients' conditions and preferences regarding their preferred mode of communication. The balance of power between patient and nurse shifts when patients have online access to information about health/illness. This leads to increased demands on nurses to advise and guide patients in their efforts to achieve and maintain health.

Misleading and inaccurate information obtained via the internet can create confusion or worrying patients and significant others. Thereby, nurses' teaching role assumes even greater importance, thus generating a need for the development of evidence based educational material that patients and significant others can access by means of digital technology (Bowles et al. 2015).

Core ethical nursing values

Goals:

- When eHealth is employed, core values such as patient vulnerability, dignity, integrity and autonomy should be respected
- Nurses should strive to ensure that all patients receive person-centred care, irrespective of the extent to which they have access to information and communication technology
- Nurses' use of social media shall be based on knowledge and a critical stance, both in their professional practice and when off duty

eHealth and welfare technology has great potential in healthcare but the introduction of digital technology must always be accompanied by careful consideration of ethical aspects (International Council of Nurses 2014). Nursing care is rooted in a humanistic view where the human being is regarded as a creative person who is part of a context and can take responsibility and make choices. The experience of a good encounter presupposes respect for the person's vulnerability, dignity, integrity and autonomy (Swedish Society of Nursing 2016). These core values must also be respected when digital technology is used in encounters with patients and significant others. In addition, eHealth services should enhance opportunities for trust, hope and meaningfulness as well as alleviate suffering.

The nurse-patient encounter requires ethical competence, awareness, sound



When using eHealth as support, nurses are responsible for ensuring that their way of encountering and caring for patients is based on core nursing values.

Informatics

Informatics is a scientific area that focuses on the use of information technology and how it can be designed and applied in an appropriate manner. The concept of eHealth has been introduced in order to stress that digital technology is one of several tools aimed at improving health.



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

judgement and an approach based on ethical reflection to ensure that confidentiality is respected. Nurses are professionally responsible for encountering and caring for the patient based on core nursing values (International Council of Nurses 2014; Swedish Society of Nursing 2016), which also applies to the use of eHealth (Zwijsen et al. 2011). Not everyone is in a position to or has sufficient strength to take such an active role as that demanded by the use of eHealth. This may limit contact with medical and social services, which are undergoing rapid digitalization. A total of 516 000 individuals in Sweden did not use the internet at all in 2018 (The Swedish Internet Foundation 2018). The reason most of them gave was that they did not find the internet useful. Nurses have a duty to be instrumental in ensuring that this group gains access to prevention, information and nursing care that match their needs (Zwijsen et al. 2011).

There is a need for healthcare guidelines that regulate nurses' and other healthcare personnel's use of digital technology and social media, where a clear distinction is made between the professional and the private role. The ethical aspect also includes nurses' personal responsibility to manage their private presence and communication on social media in such a way that it will not compromise their professional responsibility and relationship with patients. The level of recognition of the boundary between working life and private life has to be strengthened to enable nurses to act in an ethical manner based on reflection and awareness. For this purpose, the Swedish Society of Nursing has published an Ethical compass for nurses' use of social media (2017a).

Learning and competence

Goals:

- eHealth should form part of all levels of nursing education and continued learning in clinical practice
- Nurses' required level of eHealth and informatics competence should be articulated and made known
- Specific education that provides nurses with eHealth competence is necessary, thus enabling them to ensure that eHealth evaluation and development is adapted to nursing care

All nurses require competence within the core areas of informatics and eHealth to be able to offer patients and significant others high-quality care. eHealth/informatics should be incorporated in the bachelor's and master's degree of nursing education

(QSEN 2018; Swedish Society of Nursing 2017b). 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 ultimately 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 clinical practice contexts, for example in connection with the implementation of new guidelines, treatment procedures and medico-technical devices.

Nurses have a personal responsibility to keep themselves updated on the development of nursing knowledge, including eHealth and informatics, and to maintain this competence (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 require 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 adequate competence can contribute to patients and significant others being better informed, thus enhancing their opportunities for involvement in their own care.

There is a need of nurses with expert knowledge in the area of eHealth and nursing informatics. By adopting a critical stance, nurses with expert knowledge can carry out evaluations of existing digital support systems and specify the requirements for the development of eHealth services that are adapted to nursing. eHealth knowledge requirements at bachelor degree level are presented in a description of qualifications for registered nurses (Swedish Society of Nursing 2017b) and those for master degree level can be found in a competence description published by the Division of nursing informatics, Swedish Society of Nursing (2012).

Leadership and management

Goals:

- 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 satisfactory organization of the work and a good working environment



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



Based on their nursing competence, nurses should play an active role in specifying requirements at an early stage of the development and introduction of new digital technology in the healthcare service.

Irrespective of the healthcare authority it is the care provider that lead and manage the development of eHealth. Nurses in managerial positions should prioritize eHealth implementation and management issues as part of strategic operational development.

The introduction of digital technology in health and social services also comprises operational development due to its far-reaching effects on organizational structure, process and outcomes. Digital technology has a direct impact on care processes, for example via digital care conferences, medico-technical equipment and administrative systems for contact between care providers, but also indirectly by providing support for decision-making as well as information to nurses in different care situations.

Leadership of healthcare should be organized in such a way as to ensure high levels of quality of care and patient safety, in addition to contributing to cost efficiency (Health level and Medical Services Act 2017:30). Quality and patient safety management systems (SoSFS 2011:9) should set out how the benefits of digital technology can be achieved. The management team is responsible for ensuring that eHealth leads to high-quality person-centred care characterized by a high level of safe information management. This responsibility also includes making certain that eHealth supports nurses' professional practice and contributes to a good working environment.

eHealth functions can support nurses' leadership role by facilitating follow up and development of, for example, assessment and treatment methods, risk and deviation management, the nurse versus patient encounter and development of staff competence. Furthermore, standardization 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

Goals:

- 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
- Nurse involvement in monitoring technical solutions and eHealth services to ensure a high level of information and safety in terms of both the information and the care

The design and content of digital technology differ depending on the support needs of the activity in question. The requirements on a technical solution for patient use differ from those placed on systems for compiling information from a local to a regional, national or international level. Health and social services development requires more flexible and individually tailored technical solutions than those currently available.

Technical solutions and services must be able to coordinate information in flexible ways, provide accessibility by single-sign-on and present information that is adapted to the recipient. To promote safe care and optimal use of resources, it should be possible to retrieve information from different parts of the patient record system and directly transfer data from the patient record to, for example, national quality registers. In such a context, interoperability comprising technical, semantic, legal and organizational aspects becomes important. In order to achieve this, nurses should be involved in the early development and implementation of new digital technology in the healthcare service, making use of their nursing competence to formulate and specify requirements.

The area of eHealth services, digital tools and applications in smart phones and tablets is undergoing a rapid development, which allows greater flexibility, thus enabling the provision of high-quality care in different environments, both care institutions and the patient's home. The development of welfare technology can contribute to a safer home environment as well as greater autonomy for older persons and people with functional impairments. 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 measurements made 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, change colour or permeability (Lymberis 2011).

Digital technology, such as robots, artificial intelligence (AI) and "big data", strongly affects health and social care. New services and methods of compiling data for research in the area of medicine and nursing care will transform healthcare in many ways. A factor that needs to be highlighted is trust between patient and care personnel. In addition, increasingly digitalized healthcare means that ethical aspects must be safeguarded, with greater focus on the way in which information can be stored, managed and shared in a secure way.

Protection of information is extremely important and should be designed to support healthcare processes in terms of content, access and flexibility in addition to making it possible to trace user activity in the system.



Information and patient safety is regulated by the Patient Safety Act, Patient Data Act, Personal Data act, Public Access to Information and Secrecy Act, Medical Devices Act and Regulations on information management and record keeping in healthcare. Furthermore, from May 2018 the General Data Protection Regulation (GDPR) gained legal force in all EU member states.

Research and development

Goal:

- For nurses to conduct research and quality improvement projects that support the development of eHealth and its adaptation to nursing and patient-centred care

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

The Patient Data Act (2008:355) states that a purpose of patient records is to provide data for research. Nurses contribute a large amount of the information contained in patient records. The use of this and other information from various registers is an important aspect of nursing research that should be strengthened. Areas of particular importance for nursing are teamwork by means of digital technology, nursing terms and concepts, decision support for nursing and eHealth services where new technology can increase patient involvement (Bakken et al. 2008, Nahm et al. 2018). Nurses are also important actors in the implementation of research-based knowledge and innovations. They should adopt a clearly defined role in the use of digital services for healthcare development to ensure that they lead to high-quality nursing care for patients and significant others as well as optimal conditions for nurses to provide such care.

CONCLUDING STATEMENTS

The healthcare service is strongly dependent on knowledge and information, with digital technology playing an increasingly important role in direct patient care, administrative work as well as in research and quality improvement work.

Many actors share responsibility for meeting the targets. Education and research institutes are responsible for developing eHealth knowledge and competence, both on a personal and a professional level. Healthcare and social service providers as well as managers bear responsibility for introducing and organizing healthcare by means of ICT in such a way as to promote high-quality, safe care. eHealth and information system developers have a responsibility for making the systems user friendly, while maintaining patient safety and integrity.

It is imperative to stress each nurse's individual responsibility when it comes to possessing sufficient eHealth knowledge and competence, in addition to having the opportunity to continually update such competence.

The 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 healthcare
- eHealth should form part of all levels of nursing education
- 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, thus influencing the development, implementation and evaluation of eHealth







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