

HEALTH SCIENCE  
RESEARCH PROGRAM  
2022–2025



# Contents

1. Health science research evidence for the benefit of patients .....	3
2. High-quality, safe and effective patient care requires research evidence .....	4
3. Four priority areas for research .....	5
3.1 Excellent leadership .....	6
3.2 Preconditions for the professional practice of nursing staff .....	7
3.3 Practices of clinical nursing care, therapy and diagnostics .....	8
3.4 High quality of health services .....	9
4. Research practices .....	10



# 1. Health science research evidence for the benefit of patients

The Health Science Research Program describes the objectives, subjects and practices of health science research activities at Helsinki University Hospital (HUS). The Research Program integrates health science research carried out at HUS into a broader framework and describes HUS's health science research to the wider audience. The objective of the Research Program is to guide health science research at HUS, for example by providing research topics for research organizations and universities of applied sciences.

The Health Science Research Program was developed by a network of HUS doctors with a nursing background in 2020–2021. The development of the Research Program is coordinated by the HUS Nursing Research Center, which is also responsible for the implementation and updating of the Research Program. The realization of the Health Science Research Program (e.g. completed doctoral theses and scientific articles) is reported on the Intranet, the Internet and in the HUS Annual Reports of Nursing.

**In the Research Program, health science research covers the following disciplines: nursing science, physiotherapy, clinical laboratory science, pharmacy, clinical nutrition, radiography, social and health management science, health economics as well as social and health information management.**



## 2. High-quality, safe and effective patient care requires research evidence

As a university hospital, HUS has a special responsibility to produce research evidence and to incorporate it into patient care practices.

**The mission of HUS's health science research is that good patient care outcomes are achieved through new knowledge derived from health science research and by developing research-based health care methods.**

**The vision, in turn, is to produce high-quality and multifaceted health science research that delivers health benefits for patients as well as effectiveness, efficiency and quality for HUS operations and its organization.**

The starting point for health science research at HUS is the research information needs of clinical work and its management and teaching. Health science research contributes to good patient care outcomes, staff competence and excellent leadership in functioning structures. It also helps to monitor and develop indicators of the effectiveness and quality of care. The objective is that health science research will be used to an increasing degree in benchmarking of the quality of care and in knowledge management.

The HUS Health Science Research Program responds in particular to the strategic goals of HUS nursing and the requirements of health care quality systems such as *the Magnet Hospital* accreditation. The aim of nursing practice that is in line with the Magnet Hospital model is to achieve excellent patient care outcomes, job satisfaction of the nursing staff and good financial results for the organization.



### 3. Four priority areas for research

During the program period (2022-2025), HUS's health science research activities focus on four priority areas: excellent leadership, preconditions for the professional practice of nursing staff, practices of clinical nursing care, therapy and diagnostics as well as the high quality of health services (Figure 1). Health science research is goal-oriented, multidisciplinary basic and applied research that meets scientific criteria and responds to current challenges in the health sector. The research methods used include more and more experimental research designs (RCTs) and the development and validation of instruments (including feasibility assessments). The research makes use of data collected from various clinical measurements, registers, questionnaires, interviews and documentation.



**Figure 1.** Priority areas for health science research in 2022–2025.



## 3.1 Excellent leadership

The basis for excellent leadership is the HUS Strategy 2023–2027, according to which HUS promises the best patient experience in Finland through high-quality, equal and cost-effective services, is the most desirable employer in healthcare sector, and the best university hospital in the Nordics. Excellent leadership is also based on the HUS Nursing Strategy, according to which leadership ensures the competence and job satisfaction of the nursing staff. In a changing environment, leadership centers on promoting and maintaining the quality and patient-orientation of patient care and the attraction and retention power of the hospital, taking into account the diversity of patients and the organization. Commitment to development in line with the Magnet Hospital model means developing high-quality participatory leadership. The aim of excellent leadership is to promote integration of and cooperation between social and health services. Excellent leadership is central in implementing and reflecting the values of the organization.

Leadership research covers a wide range of different topics which are linked to ongoing strategy and development projects and relate to, for example, leading employees of different cultural backgrounds, ages and life situations. Leadership research increases the organization's ability to support its management staff at different levels in quality leadership. In addition, it supports knowledgebased management to ensure the quality of care, optimal staff structure and resourcing, and competence.

**During the program period, the focus of the research is on the following topics:**

- **Leadership in increasing and maintaining the organization's attraction and retention power**
- **Leadership in promoting and maintaining patient/customer-orientation**
- **Leadership in ensuring the job satisfaction of nursing staff**
- **Leadership in a changing and diverse operational environment**
- **Leadership in integration of and cooperation between social and health services**



## 3.2 Preconditions for the professional practice of nursing staff

According to HUS nursing professional practice model, quality professional practice consists of genuine caring, comprehensive care, autonomous action by nursing staff as well as interaction and cooperation with colleagues, teams, other professional groups and patients and their relatives. Ensuring the preconditions for the professional practice of the nursing staff is a means of responding to changes in the operational environment, such as changes in the service system, changes in the age structure and health of the population, and the integration of technology into nursing care. Developments in science and education change the professional operational environment and competence requirements of the nursing staff. The increase in multiculturalism in the workplace brings new demands on the professional practice of the nursing staff.

In Finland, the law provides for the guaranteeing of the preconditions for professional practice and the reinforcement of competence in the health care sector. The HUS Strategy (2023–2027) also requires this with its goal: “High-quality education and research and the integration of results into our daily work will improve”. In terms of the preconditions, quality and effectiveness of the professional practice of nursing staff, research evidence is needed on areas such as student guidance, the orientation of new employees, professional transitions and co-operation between professionals.

**During the program period, the focus of the research is on the following topics:**

- **The impacts of digitalization on the professional practice of nursing staff**
- **High-quality and effective student guidance**
- **High-quality and effective orientation of new employees**
- **High-quality and effective support for professional transitions**
- **Effortless and seamless cooperation in professional practice**
- **The impacts of multiculturalism on the professional practice of nursing staff**



## 3.3 Practices of clinical nursing care, therapy and diagnostics

Specialized health care is responsible for the patients who are the most unwell and in need of the most demanding care. HUS has a national obligation to treat rare diseases and carry out related interventions. The choice of nursing care, therapy and diagnostic interventions for patient care must be evidence-based and, therefore, research evidence is needed on the benefits and efficiency of different interventions in all HUS operational environments. In addition, HUS is committed to the Magnet Hospital model, which calls for the continuous accumulation of research evidence in clinical care and rehabilitation, among other things.

The Ministry of Social Affairs and Health's Decree 12/2024 on the funding of university-level health research highlights clinical and health science research as one of the three priority areas. At HUS, close cooperation with researchers and nursing staff makes it possible to investigate problems that arise in connection with patient care. Close cooperation with the nursing staff increases awareness of the research being carried out and encourages a positive attitude towards research.

The research focuses on methods and assessment of clinical practice. In addition, it focuses on evidence-based practice, in particular the implementation of research evidence and the outcomes of evidence-based practice. The research generates information for the provision and development of effective research-based nursing care, therapy and diagnostics.

**During the program period, the focus of the research is on the following topics:**

- **Validation and development of instruments used in the assessment of a patient's clinical condition**
- **Assessment of a patient's functional capacity and health-related quality of life**
- **Development and assessment of evidence-based clinical interventions and approaches**
- **Development and assessment of clinical nursing processes**
- **Assessment of evidence-based practice**





## 3.4 High quality of health services

As Finland's largest provider of specialized health care and as a research organization, HUS offers a wide range of possibilities for studying the quality of health services. HUS's vision is to be the best university hospital in the Nordics.

The strategic goal of HUS's nursing is high-quality and safe patient care. Quality comprises the priority areas of patient safety, access and timeliness of care, efficiency of care, effectiveness of treatment methods, patient experience and staff competence. The quality of care is systematically measured and monitored from the perspectives of patient experience, clinical experience, the operational environment and research evidence.

The quality of care must constantly be improved and developed by utilizing patient feedback and participatory activities and by identifying variations in nursing processes. The high quality and effectiveness of care is ensured through systematic research and development. At HUS, the interest of health science research is to investigate the assessment and development of the quality of care from the perspective of the users of specialized health care services. The results of the research are used to monitor and develop the quality of health services, patient-oriented care culture and various indicators measuring the quality of care. The research on quality provides new evidence-based information for patient care.

**During the program period, the focus of the research is on the following topics:**

- **Assessment of patient and customer experience and development of assessment methods**
- **The impacts of patient and customer participatory activities on patients, the staff and the organization**
- **Assessment of nursing-sensitive quality of care, patient safety and related factors**
- **Effectiveness of nursing care, therapy and diagnostics from the perspective of patients, the staff and the organization**



## 4 Research practices

The health science research carried out at HUS is of a high ethical standard and quality and conducted in cooperation with both internal and external stakeholders. Among the key partners are national higher education institutions and research institutes. HUS also strives to engage in increasing international research cooperation. During the program period, the timely publication of research results in different publication channels, such as international and national peer-reviewed journals, is supported, with an emphasis on open access publication. The dissemination of research evidence to healthcare professionals in a timely and easily usable format is also promoted.

HUS research services support high-quality research by providing training and creating conditions for research. The research services provide customer-oriented information services, primarily for researchers, such as diverse research environments, research management systems and other electronic services that support researchers at all stages of the research process.

In 2020, HUS initiated research panel activities, which aim to promote high-quality research. The research panels assess medical, therapeutic and health science research from the perspective of the subjects of the research. Researchers can ask the panel members to assess, for example, the clarity of a trial notice, the consent to be signed by the subject or the details of the research plan.

**More information on HUS research services is available at: [hus.fi/tutkijalle](https://hus.fi/tutkijalle)**

**More information on the research panels is available at:  
[hus.fi/tutkimus-ja-opetus/tutkijan-palvelut/tutkimusraadit](https://hus.fi/tutkimus-ja-opetus/tutkijan-palvelut/tutkimusraadit)**



Research permission for medical and health science research and theses is applied for via the electronic Researcher's Desktop system. The Researcher's Desktop covers the entire research permissions process, from applying for an Ethics Committee approval, research permission and data consent to obtaining information on the progress of the permissions process.

**Electronic services help researchers at all stages of the research permissions process: [tutkimusneuvonta@hus.fi](mailto:tutkimusneuvonta@hus.fi)**

To support the implementation and development of evidence-based practices, HUS established the Nursing Research Center at the beginning of 2019. The Center's mission is to promote the production of nursing and health science research evidence that benefits patients and to strengthen HUS as a pioneer in the utilization of research evidence. The HUS Nursing Research Center provides a resource for both strategy-driven research and development at the unit level. The Center's resourcing is implemented in the form of project planner vacancies. In addition, the HUS Nursing Research Center supports scientific research by annually inviting applications for researcher months (doctoral and post-doctoral research). The Research Center also supports HUS health science research activities by reinforcing the research skills of the nursing staff and by coordinating HUS's networks of doctoral researchers and doctors with a nursing background.