## **University Nursing Home in Agder**

 A platform for research, innovation and collaboration on the future of health and care services. An investigation into the potential for a university-affiliated nursing home at Campus Grimstad



Silje Bjerkås (Project Manager), Mariann Fossum, Hilde Marie Aas, Gro Elisabeth Lundevik, Tonje Flo, Tina Fabricius, Khuram Adil Rai



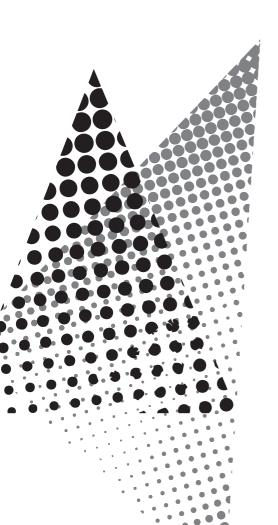






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Centre for Care Research









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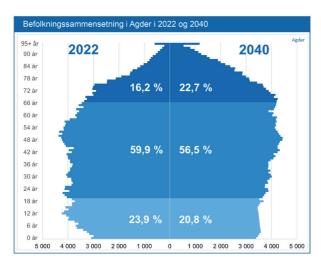
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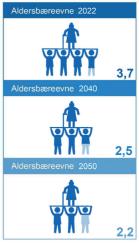
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# BACKGROUND FOR THE INVESTIGATION OF A UNIVERSITY NURSING HOME

The projected demographic development indicates that the population structure is moving towards a higher number of elderly and fewer young people. This means the age-dependency ratio is declining. The age-dependency ratio is defined here as the ratio between the number of people of working age (20–66 years) and the number of retirees over 67. In Norway it is estimated that this ratio will drop from 3.9 today to 2.5 in 2040. It is also noted that the population over the age of 80 in Agder County increased by 19.5% from 2000 to 2020 and is expected to more than double (117%) from 2020 to 2040.





https://agderfk.no/agdertall/presentasjoner/overordnede-presentasjoner-for-agder/

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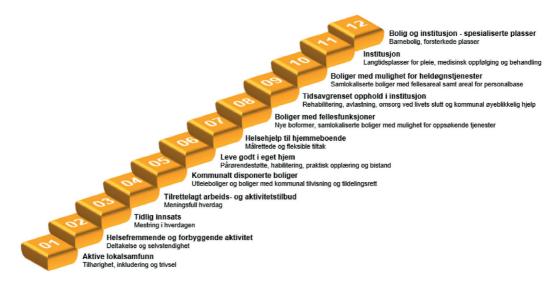
The rapid demographic aging, particularly among those over 80, will significantly increase the demand for health and care services. Comprehensive and appropriate services delivered at the right time will be essential to meet this growing need.

Several municipalities use the "effort ladder" model to prioritise activities and early interventions. This model helps clarify how municipalities can develop sustainable services for children and youth as well as for health and care services. Sustainability is often linked to the ideal of sustainable development, and to assess sustainability, the balance between environmental, social and economic factors is considered.

To meet the rising demand and provide quality and safe services across all levels of the effort ladder, it is important for municipalities to focus on and develop innovative services situated at the lower levels of the ladder.

The quality of services is influenced by the competence of healthcare personnel. There is a particular shortage of qualified workers in healthcare, construction and ICT. Changes in technology, climate, and demographics lead to new competency needs. Sustainability in education is important, including increased relevance to working life in educational offerings. There is also a need for greater competence regarding users' needs. Universities, university colleges and institutions offering higher vocational education have a special responsibility to collaborate with hospitals and municipal services to ensure appropriate final competencies in health education programmes.

To ensure high-quality services, systematic efforts must be made in knowledge development. Prioritisation challenges are increasing and require municipalities to work in new ways. The public sector is undergoing a transformation, with requirements for higher quality with fewer resources, options for individual adaptation, cross-sector collaboration, and the use and development of new technology. Partnerships between educational institutions, industry, and municipalities, as a university nursing home would represent, can strengthen collaboration and innovation within municipal healthcare services.



#### 1.1 DELIMITATION

This report investigates the opportunities and challenges, as well as what should be included in the concept of a "university nursing home".

A university nursing home is defined as a facility offering both short-term and long-term stays, in close connection with a university and vocational college. The focus should be on research, development and innovation, while also being a desirable place to live and work.

For short-term stays, the goal is to provide effective treatment and assistance so that users experience mastery and are able to continue living in their own homes. These stays may be in-patient or involve day-patients with outreach follow-up.

To ensure that residents can live safely at home for as long as possible, it is essential to think holistically about all aspects of healthcare services. Cooperation around the early stages of the effort ladder, before institutionalisation, is important for maintaining sustainable healthcare services. Although the report retains the title "university nursing home in Agder", it is recommended that future work take a broader approach to collaboration across more parts of the healthcare system, beyond just focusing on municipal inpatient care services. This includes cross collaboration with other health service providers such as specialist health services and general practitioners.

The report includes the spectrum from vocational college to university, but in the future, the entire educational spectrum within healthcare, from care workers to physicians, should be considered in greater detail.





Grimstad municipality, the University of Agder (UiA), and the Vocational college in Agder (FiA) have entered a collaboration to explore the possibilities of establishing a university-affiliated nursing home on or near Campus Grimstad. Each party has different needs and goals they wish



to fulfil through this cooperation. A shared understanding of the necessity for, and ambition towards increased interdisciplinary collaboration and increased research and innovation in the health professions is central to this work.

Public and private actors in Agder have a long tradition of working together to achieve common goals. Together, we have successfully established a university, developed important infrastructure, and built the i4Health facility, which has become an important service provider in the region.

Our ambition has been to create a relevant meeting place and service provider for private businesses, academia, and the public sector so they can engage in interdisciplinary research, innovation, technology testing, and development of new tools for healthcare. Expanding the initiative at the campus to include short-term nursing home stays would enhance synergistic effects. A university nursing home at Campus Grimstad could also act as a catalyst for further development of future healthcare services in collaboration with other healthcare service providers.<sup>2</sup>

#### 2.1 GRIMSTAD MUNICIPALITY

For Grimstad municipality, innovation and developing new approaches to address increasing demands and a declining age-dependency ratio are central. To respond to future demographic changes in Grimstad, more nursing home spaces must be built, while also focusing on innovation and service development, recruitment, competence, early intervention, and collaboration. The municipality currently has 110 nursing home places, including both long- and short-term stays. It is expected that this will increase to 150 before 2025, and by 2050, the need will more than double, to nearly 350 places.



<sup>&</sup>lt;sup>2</sup> #vårtagder - Regional struktur for samhandling i Agder - Agder fylkeskommune (agderfk.no)

In a short-term ward, the focus is on enabling patients to return home quickly, and close collaboration with several other units is crucial. Mastery, rehabilitation, assistive devices and technology will be central, with the goal of aiding residents in remaining safely at home for longer. In a nursing home, there will also be a need for advanced treatment and medical follow-up. This can provide excellent training opportunities for medical students and trainees, advance practice nurses (AKSs), nursing students, and other healthcare professionals in training.

Moreover, it could be a valuable setting for innovation, research, and development of new work methods to meet future challenges, in cooperation with other actors already based on the campus. By establishing a nursing home at the campus, the municipality would increase capacity while also benefiting from the synergy effects of having multiple health services located together. This increased nursing home capacity is anchored in the municipality's investment budget, with funds allocated for this purpose.

In 2019, the municipality moved several services to the i4Health building at the campus. Home services and rehabilitation, intervention teams, service offices, habilitation and development departments are located on-site, in addition to a gym for service users. The municipality is also considering placing a GP office at the campus, as Grimstad needs more GP offices. A competence-based GP office could be established to work practically and academically with a university nursing home, with several doctors having defined tasks related to professional development and research.

#### 2.2 UNIVERSITY OF AGDER (UIA), CAMPUS GRIMSTAD



At Campus Grimstad, UiA staff and students are mainly engaged in the health, technology, and engineering fields. The campus mainly consists of two large buildings dedicated to collaboration with society and industry, and innovation laboratories within health and technology (i4Health and

Mechatronics Innovation Lab, "MIL"). The Campus Development Plan 2020–2035<sup>3</sup> describes how the future layout of the campus can support UiA's strategic goals and align with broader relevant requirements and guidelines of the university.

The Centre for Care Research, South, the Centre for e-health, and i4Health AS are in the i4Health building at the Grimstad campus. Students enrolled in the master's programme in Advance practice nurses (AKS), the master's in health informatics, the bachelor's in nursing, and various continuing and further education courses in health conduct much of their training in the clinical lab, classrooms, and group rooms on the Grimstad campus. It is also relevant to involve other relevant faculties based on needs and relevance.

In many health and social education programmes, extensive and varied practical training is a requirement for achieving the learning outcomes. A NOKUT report points out that the quality of practical placements at national educational institutions is often perceived as inadequate. NOKUT highlights that collaboration with both practice fields and students is essential for ensuring high-quality training<sup>4</sup>. The healthcare challenges of service development are numerous

- 3 Campusutvikling Universitetet i Agder (uia.no)
- 4 NOKUT rapport 2019

ranging from the adoption of new technology, but also when it comes to task distribution between the different professional groups in the health service.

Workplace relevance is central to all educational programmes, and successful societal outcomes require cooperation between educational institutions and workplaces. A collaboration around a university nursing home could enhance the quality of practical training and the development of healthcare services, allowing education programmes, research projects, and CFE offerings to be developed closely between education providers and healthcare services.

The Campus Development Plan identifies five main focus areas that the development must address. Several of these support the investigation and potential establishment of a university nursing home on or near the campus. The campus as a learning arena must adapt to future teaching needs. Furthermore, the campus should be an attractive environment for co-creation, interdisciplinary collaboration and innovation, and should facilitate both external presence and interdisciplinary collaborative environments.

#### 2.3 VOCATIONAL COLLEGE IN AGDER (FIA)



The vocational college aims to be a preferred provider Fagskolen of higher vocational education for skilled workers in the regional labour market and, to some extent, nationally. Its mission is to develop and offer high-quality education in line with societal needs. FiA is within walking distance of UiA

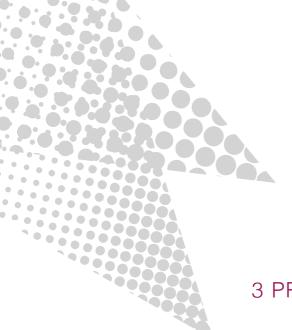
and has modern facilities with updated technological and digital solutions. The college offers higher vocational education providing specialisation in various professional areas. It offers



courses in technical subjects, maritime subjects, management studies, and health and childhood education. The vocational college's study programs in health subjects include 'Mental Health and Substance Abuse Work', 'Holistic Environmental Work', 'Maternity and Childcare', and 'Welfare Technology for the Health and Care Services'.

A new programme titled "Clinical Health Assessment – Simulation and Skills Training" is currently under development.

FiA has a long tradition of working with municipalities in Agder to develop the skills of health care workers and can contribute to addressing the challenges mentioned in this report. A university nursing home could be a valuable arena for specialisation and increased competence for this professional group, healthcare expertise that will be carried into the broader health services.



# 3 PREMISES FOR A UNIVERSITY NURSING HOME

Currently, there are no formal requirements to use the term "university nursing home", and there is no legislation specifically addressing it. This has also been confirmed with the Norwegian Directorate of Health. Nevertheless, it may be useful to establish some premises for applying the designation "university nursing home". For university hospitals, the following conditions apply:

The health trust and/or hospital must collaborate with one or more universities that graduate medical professionals and other healthcare personnel.

- 1. It must contribute significantly to research-based education in medicine and other health-related programmes.
- 2. Candidates must complete most of their practical and theoretical training at the hospital.

It must contribute significantly to doctoral education in most clinical fields within medicine and other healthcare disciplines. It must be possible to document that biomedical and healthcare-related basic research, translational research, and clinical research is being conducted in most clinical areas. It must be possible to document research activity of high international quality and breadth.

These conditions for university hospitals are used as a starting point to discuss the premises for using the term university nursing home. To use the term university nursing home, it should be a prerequisite that the nursing home contributes significantly to research-based education in medicine and other health-related disciplines.

The following conditions are recommended for the use of the term university nursing home:

- Close collaboration between municipality, university, vocational college, and other partners.
- The healthcare service must contribute significantly to research-based teaching.
- 5 <u>Universitetssykehus i Agder? (sshf.no)</u>

- Relevant students and pupils must conduct a substantial part of their practice at the university nursing home.
- It must be possible to document that healthcare-related research of high quality and relevance is carried out.
- There must be a strong focus on innovation and the use of technology in developing future healthcare services.

Close cooperation and specific agreements between the parties are essential for a university nursing home. Municipal healthcare services must actively participate in relevant research, and there should be requirements for the publication of high-quality, relevant research. Opportunities must be created for joint and recruitment positions, such as PhD and postdoctoral positions, closely tied to the work of the university nursing home. Research must be practice-oriented and address relevant challenges in the healthcare services.

Arrangements must also be made for students and pupils to carry out their practical training at the university nursing home. They should be an integrated part of the operations. Today, it is challenging to find enough placements for all health-related students in Agder county. A university nursing home could offer new models for organising placements and provide more practice opportunities in the region. Systems must also be in place for healthcare professionals to contribute to teaching at both the university and at the vocational college in Agder.

A key requirement for the university nursing home is a strong focus on innovation and the use of technology in healthcare services. Digitalisation is essential to solve staffing challenges in healthcare. In close collaboration with UiA, FiA, i4Health, and other relevant partners, the university nursing home would be well-positioned to develop and test new, relevant technologies.



#### 3.1 OTHER CONDITIONS

Time and resources should be allocated to jointly applying for funding for research and innovation projects. It is considered important that the next steps involve collaboration with funding bodies to secure external financing. These may include the Dam Foundation, Regional Research Funds, the Directorate for Higher Education and Skills (HK-dir), the Research Council of Norway, the EU and other international funding sources, along with relevant contributions from businesses and organisations.

It is crucial to have well-established shared routines and systems to ensure patient safety and data protection when working across organisational boundaries. UiA has a designated data protection officer and procedures for handling personal data in research and student projects. The Norwegian Centre for Research Data (NSD) and the Regional Committees for Medical and Health Research Ethics (REK) should be involved where required.

Sustainability is also an important factor to consider. The UN's Sustainable Development Goals (SDGs) form a global action plan to eradicate poverty, fight inequality and stop climate change by 2030. Among the SDGs, the following are particularly relevant:

- Goal 3: Good Health and Well-being
- Goal 4: Quality Education
- Goal 11: Sustainable Cities and Communities
- Goal 17: Partnerships for the Goals

Collaborating to solve future healthcare challenges is central. Efficient use of space and shared use of facilities and equipment are also essential. Clear routines must be established to achieve this.

#### 3.2 CHALLENGES

While a university nursing home can generate many positive ripple effects, there are also some challenges to overcome. Experience from other locations shows that co-location alone is not sufficient to create collaboration. Time and resources must be allocated to ensure cooperation. Partnership agreements between the involved actors should be formalised to secure progress, focus and quality in the collaboration.

Research and innovation in the municipal health and care services have increased in recent years, but will remain important going forward. The Competence Boost 2025 initiative highlights that municipal health and care services must take a more active role as initiators and participants in research, professional development, competence building, and training of staff. <sup>6</sup> The challenge lies in securing long-term funding and recruiting personnel with the right expertise. Resources must also be allocated to writing funding applications. Training and education of staff within a university nursing home will also be a challenge. The Health Personnel Commission (NOU 2023:4<sup>7</sup>), points to difficulties in recruiting healthcare personnel.

- 6 Kompetanseløftet 2025
- 7 NOU 2023:4 Tid for handling

This will also apply to a university nursing home. There is significant variation in the medical services offered at nursing homes, which requires recruitment of appropriately qualified staff to meet the increasing support needs of patients.

Another challenge is finding a suitable plot near the campus. The area currently has limited space available. A university nursing home could displace other developments near UiA. Plots adjacent to the campus are considered attractive and may be more expensive than alternative nursing home locations.

Tax regulations and other legal formalities, as well as ethical concerns, can also make cross-organisational cooperation more complex.



# 4 OTHER UNIVERSITY NURSING HOMES?

Through conversations with resource persons in the Nordic countries and Europe, attempts have been made to identify whether university nursing homes or similar concepts exist. Dialogue with key personnel at university hospitals has not revealed any such established concepts. Some have referred to Diakonhjemmet, which is undertaking a large initiative involving co-location of various services like nursing homes, home care services, colleges, and other facilities. In dialogue with the management at Diakonhjemmet, it appears that there are no concrete plans to utilize the physical co-location, but that this is an idea Diakonhjemmet intends to work further on.

The University of Bergen is a partner in the Alrek Health Cluster\*, which is an innovative, forward-thinking cluster project aimed at becoming an international hub for health research, but a university nursing home is not included in this initiative. Researchers in the Nordic countries who specialise in municipal healthcare services have been contacted, and their immediate response was that the idea is exciting, though they are not aware of any similar initiatives.

TigerPlace<sup>9</sup> in Missouri, USA, is a nursing home developed in collaboration with the University of Missouri, Sinclair School of Nursing, from 1999 to the present day. The benefits for the university, patients, students, and staff are well-documented through research projects and external research funding. However, since the concept was privately initiated and funded, its transferability to the Norwegian context is somewhat limited.

The Norwegian University of Science and Technology (NTNU) has a project called Universitetskommune running from 01.01.2022 to 31.12.2032. It is a collaboration between NTNU and Trondheim Municipality, aimed at generating both local and national knowledge to build a sustainable society. Health and welfare are part of the project, alongside cooperation on education and innovation.¹º Although health and care services are mentioned, they are not a major focus of the initiative.

- 8 Alrek helseklynge | Universitetet i Bergen (uib.no)
- 9 TigerPlace // Sinclair School of Nursing (missouri.edu)
- Universitetskommune Kunnskapsbasen NTNU

The Teaching Nursing Home Project was first concretely established through the National Geriatrics Program in 1996 and is the predecessor to today's Centre for Development of Institutional and Home Care Services (USHT). A conversation was conducted with Professor Marit Kirkevold, who initiated the Teaching Nursing Home Project in 1996, and she confirmed that there are currently no university-affiliated nursing homes in Norway. In summary, it has not been possible to identify university nursing homes either nationally or internationally—only similar initiatives that may serve as inspiration for future work.

# 4.1 TEACHING NURSING HOMES / DEVELOPMENT CENTRES FOR NURSING HOMES AND HOME CARE SERVICES (USHT)

The Development Centres for Nursing Homes and Home Care Services (USHT) is a national initiative and one of the tools for realising goals from several key parliamentary reports. The Norwegian Directorate of Health co-finances the centres and provides annual guidelines for their activities. These centres are meant to drive development in national priority areas, based on local needs. The development centres operate across all municipalities in their region and adapt competence-building efforts to needs in the municipalities. The centers shall also be a driving force for research and collaborate closely with the Center for Care Research and other research institutions. One municipality in each county serves as the host municipality for a development center for nursing homes and home care services; Grimstad Municipality is the host municipality for USHT Agder (East).

The forerunner to USHT was the Teaching Nursing Homes project, and from 2006, Feviktun was one of the first such nursing homes in Norway. The main focus then was on training, competence, and high-quality practice placements. A national initiative for Teaching Nursing Homes



was first proposed in the National Geriatrics Programme, issued by the Norwegian Board of Health Supervision in 1996. The Institute of Nursing Science at the University of Oslo received

Om oss (utviklingssenter.no)

funding from the geriatrics programme to develop a national plan for Teching Nursing Home. The idea of teaching nursing homes originates from Teaching Nursing Homes in the USA.<sup>12</sup>

When the ideas for Teaching Nursing Homes emerged in the late 20th century, the intention was initially to establish university nursing homes. Marit Kirkevold was one of the initiators of this effort, but according to her, the timing was not right back then, and there was insufficient research competence in geriatrics. Over the past few decades, however, research expertise in geriatrics has increased, making the establishment of university nursing homes more feasible. In a university nursing home, the focus on research will be more central than it was in the teaching nursing homes.

Historie (utviklingssenter.no)

# 5 INVESTIGATING THE UNIVERSITY NURSING HOME AS PART OF THE FUTURE HEALTH SERVICE

The healthcare service is facing substantial demands and challenges in terms of restructuring and skill development. Tasks must be handled in the most effective and resource-efficient way possible. Competence must be applied where it is needed, and nurses performing tasks that healthcare workers are equally qualified for should be avoided.



Future-oriented learning environments highlight the need for more interdisciplinary collaboration, practice-based and project-organised interaction with working life, and more open and social arenas.

White Paper No. 16 (2020–2021) emphasises the universities' responsibility to prepare students for a society and working life undergoing transformation. A broader and more systematic collaboration between higher education and the labour market is a prerequisite for success.<sup>13</sup>

A university nursing home where researchers and various levels and types of education work closely with healthcare services can contribute knowledge and a greater understanding of collaboration across competence levels in the health and care sector. Systematic work on task distribution is one of several strategies to ensure sustainability and sufficient qualified staff in future healthcare services.

#### 5.1 RESEARCH AND INNOVATION

UiA, the municipalities in Agder, and Sørlandet Hospital Trust (SSHF) already have a strong research collaboration, but a university nursing home could further enhance the opportunities for healthcare research in Agder. The municipalities in Agder hold the status of Regional Collaborative Body for the initiative known as the Municipal Strategic Research Organisation (KSF). This organisation was established in 2017 to strengthen research, innovation, and education within the municipal health and care sector.

UiA is competing nationally and internationally to secure favourable framework conditions for more student-active teaching and more excellent research.<sup>14</sup> Recruiting staff with professional education and doctoral degrees for teaching and research positions in health and social education is particularly challenging. Norway is shifting from a system where one studies first and then works, to one in which lifelong learning and concurrent employment are more typical. Continuing education and training (EVU) should be prioritized and directed toward the need for increased competence in society.<sup>15</sup> Developing a common arena for research and innovation can contribute to an innovative public sector, which society needs to address major societal challenges.<sup>16</sup> This particularly applies to students, healthcare personnel, and other teaching staff.

Digitalisation affects healthcare broadly – from diagnosis and treatment to follow-up, logistics and research. The rapid technological development in working life is also a reason why lifelong learning is crucial. Universities, colleges, and vocational schools will need to contribute tailored CFE in this context<sup>17</sup>. A university nursing home could contribute to innovative educational programmes as well as a CFE offering that meets the needs of its target audience and society at large.

Increased use of welfare technology is considered one of the key factors for successfully addressing the challenges of a declining age dependency ratio. New technology can lead to better

- <sup>13</sup> Meld. St. 30 (2019–2020) (regjeringen.no)
- 14 RETHOS: Fremdriftsplan regjeringen.no
- NOU 2020:2
- <sup>16</sup> Meld. St. 30 (2019–2020) (regjeringen.no)
- NOU 2020: 2 (regjeringen.no)

services and make working in healthcare more attractive. A university-affiliated nursing home could serve as a direct pathway from "lab" to end-user. Several labs have already been established on campus and in the i4Helse building, and i4Helse AS has developed a broad range of services. With these tools and services, combined with a university nursing home, it would be possible to test solutions in real-life laboratories. Students would also gain exposure to digitalization and welfare technology within the healthcare sector.

# 5.2 RECRUITMENT AND PRACTICAL TRAINING PLACEMENTS

The need to recruit workers for the health and care services will increase significantly in the coming years. More than half of the municipalities in KS' Employer Monitor 2021 report that recruiting nurses is "very challenging." Recruiting other healthcare personnel is also difficult, according to the municipalities and Agder needs healthcare professionals in all categories. Innovation in work organisation and the use of welfare technology could reduce this high demand for labour, according to KS. Good internship placements with professional variety, challenges, and opportunities for development in the work have been highlighted as particularly relevant for recruitment. 19

There is a growing challenge in recruiting medical doctors. To succeed with physician recruitment in Norway, more of their training must take place in municipal healthcare services. Cooperation between the municipalities offering placements and the educational institutions is essential to make this happen<sup>20</sup>. Agder is well-positioned to succeed, and a university nursing home could positively influence recruitment to the region. UiA currently has no plans to establish a medical programme, but instead wishes to contribute to establishing alternative models that enable medical students to complete parts of their education in Southern Norway.<sup>21</sup>

Medical students coming to Southern Norway will benefit from rich learning environments and contribute essential skills to the healthcare services and the local population.

The Faculty of Medicine at the University of Oslo (UiO) and SSHF have signed an agreement to make Southern Norway an attractive study location for medical students, known as Campus South. Placement of 5th-year medical students began in autumn 2023 at Sørlandet Hospital through a collaboration between SSHF, UiO, and UiA. Their goal is for more future doctors to take parts of their education in the region. If more students train in Southern Norway, more physicians and other health professionals are likely to settle here after completing their studies and work either at one of the hospitals or in the municipalities in Agder. A medical office connected to the university nursing home will also contribute to internship placements and recruitment.

- Har kommunene store utfordringer med rekruttering av sykepleiere? KS
- 19 Rapport-Hvordan-rekruttere-nyutdannede-sykepleiere-NORCE-UiA-KS-Agder.pdf
- 20 UHR Rapport Fokus på praksistudiene i helse- og sosialfagutdanningene
- Sørlandet har alle forutsetninger for å utdanne morgendagens leger Debatt og kronikk Dagens Medisin
- <sup>22</sup> <u>Velkommen til UiO Campus sør Medisin (profesjon) Universitetet i Oslo</u>

Interprofessional practice for students from various disciplines and professions will be relevant in a university nursing home. For example, the University of Oslo has had positive experiences with nursing homes as learning arenas for *Sampraksis*<sup>23</sup>, an interdisciplinary practice where cross-disciplinary thematic work is emphasized.

Internship placements are a barrier in many health and social care education programs.<sup>24</sup> Many municipalities face challenges in offering enough placements. Since 2017, all health and social care education programs have been subject to new national regulations (the RETHOS project)<sup>25</sup>. These regulations define the final competencies for each program, which constitute a minimum standard of competence. The bachelor's program in nursing includes 50% of the study in practice, and high-quality placements in municipal health services are particularly important for recruitment and competence development in this part of the health service going forward.<sup>26</sup>

The RETHOS project has opened the door for extensive changes in health and social care study programs nationwide. These changes provide greater opportunities to explore what the municipal health service can offer in terms of internships for health students, thereby also increasing the potential for recruitment to the municipal health sector.

As technology will play an increasing role in how we meet the demand for healthcare services in elderly care, another contribution to the development of elderly care services will be to create good arenas for collaboration. Educational institutions must create more environments where students across disciplines can meet both informally and formally. They can work together based on shared interdisciplinary internships at a university nursing home and increasingly through joint studies rooted in multiple interdisciplinary study paths. Such environments can in turn contribute to increased interdisciplinary research within the health sciences.

Opportunities for attractive and professionally relevant part-time jobs at a university nursing home will help UiA attract more of the best students. Such opportunities for professional learning early in their careers can help ensure that students remain in the profession.

There is a need for more practice-oriented research in the municipalities. Recruitment to municipal PhD positions may become easier with the establishment of a university nursing home on the campus. At such a facility, more PhD candidates could choose to research relevant areas within the municipal health service. To realize this, the university, the Southern Norway Hospital Trust (SSHF), and the municipalities in Agder must collaborate on the allocation of research positions and jointly develop research projects that form the basis for applying for and receiving external funding.

<sup>23</sup> SamPraks - Sammen i praksis - SamPraks - Sammen i praksis (uio.no)

<sup>24</sup> Hdir Rapportmal-gjeldende.him 19.06.19 (helsedirektoratet.no)

<sup>25</sup> RETHOS

NOU 2020: 2 (regjeringen.no)



# 6 WHY A NURSING HOME AT THE UNIVERSITY OF AGDER?

To meet demands for restructuring and skills development in the health and care sector, collaboration and innovation are essential for success. Research and innovation—in and with municipalities, including user involvement—can help employees and leaders understand and improve work processes. The evolving competence requirements for health personnel, driven by technological advancements, increase the need for innovation arenas such as a university nursing home.

A university nursing home could become a unique platform where municipalities, educational institutions, and the private sector collaborate, share experiences, develop joint research projects, enhance existing programmes and create new educational programmes. This collaboration may help solve major societal challenges through interdisciplinary, innovative, and flexible education in areas such as health technology and health economics. Agder can be the first county in Norway to establish a university nursing home. This can generate national and international attention and contribute to increased collaboration in research and the development of new health services.

For educational institutions, vocational colleges and universities, there is significant pressure to educate enough healthcare personnel with the right skills. Rapid advancements in medical and technological fields require increased competence across all health professions. Collaboration between healthcare services and educational institutions can enhance both relevance and quality of education, while also potentially increasing capacity.

A university nursing home located near the i4Health building could serve as a regional research hub with a clinical lab and real patients. i4Health is located on the Grimstad campus and is close to UiA and the Mechatronics Innovation Lab (MIL).<sup>27</sup> Morrow Batteries is currently building an innovation lab on the same campus.<sup>28</sup>

At the i4Health building, the intention is to foster collaboration between the University of Agder (UiA), i4Helse AS, municipalities, hospitals, industry, service providers, and users in the

<sup>27</sup> Mechatronics Innovation Lab | Teknologi - Kompetanse - Nettverk (mil-as.no)

Morrow Batteries etablerer innovasjonssenter og pilotfabrikk | Agder Energi (ntb.no)

areas of technology, innovation, health research, and practice. The building includes a demonstration arena for welfare technology, a housing simulator, testing and training facilities, as well as offices and meeting rooms. On the third floor, the Centre for Development of Institutional and Home Care Services (USHT) in Agder (East) shares a corridor with the Centre for Care Research South, i4Helse AS, the Centre for eHealth, and the Southern Norway Hospital Trust (SSHF), among others.

Although the collaborative arena through i4Health has been established, cooperation does not happen automatically. It appears that more effort is needed to make the collaboration function better. A university nursing home, combined with several associated research projects, could serve as the arena where collaboration is compelled—since all actors must relate to the same patients, physical spaces, and service offerings.



# 7 LOCATIONS FOR A UNIVERSITY NURSING HOME

A university nursing home should be an arena with a high degree of collaboration.

Research supports<sup>29</sup> that location influences how well collaboration can develop and function. Therefore, it is desirable to place the university nursing home as close as possible to the i4Health building. The initial idea was to locate the university nursing home in new floors added to the existing i4Health facilities. This was investigated, and the building owner informed that the current structure is not designed to support such an extension. Structurally, it may be feasible, but it would likely be disproportionately expensive, as it would require significant reinforcement of the existing building. Possibilities in the zoning plan or other restrictions have not been examined. Since this option is most likely not viable, it is recommended that the next phase include a detailed assessment of other possible locations near the campus.

A fully integrated university nursing home on campus, connected to existing buildings, is ideally preferred by Grimstad Municipality. Academic environments at UiA are positive toward and see several opportunities in establishing a university nursing home. Key criteria include walking distance and dedicated areas within the nursing home for conducting research and supervising students in practice.

The Grimstad campus has somewhat limited remaining land available for development. UiA's campus development plan forms the basis for future upgrades and construction projects on campus. The design of the campus sets important and significant guidelines for how UiA is experienced as a place of learning and work for its users.

After high-level discussions with many stakeholders about the pros and cons of different locations for a university nursing home, it has been clarified that building it on campus is not feasible. UiA needs sufficient space to develop its operations over the next 20–30 years. The university has experienced significant growth in recent years and cannot predict what the future holds. It is important that all development connected to the main building has a strong academic foundation and is closely tied to the university's core activities. UiA believes that both the

<sup>&</sup>lt;sup>29</sup> Geographic Proximity and Science Parks | Oxford Research Encyclopedia of Economics and Finance

university and Grimstad Municipality share an interest in ensuring that UiA has the space to continue developing in Grimstad.

UiA therefore wishes to retain the remaining areas, including the plot behind i4Health and the parking lot south of the main building, for the university's own operations. The working group recommends that the next phase include an assessment of various plots in connection with the campus, preferably along the axis between the Vocational College in Agder and Campus Grimstad. It is considered most appropriate to place the university nursing home within this axis and within a radius of less than 1 km from UiA, although other locations may also be considered.



#### 8 SUMMARY

This report has assessed the prerequisites, challenges, opportunities, and added value of establishing a university nursing home. In this report, a university nursing home refers to a facility affiliated with a university, with a focus on research, innovation, and collaboration.

There are no formal requirements for using the term *university nursing home*, and no such facilities currently exist in Norway or Europe. This gives Agder the opportunity to be the first county to establish a university nursing home. The following conditions are recommended in this report for the use of the term:

- Close collaboration between the municipality, the university, the vocational college, and other partners
- The health service contributes significantly to research-based teaching
- Relevant students and pupils complete a large portion of their practical training at the university nursing home
- It must be documented that high-quality and relevant health research is being conducted
- There is a strong focus on innovation and the use of technology to develop future health services

Demographic changes require that health services be delivered in new ways, and collaboration is needed for innovation and service development. There is a great need to educate, recruit, and retain healthcare personnel. Cross-sector collaboration can provide a foundation for developing sustainable services, innovation, and recruitment. In Agder, strong collaborative structures have already been established, providing favorable conditions for successful co-creation.

A university nursing home in Agder can contribute positively to addressing future challenges in several areas. An interdisciplinary professional environment can have a significant impact on recruitment, innovation, and research. A university nursing home located near the campus could greatly enhance the development of such an interdisciplinary environment. This could attract new students who wish to settle in the Agder region. Working in municipal healthcare could gain higher status, making it easier to recruit healthcare personnel to the sector.

A university nursing home near Campus Grimstad could serve as a catalyst in shaping the future of healthcare services in collaboration with the entire Agder region. Establishing the first

university nursing home could also open up opportunities for collaboration in several areas, both nationally and internationally.

The results of interdisciplinary co-creation may lead to the creation of more attractive public and private jobs in the region. At the same time, key challenges and corresponding measures that must be implemented to achieve the goals and realize the benefits of establishing a university nursing home are highlighted. Co-location alone is not enough to ensure success. The parties must allocate time and resources, commit to, and prioritize long-term funding for the initiative. Other challenges may include legal issues such as information security, GDPR, and privacy. These are considered solvable, as the same challenges apply to university hospitals.

To ensure the effectiveness of a university nursing home, proximity to the university is an advantage. It is recommended that the facility be located in close connection to the University of Agder, Campus Grimstad—preferably within the axis between Campus Grimstad and the Vocational College in Agder—although other locations may also be considered.

#### 8.1 RECOMMENDATION FOR THE WAY FORWARD

For the next steps, it is recommended that plans for a university nursing home in connection with Campus Grimstad be anchored among the involved parties.

A site alternative must be clarified, and clear agreements and guidelines for collaboration must be established.

It should be assessed how the university nursing home will be organized and financed during the operational phase in order to fully realize the benefits of co-location. Several parties have pointed out that co-location alone is not sufficient to ensure collaboration. It is recommended that future efforts take a more holistic approach to cooperation across various parts of the healthcare service, beyond just institutional care.

In the next phase, the full spectrum of health education—from vocational school training to medical education—should be considered in more detail.

The parties must commit to allocating the necessary resources to realize the university nursing home and the healthcare services of the future. Both internal and external stakeholders must be identified in the continued work. It is proposed that the work be organized as a project, and funding must be secured. It is recommended to apply for external funding through various grant schemes. The County Governor of Agder has allocated NOK 800,000 in discretionary funds for 2023 to the project. These funds are to be used for project management and further project development for a university nursing home.

To determine the location, a natural next step would be to identify potential plots and buildings that could be further developed for the establishment of a university nursing home. For each alternative, an assessment should be made of what is required to realize the project. This will provide a basis for the parties to agree on the distribution of necessary resources and input factors to build the university nursing home.

UNIVERSITY NURSING HOME IN AGDER - A PLATFORM FOR RESEARCH, INNOVATION AND COLLABORATION ON THE FUTURE OF HEALTH AND CARE SERVICES.



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