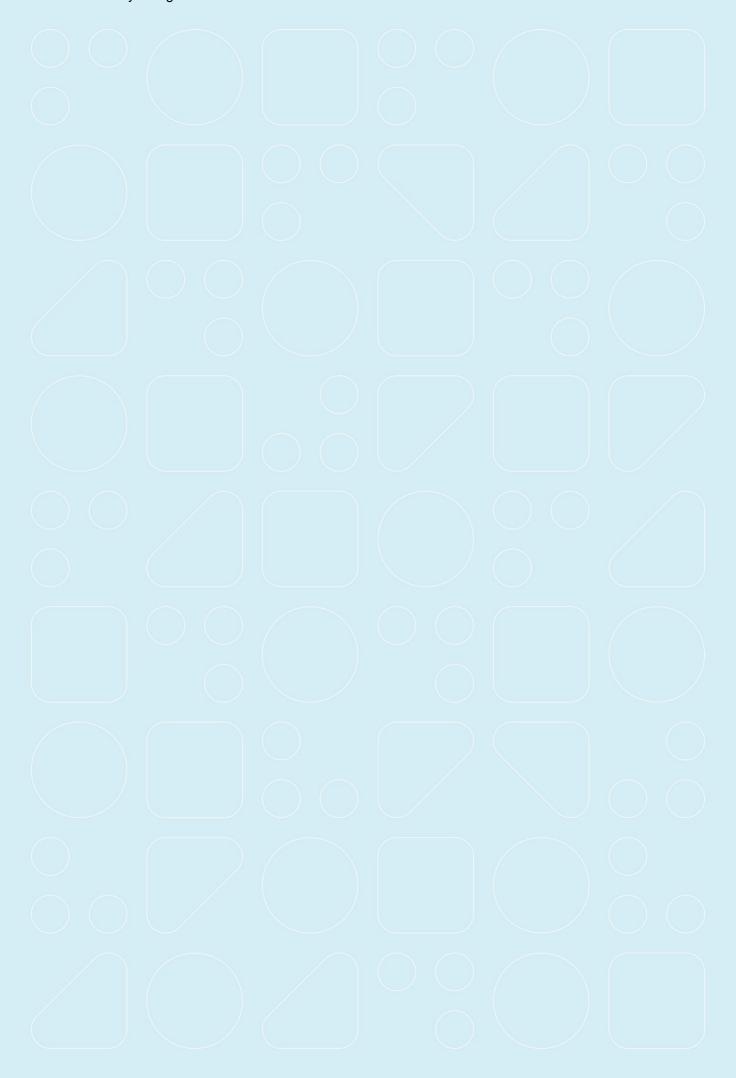


# Development plan 2040







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Summary

# Summary

In order to ensure the population in the admission area a good hospital offer in the future and to create good professional environments, Akershus University Hospital has drawn up a plan for the development of operations and buildings for the period up to 2040.

The needs of the patients and the core business are the driving force behind the development plan. Economic sustainability will be decisive for the implementation of the measures that have been proposed. The tasks must be carried out in a way that creates scope for further development.

Offers on diagnostics and treatment must be gathered around the patient

# **FIVE MAIN OBJECTIVES**

Akershus University Hospital will meet the challenges up to 2040 with the help of five main strategic goals:

- I. Strengthen the patient
- II. Create good and safe patient processes III.

Strengthen specialized patient care

IV. Ensure sufficient personnel with the right skills V. Improve patient care through research and innovation

# THEMATIC AREAS OF INVESTMENT

Offers on diagnostics and treatment must be gathered around the patient. In the period leading up to 2040, five thematic investment areas have been chosen:

- The elderly patient
- Acutely and critically ill patients Cancer diagnosis and treatment
- Mental healthcare and substance abuse treatment
- Children and young people

The thematic approach is about a working methodology where professionals collaborate across professional pillars, specialties and organizational units to provide the best possible offer to the patient. This will contribute to better patient safety and resource utilization, while at the same time facilitating professional collaboration, research and competence development to solve some of society's biggest health challenges. Within the thematic focus areas, emphasis will be placed on working holistically to achieve the development plan's main goals.

# GOOD AND SAFE PATIENT PROCESSES

The health service must be developed with the patient at the centre. Patients must be able to influence decisions related to their own examination and treatment. Patient processes must be predictable and well coordinated. The interaction with other parts of the health service must be further developed, so that the patients feel that the offer at the different levels of treatment is coordinated and of high quality.

Several comprehensive services are to be established, so that patients do not have to travel to other hospitals to receive parts of the examination and treatment. This will involve strengthening existing services, including through the acquisition of medical-technical equipment and the establishment of some new functions. Furthermore, new work processes and the use of technological tools will contribute to a better patient service.

#### ATTRACTIVE WORKPLACE

The right mix of skills and good teams are necessary to provide high-quality health services. Changes in work processes and technological development will also require new skills. Further developing, retaining and attracting competent employees will therefore be central. Plans and measures will be developed in close collaboration between employees and managers, and in collaboration with educational institutions, municipalities and other health organisations.

# NEW WORK PROCESSES AND USE OF TECHNOLOGY

Technology will be a central tool for meeting an increased need for specialist healthcare services, and will create new opportunities both for patients, employees and the organization of the business.

Technological solutions must contribute to the hospital being able to further develop and improve patient services, as well as facilitate comprehensive patient processes across hospitals and levels of care. In order to achieve the greatest possible benefit for patients and employees, good plans must be made to adapt operations to a new everyday life.

### **ESTABLISHED AS A UNIVERSITY HOSPITAL**

Investing in research, innovation and education will be the driving force for further development, and must be closely integrated with patient care.

The university hospital function is to be strengthened, among other things, through clinical research along the large patient flows, and through the establishment of arenas for research collaboration across disciplines, specialties and departments.

#### **AREAS ADAPTED TO PROFESSIONAL NEEDS**

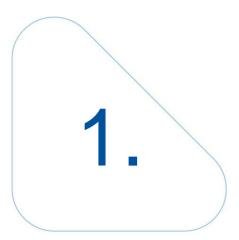
In order to meet future capacity needs and create good arenas for further development of patient services, it is necessary to construct new buildings. The dimensions of the buildings are seen in connection with the capacity needs in the capital area in general.

# ECONOMIC SUSTAINABILITY AND THE FUTURE PATIENT PROCESS

Economic sustainability is the foundation for operation and development, and existing buildings must be used optimally. It will therefore be particularly important to make good plans for the patient's future, where work processes and the use of technology will also be central.



#### Introduction



# Introduction

The core tasks of Akershus University Hospital are patient care, research, teaching and patient education. The health authority has most specialties within somatics, mental health care, drug addiction and addiction treatment. Development plan 2035 has been updated and updated in the first half of 2022, and now applies until 2040.

Akershus University Hospital HF was established on 5 December 2001, when responsibility for the specialist health service was transferred from the county municipalities to the state. The regional health company Helse Sør-East is the owner of this and ten other health companies.

The somatic activities at Akershus University Hospital are mainly located at Nordbyhagen in Lørenskog municipality. There is also somatic activity at Kongsvinger Hospital, Ahus Gardermoen and Ski Hospital.

Patient services within mental health care and substance abuse treatment are spread over a number of treatment centers in the admission area.

Health organization affiliation for all specialist healthcare in the Kongsvinger region was transferred from Sykehuset Innlandet to Akershus University Hospital from 1 February 2019, and operations at Kongsvinger are now integrated as part of the company's specialist divisions. In order to utilize the capacity as best as possible and relieve Ahus Nordbyhagen, the patient flows for easier immediate help from the municipalities of Ullensaker and Eidsvoll were changed with effect from 2 March 2020.

From January 2021, Akershus University Hospital took over the invasive cardiology activities that the National Association for Heart and Lung Disease (LHL) ran at Gardermoen.

Operations have continued in the same premises, which the health company rents from LHL. Area is also rented for elective activities and diagnostics. With its surgical activity, Ahus Gardermoen provides an important increase in the company's operating capacity.

# 1.1. TASKS AND AREAS OF RESPONSIBILITY

In 2008, most hospital functions moved into modern premises at Nordbyhagen.

Today, Akershus University Hospital is one of Norway's largest local and regional hospitals, with responsibility for 594,000 inhabitants from Romerike (11 municipalities), Follo (5 municipalities), the Kongsvinger region (5 municipalities), as well as the districts of Alna, Grorud and Stovner in Oslo municipality. The health organization is also responsible for patients from several health organizations within invasive cardiology and advanced stroke treatment (thrombectomy).

Population growth is expected to be higher in this area than anywhere else within Health South-East. In 2040, the total number of inhabitants is expected to be approximately 679,000.

In June 2016, the board of Helse Sør-Est decided to transfer the borough of Alna (50,000 inhabitants) to Oslo University Hospital, and that the boroughs of Grorud and Stovner (61,000 inhabitants) should be included in the admission area of the new local and area hospital at Aker (board case 052) /2016). According to the plan, responsibility for patients within mental health care and substance abuse treatment will be transferred collectively for all the districts in 2031. For somatics, a plan is accordingly laid down to transfer the district of Alna from 2031 and the districts of Grorud and Stovner from 2036. This will happen during 2022 a regional project is started to assess the possibilities for an earlier transfer of the districts. Adjusted for the changes in district affiliation, the number of residents in Ahus' catchment area will be approximately 545,000 in 2040.

# 1.2. UPDATED DEVELOPMENT PLAN FOR MEETING THE FUTURE OF THE POPULATION NEED

Akershus University Hospital has long been working on plans for further development, with a view to meeting the population's future needs and taking part in medical development.

The first edition of the development plan was created in 2016 and was based on the direction given in the strategic development plan 2012-2016. It set out the company's main goals and plan for the development of business and construction until 2035.

On behalf of Helse Sør-Est, work was initiated in 2021 to update the development plan. The changes in the document have been made with the aim of maintaining relevance and highlighting development needs that have arisen after the previous update in 2018. The numerical basis and text are adapted to today's business and development work.

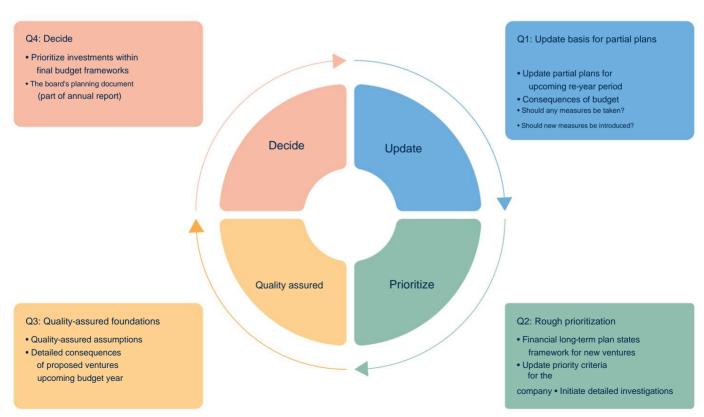
The projections have been updated. Greater emphasis has also been placed on the importance of development work within the personnel area and new work processes with the use of technology. Children and young people have been included as a new thematic focus area, in line with the guidelines in the National Health and Hospital Plan 2020-23. The chapter on development of the building stock has been replaced by a new property strategy.

As part of the work to operationalize the goals in the development plan, ten enterprise-wide sub-plan areas have been established:

- 1. The elderly patient
- 2. Acutely and critically ill patients
- 3. Cancer diagnosis and treatment
- 4. Mental healthcare and substance abuse treatment
- 5. Children and young people
- 6. Property strategy
- 7. Competence and education, recruiting and retaining
- 8. New tasks and further development of patient services
- 9. New work processes and technology
- 10. Research and innovation

The sub-plans should contribute to a more holistic planning of the development processes, and strengthen cooperation both internally and with the company's external partners. They have a four-year perspective with specific development measures, and are updated annually (figure 1-1). This will provide a good basis for prioritizing development initiatives in the budget and long-term economic plan. Priority measures will be made visible in the board's planning document, which is part of the company's annual report to Helse Sør-Öst.

Figure 1-1: Year wheel





# Status and challenge picture

Norwegian society will undergo major changes until 2040.

The hospital exists for the users, and it is necessary to develop the offer according to the patients' needs.

#### 2.1. DEMOGRAPHY AND DISEASE DEVELOPMENT

The need for specialist healthcare services will be driven by the population development in the admission area.

The development in the population, the age composition of the population, changes in the picture of illness and people's expectations of quality and standard will have great significance for the planning of the hospital of the future. The most important challenges for patient care in the coming years will be to have sufficient capacity for an increasing number of patients

patient influx, be able to adapt patient processes to a greater extent to the individual's needs, as well as ensure comprehensive processes across the levels of care

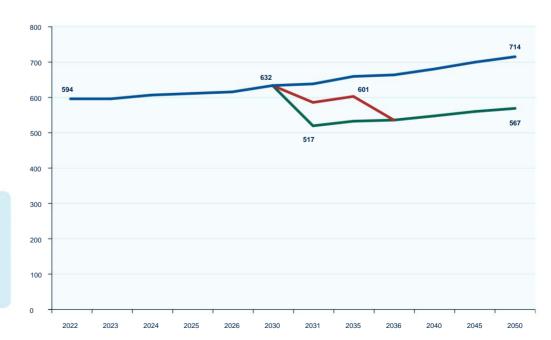
# Population development

The population is growing significantly throughout the catchment area. Statistics Norway's population projections (August 2020) show a growth of almost 15 per cent until 2040.

A stronger growth in the population of Romerike is estimated, compared to the other regions in the admission area.

Figure 2-1 below shows the projected development within the current admission area, and with the plans as of 2022 that have been laid for the phasing out of the Oslo districts.

Figure 2-1:
Expected population growth in the admission area 2021-2050.
SSB main alternative August 2020 - figures in 1,000 inhabitants.



Ahus SO PHV/TSB (AGS 2031)

Figure 2-2: Projected age composition i Akershus hospital area 2021-2050 (excl Oslo districts)





#### Disease development

It is expected that population growth in the Akershus hospital area will lead to approximately a 30-35 per cent increase in activity within the specialist health services, provided that current operations and needs do not change.

When projecting capacity needs, account must also be taken of operational changes as well as expected changes in the business due to medical professional development, new medicines, new ICT and e-health systems, new forms of collaboration, lifestyle changes and changed user roles.

The incidence of various diseases varies between ethnic groups. In addition, there is great variation in the picture of the disease and the need for treatment across the age groups. In order to achieve the best possible user quality, it is therefore important to offer the specialist health services that the population in the admission area has the greatest need for. It is also necessary to organize patient services and communication about treatment for patient groups with special challenges, for example related to language and living situation.

The proportion of elderly people over the age of 67 is increasing (figure 2-2). This will increase the need for specialist healthcare services. Activity growth could therefore be somewhat higher than population growth would indicate.

In connection with the preparation of the National Health and Hospital Plan, it is estimated that the need for 24-hour and day treatment will increase significantly for the group over 65 years of age. This is mainly due to the increase in the proportion of elderly people. Many of the older patients will have chronic and complex conditions. It is expected that there will be a particularly increasing need for services for patients with dementia, geriatric psychiatric conditions, heart and vascular disease, kidney failure and cancer.

The cancer register has projected the incidence development for cancer based on expected population growth and age composition. In the Akershus hospital area, the number of new cancer cases will also increase sharply. Most of these will come in the older part of the population.

An increasing proportion of the population experiences mental health problems. This particularly applies to young people and people with an immigrant background. The consumption of specialist health services within mental health care and interdisciplinary specialized drug treatment is greatest in the age group from 20 to 50 years, and will not be affected as much by the wave of older people.

In the coming years, an increased supply of acutely and critically ill patients is expected. With a large admission area, Akershus University Hospital has many emergency admissions.

The number is assumed to increase in line with population growth. In addition, the increasing number of elderly people will contribute to more patients coming to the hospital in need of quick help.

The proportion of children and young people with chronic somatic illness and stress-related psychosomatic conditions is increasing.

Furthermore, the number of children with serious illness has increased in recent years. Medical developments make it possible to save more children, and some will have to be followed for a lifetime.

Children and young people with long-term health needs must be able to live as normally as possible with their families, and it is necessary to create good outcomes for this patient group.

Furthermore, collaboration across hospitals and levels of care is becoming increasingly important, so that patients and relatives experience good coherence in the offer. When young people transition into adulthood, it is also necessary to have a good dialogue with the adult department, so that the transition is not too overwhelming.

# **2.2. USERS**

Knowledge of the users' experiences is central. The development work is strengthened with good user participation.

When arranging for co-selection, good transitions and coping, it is particularly important to take the users along for advice.

# User participation

The user committee represents patients and relatives at system level. The user committee is appointed by the board of Akershus University Hospital on the basis of proposals from the patient organisations. The chairman and deputy chairman of the user committee have the right to attend as observers in the company's board. Furthermore, representatives of the user committee participate in several central councils and committees, in major development projects and are increasingly involved in planning research projects.

Akershus University Hospital also has a proud history when it comes to youth medicine. This is a venture that has resulted in adapted areas, an active youth council and a transition program to improve the transition to adult medical provision. The Youth Council has become an important player in the work for youth and young adults.

# Learning and coping

There is a need for systematic work with learning and coping both at the hospital and through collaboration with the municipal health service. Akershus University Hospital works purposefully with learning and coping services so that patients can cope with everyday life with a chronic illness and a difficult life situation. Bereavement support and information about user organizations and peer work are also offered. The offers are mainly groupbased, diagnosis-specific and carried out under the auspices of the responsible specialist department. A central position has been set aside for health education guidance and coordination of the work with training of and for patients and relatives, and separate course rooms have been established centrally in the hospital.

Pusterommet is a special training and activity offer for cancer patients, with the aim of reducing side effects, maintaining and improving physical fitness, as well as providing increased energy. It can also be a meeting place and social arena for patients in the same situation.

> Many of the older patients will have chronic and complex conditions

# Diversity, equality and migration health

The work with diversity, equality and migration health must safeguard equality as a central value in the health service.

It must be taken into account that people are different and have different needs. This is ensured by adapting systems, routines and the way patients and staff meet. For several years, Akershus University Hospital has worked both at system level and in the individual departments with questions related to diversity, equality and migration health. To further strengthen this field, an action plan for further development work has been adopted. The process has been carried out with broad involvement and great commitment in the health company.

The action plan will contribute to a holistic approach, and at the same time facilitate local measures.

# Peer-to-peer work

In 2015, a peer office was established, where patients and relatives can get advice and guidance from others with similar experience. The service is staffed and run by the user organisations, in collaboration with the coordinator for learning and coping at Akershus University Hospital.

Approximately 70 peers from 15 different organizations participate in the scheme. The offer, called "The meeting point for patients and relatives" is centrally located in Glasgata at Ahus Nordbyhagen. There, patients and relatives can get relevant information material, guidance on safe health information and a peer to talk

# **User satisfaction**

The purpose of user experience surveys is to obtain information about the patients' experiences with the services. This should contribute to better business management, quality, consumer choice and information to the general public. The patient experience survey PasOpp was introduced as a national measure in 2011. Akershus University Hospital regularly participates in the PasOpp surveys, both at department level and at enterprise level.

Through the work with local improvement measures, user experiences are an important part of the evaluation work. In order to simplify and streamline the collection, work has been initiated to establish electronic user surveys.

One department has piloted the solution, and work is continuing to roll it out to the rest of the company.

#### 2.3. ACTIVITY

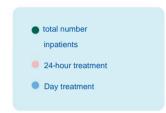
As a result of population growth, there has been a general increase in activity. There has also been a shift towards outpatient consultations rather than 24-hour stays.

The annual increase in outpatient activity within mental health care and interdisciplinary specialized drug treatment has been greater than population growth. Figures 2-3 to 2-5 show the activity development from 2002.

Figure 2-3: Development in the number of hospital stays in somatics 2002-2021

The recording area was extended on 01.01.2011.

There was a change in definitions of care levels on 01.01.2013 Kongsvinger Hospital entered the admission area from 01/02/2019



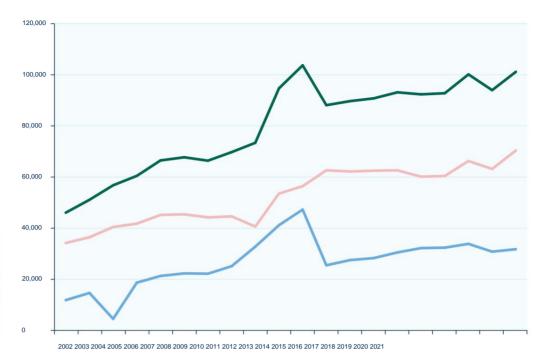
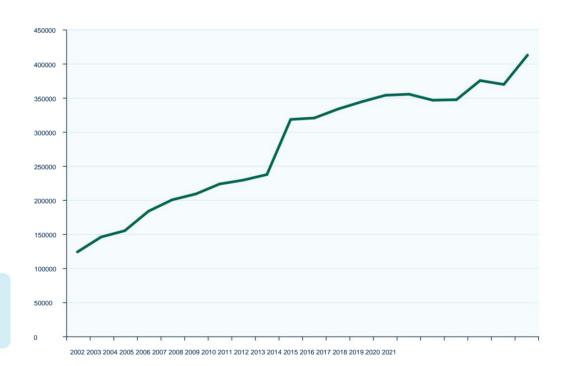


Figure 2-4: Development in the number of outpatient consultations in somatics 2002-2021

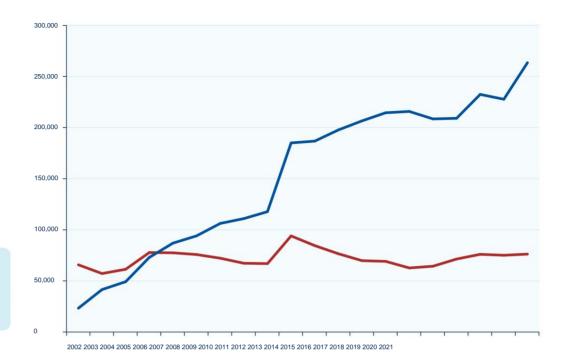
The recording area was extended on 01.01.2011. Kongsvinger Hospital entered the admission area from 01/02/2019

Number of outpatient consultations in somatics









#### Somatics

An increasing influx of patients, combined with the change in the level of care from 24-hour to day and outpatient clinics, has led to increasing capacity needs in the outpatient clinics. Efforts have been made systematically to increase availability, as well as reduce waiting times, the number of missed deadlines and the number of patients waiting for an appointment.

The business at Akershus University Hospital is characterized by a particularly high proportion of emergency admissions, which creates large fluctuations in occupancy.

In recent years, there has been systematic work on capacity measures; first as a project, and then as part of the ongoing planning work. An operations committee has been established which works both with year-round planning and action cards for more unforeseen changes in capacity requirements.

The operating committee has broad representation from the clinic, and was a central player in the capacity work during the corona pandemic. In order to be able to handle varying needs linked to the pandemic and at the same time ensure other patient care as best as possible, the operations committee drew up plans for increasing and decreasing staffing and areas.

Good flow throughout the process is essential to achieve efficient patient stays without unnecessary waiting time. The biggest bottlenecks now are the capacity in the emergency department, in the operating theaters and in the intensive care unit. Acutely and critically ill patients must be assured of an offer that is flexible and correctly dimensioned. Efforts are being made to strengthen collaboration across the units to ensure the best possible patient treatment and optimal utilization of resources.

# Mental health care and interdisciplinary specialized substance abuse treatment (TSB)

Treatment of people with mental disorders and drug addiction is offered on a local basis at district psychiatric centers (DPS), and centers for child and adolescent psychiatry (BUP) and drug and addiction (ARA). In addition, treatment is offered at the hospital for the sickest patients.

In recent years, Akershus University Hospital has shifted from mainly hospital-based treatment to local-based services, and from 24hour to day treatment, outpatient and ambulatory consultations. Digital home monitoring is increasingly being used. This development is in line with national guidelines and medical developments.

Nationally, the number of outpatient consultations for adults has doubled over a 15-year period, while the number of days spent in hospital has decreased.

Akershus University Hospital operates local services in five areas; Kongsvinger, Groruddalen, Follo, as well as Lower and Upper Romerike. These have a somewhat different profile, as a result of differences linked to history and pace of development.

The use of the offers also varies between areas.

It has been a goal to design the locally-based services as equal offers. People who have substance abuse disorders or other addiction problems are offered treatment and follow-up at eight different treatment centres.

Certain specialist areas have a thematic rather than geographical division. This applies, for example, to an inpatient service and an outpatient service for obsessivecompulsive disorder at Nedre Romerike DPS. These offers cover the entire admission area.

While the population's usual needs at specialist health service level must be met by the locally based ones services, the hospital's task is to look after rare or particularly complicated conditions. Through package procedures for mental health care and interdisciplinary specialized drug treatment, there is extensive coordination between hospital departments and different levels of treatment. It is therefore a goal to further develop the locally-based services at the same time as the hospital functions are brought together at Nordbyhagen. With a new building at Nordbyhagen, there will be sufficient capacity for geriatric psychiatry, security psychiatry and psychosis treatment from the time the Oslo districts are transferred to Oslo University Hospital. This replaces the services at Skytta in Nittedal municipality and Lurud in Skedsmo municipality. Furthermore, the purchase of places at Oslo University Hospital and Sykehuset Innlandet can be discontinued.

Through package procedures for mental health care and interdisciplinary specialized drug treatment, there is extensive coordination between hospital departments and different levels of treatment

#### **Excess coverage**

The degree of self-recovery within the somatic activities is lower for Akershus University Hospital than for other hospitals in Health South-East with which it is natural to compare. Self-coverage refers to the share of health care for residents in a hospital area that is provided by the health institution in question. The flow of patients out of the hospital area is considerably greater than what can be attributed to regional and national functions. This particularly applies to planned (elective) treatment. There is a lower degree of self-coverage for surgical treatment services than there is for the medical ones and a higher self-coverage rate for the municipalities than

Systematic work is being done to strengthen selected area functions. By this is meant functions that are only slightly specialized or linked to such small areas of expertise that they are only performed at one of the hospitals in hospital areas with several hospitals. A thrombectomy service has been established for stroke patients, which both accepts patients from its own admission area and Sykehuset Innlandet.

A new PCI laboratory received the first elective cardiac patients in November 2015, and is now very active. With the takeover of the invasive cardiology business from the National Heart and Lung Disease Association (LHL) in January 2021, Akershus University Hospital gained a large professional environment in this field, and the capacity to cover treatment needs beyond its own admission area. Helse Sør-Öst has initiated an investigation into how responsibility and



the division of tasks will be between Oslo University Hospital and Akershus University Hospital within advanced cardiac medicine, where possible multi-area functions for Akershus University Hospital will also be considered.

There will be advantages in the long term in creating an offer within some of the specialist areas that the hospital lacks or has a small complete offer by today, both to ensure a holistic course for the patients and as a university hospital. An initial investigation of new specialist areas has been carried out at the company, including an extension of services in eye diseases and rheumatology to Nordbyhagen (available only at Kongsvinger Hospital today) and a possible service in skin. In 2022, in dialogue with Helse Sør-East, further work will be carried out to clarify which specialist areas the healthcare organization should have until 2040, including an assessment of targets for self-coverage in specialist areas such as orthopedics and plastic surgery.

The degree of self-coverage for mental health services is consistently good, with the exception of 24-hour services for children under 13, which are covered by a private institution with an agreement with Helse Sør-East RHF. The capacity need within mental health care for adults is met in addition to the capacity in the hospital's own buildings, by purchasing capacity at Oslo University Hospital and Sykehuset Innlandet. However, there is a very low rate of self-coverage for services within interdisciplinary specialized drug treatment, and many of the days spent in bed are in private institutions. This is a challenge in the work to offer good and coherent treatment courses, where cooperation between the municipality, polyclinics and inpatient facilities is a prerequisite. As for most other healthcare organizations in the region, the possibility of increasing the self-coverage rate for the 24-hour substance abuse treatment service is limited by the large proportion of purchased places.

Several health atlases have been prepared based on information from the Norwegian Patient Register. The atlases show an overview of health services that are provided to people in different admission areas, with the aim of uncovering differences in practice and differences in provision. In a long-term perspective, it is desirable to develop the offer so that it is equal for the whole country. The results can be useful in the work to further develop the individual subject areas. The health atlases are thus an important tool for being able to assess whether the company's patient treatment is in line with the treatment provided in other parts of the country.

# Quality and patient safety

The work with quality and patient safety is a high priority. Systematic management is necessary to meet the requirements and expectations set for the business. Patients must be able to trust that the services at Akershus University Hospital are safe and of good quality. The methodology follows regulations on management and quality improvement, by planning, implementing, evaluating and correcting. Managers at all levels are responsible for participating in and carrying out systematic improvement work. Participation from the employees is central.

As part of the company's systematic work with quality and patient safety, an action plan has been adopted which will contribute to a coordinated effort in the area. The main areas described in the plan will be followed up over time:

- · Quality-oriented management
- Structures and expertise that contribute to establishing a culture for improvement
- Knowledge-based approach and systematic use of quality information
- Safe and secure services
- Strengthen the user's role

Figure 2-6: Proportion of patient stays with at least one injury

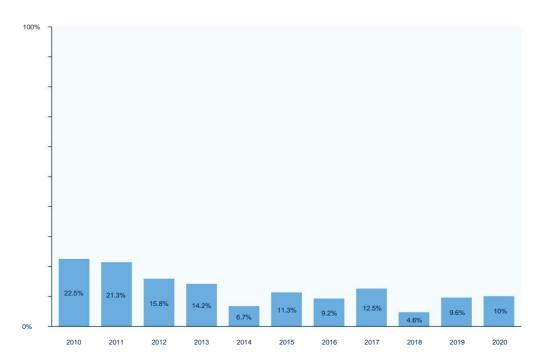
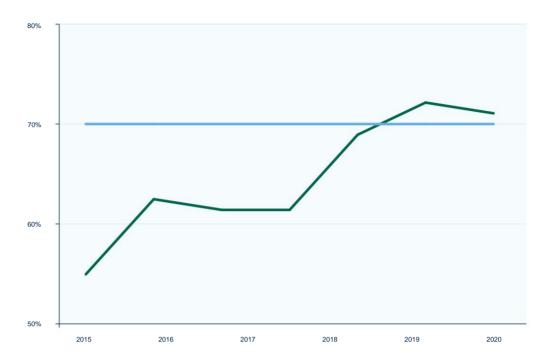


Figure 2-7:
Proportion of patients treated
within the standard progression time
for package progression cancer 2015-2020
(National target is 70 per cent)



#### Quality improvement

The company aims to create a culture of continuous improvement. Emphasis is placed on each department carrying out at least one improvement project annually.

The initiative is supported by the offer of courses in improvement methodology for managers and employees. Learning networks are also organized where participating improvement teams gather several times during a year to learn from each other.

The work is presented on the improvement day, which has become an annual meeting place with great commitment and many participants. A prize is also awarded to the best improvement works.

Quality improvement is also an integral part of the manager development program at the hospital, and is included as part of the common competence module for doctors in specialisation.

Furthermore, there is active communication of the improvement work, both through the intranet and at professional and management meetings. Results from the improvement projects are also regularly presented to the health authority's board.

# Available health services

A target has been set for waiting time, and this is carefully followed up through reporting. The number of long-term patients (>365 days) increased significantly during the corona pandemic. The challenge is particularly linked to patients who are waiting for elective surgery, as this activity has periodically been scaled down completely or partially in order to have sufficient intensive care capacity for patients with covid-19. Throughout the pandemic, emphasis has been placed on utilizing quiet periods, in order to also be able to offer treatment to patients with a lower medical priority. In the aftermath of the pandemic, catching up with the backlog is a priority.

Learning from patient injuries and adverse events

Complaints, patient-related messages and supervisory cases form a good basis for work on improvement and prevention of unwanted incidents. The responsibility for follow-up rests with responsible managers who know the business best, and thus have the best conditions for achieving real improvements.

Quality and patient safety committees have been established at enterprise level (KPU1) and in all divisions and clinics (KPU2).

KPU1 discusses principle issues with the aim of improvement, information sharing and learning across the hospital. Emphasis is placed on systematic review of incidents and risk areas for patient safety that are important, common and difficult. KPU2 goes into more detail about challenges and complaints related to the individual division or clinic.

Structured journal surveys are carried out annually using the Global Trigger Tool (GTT). The purpose of the method is to identify and measure the frequency of patient injuries over time.

20 records are extracted per month which are reviewed by a team consisting of doctors and nurses. The aim is for the proportion of hospital stays with patient injury to be reduced by 25 per cent from 2017 to 2023. The surgical division has established GTT examinations at divisional level, and participates in a collaboration with the Norwegian Directorate of Health on the development of the methodology.

Package sequence for cancer

During 2015, a total of 28 package courses for cancer were introduced, which makes it possible to monitor course times systematically. They are useful as a management tool for both the health organization and the health authorities. Correspondingly, package procedures have been introduced for mental health care and substance abuse treatment. The next step in the work on the cancer package process is the introduction of the "home package process". This will entail an even greater need for close interaction together with primary

the health service. A good collaboration has been established between process coordinators at the hospital, cancer coordinators in municipalities and districts and the Cancer Society, which is a prerequisite for success in the further work

The package processes must ensure the patients standardised, wellorganised and predictable treatment processes without unnecessary non-medically justified delays in assessment, diagnostics, treatment and rehabilitation

Course coordinators plan the course in accordance with national guidelines, set up appointments and are the hospital's contact person for patients and GPs. Interdisciplinary meetings had already been introduced for many of the subject areas, and the need for these meetings has been further strengthened. Efforts are also being made to reduce the time it takes to transfer patients from Akershus University Hospital to regional services at Oslo University Hospital, including through interdisciplinary video meetings with Oslo University Hospital for some processes, in order to reduce the process time.

Feedback from the patients has been positive. A great many patients with a well-founded suspicion of cancer are quickly disproved. Patients diagnosed with cancer receive more predictable and faster treatment.

Cancer treatment was prioritized during the corona pandemic, and all referrals with suspected cancer were handled as before. It was nevertheless demanding to conduct meetings and interdisciplinary discussions, internally in subject departments and between subject departments. In the aftermath of the pandemic, it will be important to restore the good workflow and the close contact between professionals involved in patient processes.

A new approach to cancer treatment is prehabilitation.

This is an offer that has been tested and is now established as an offer for patients who have been diagnosed with colon or rectal cancer. Prehabilitation involves systematic training with a physiotherapist, dietary guidance and courses to improve before surgery. The results show that the patients are more satisfied with subsequent treatment, experience fewer complications and have a shorter length of stay after the operation. In 2019, the length of stay for this patient group decreased by one day, and only half had to be re-operated on. This frees up both bed capacity and personnel resources that can be used for other patients.

# 2.4. DIVISION OF TASK AND COORDINATION

The number of patients with complex conditions is increasing, partly as a result of the wave of elderly people. Many patients with mental disorders and substance abuse problems have somatic conditions, and vice versa.

Furthermore, more and more disease states require that many people work together to investigate, treat and follow up the patient. In order to be able to provide a good and comprehensive patient offer, close cooperation between specialist departments, healthcare organizations and the municipalities is necessary.

#### Within own healthcare company

Over the past decades, a rapidly increasing amount of knowledge has created a need for professionals with specific knowledge and procedural skills. In the wake of this, a number of new health professions, medical specialties and branch specialties have emerged. Broad medical and healthcare knowledge has had to give way to specialist expertise. More and more departments are involved in the examination and treatment of the individual patient.

This requires close collaboration across the board. In several professional environments, thematic and multidisciplinary approaches are worked on. Even before the development plan emphasized the thematic approach, this was applied in several places in the company. Somatic activities for children and young people are gathered in the children's and young people's clinic. The clinic is located in a separate building, where premises and facilities are specially adapted for children and young people. The model maintains an overall perspective, where the department for child rehabilitation and the department for children and young people's mental health have a significant place.

Furthermore, the offer for patients with complaints in relation to the pelvic floor and organs in the pelvis is gathered in a pelvic center across departments. The business is based on a coordinated interdisciplinary collaboration between various specialties and professional groups regarding the examination and treatment of the patients.

In cancer treatment too, there is widespread collaboration across subjects and specialities. National guidelines for the treatment of cancer require a multidisciplinary team consisting of doctors from different specialties to work closely together to diagnose and treat cancer. At Akershus University Hospital, there are well-functioning multidisciplinary teams for all major forms of cancer. The teams meet one or more times a week to make decisions about individual patients.

> A central challenge is to provide the patient with holistic and coherent treatment

# With other healthcare institutions

Many patients have to deal with several hospitals. An increasing degree of surgical specialization has led to more and more elective interventions being centralised.

Radiation treatment for patients from the Akershus hospital area also takes place at Oslo University Hospital.

Centralization of tasks leads to patient processes going across the hospitals and resulting in fragmented processes.

The health institutions have separate record systems, and much of the communication takes place through referral and exchange of epicrises. To adopt core journals and electronic ones

referrals between healthcare organizations have improved the situation in recent years. However, there is a need for further measures to succeed in good exchanges between the enterprises.

A central challenge is to provide the patient with holistic and coherent treatment. Where parts of the patient course must take place at other hospitals, this must be carried out with good planning and in close cooperation with all actors involved.

# The health community with municipalities and GPs

It is a goal in the National Health and Hospital Plan (2020-2023) that municipalities and healthcare organizations develop and plan the services together. An important means of achieving the goal of increased cocreation in community is the establishment of health communities. The Government and the Central Association of Municipalities (KS) entered into an agreement on the establishment of a health community in autumn 2019.

This has been followed up in the collaboration between Akershus
University Hospital and the municipalities in the admission area.

The municipalities and the health authority have committed to further develop already established cooperation structures, where GPs and users must also participate at the three levels of the health community structure. In addition, healthcare organizations and municipalities must work to establish good patient processes for four priority patient groups; children and young people, the seriously mentally ill, patients with multiple chronic conditions and the frail elderly. These four are particularly highlighted in the National Health and Hospital Plan.

Over several years, the enterprise and the municipal health service have had a joint cooperation plan where national guidelines and priorities in the area of health are leading for the priorities that are made jointly and co-created.

This work has been reinforced further with the establishment of the health communities and further work with the services.

There is great potential in strengthening and developing interaction across the two levels of care, not least when it comes to arranging treatment at the right level. Joint service development and work in the health communities shall form the basis for priorities in the next national health and hospital plan.

The Norwegian Directorate of Health prepares management information relating to the four prioritized patient groups. The purpose of the management information is to lay the foundation for a good and equal dialogue that allows room for local adaptations and flexible solutions. The health communities include health and care services at all levels and many different actors, and emphasis has been placed on developing information about services across the levels of administration.

#### 2.5. ORGANIZATION AND MANAGEMENT

#### Akershus University Hospital is owned by Helse Sør-East.

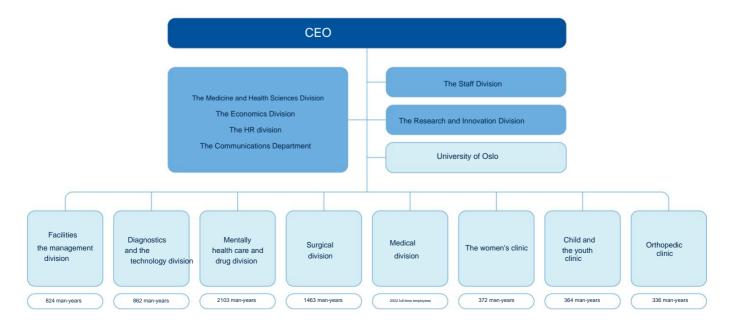
The board of Akershus University Hospital is the health institution's highest body.

#### **Business management**

Akershus University Hospital works purposefully to develop and improve business management and internal control. A common management system has been developed for business management, internal control, management and quality improvement ("Order in one's own house"). This brings together the overall processes for planning, implementing, following up, reporting, evaluating and improving the business. The management system links the processes together and must contribute to good coordination and management.

New processes are implemented successively, and training is provided through the company's new employee and management training programmes.

Figure 2-8: Organization map for Akershus University Hospital HF



Helse Sør-Öst submits its assignments and orders (OBD) annually. Many of the assignments are linked to national guidelines from the Ministry of Health and Care.

Assignments and orders are leading for the business, and are followed up in the management dialogue with Helse Sør-Öst. Goals and tasks are further distributed to divisions and clinics through internal assignment documents. Results and target achievement are collectively reported back to Helse Sør-Öst through an annual notification.

Internal targets are also set for the business in areas that require particular attention.

Divisions and clinics are monitored closely through quarterly target and results management meetings.

The electronic quality management system EQS is used to report, process and follow up unwanted incidents and deviations, as well as for document management of procedures. Reports of adverse events are an important source of improvement, and work is being done systematically to make personnel aware of the importance of reporting deviations both in the area of patient safety and in other areas. Emphasis is also placed on internal audits within the area of quality and patient safety being presented and processed in the quality and patient safety committee at enterprise level.

# Information security and privacy

The health authority collects and processes personal data about patients, employees and other users in, among other things, patient care, research and as an employer. Risks related to privacy and information security must be weighed against risks in patient safety and failure to achieve targets. For planned and structured work, a strategy for privacy and information security has been drawn up for the period 2022-25. Furthermore, annual action plans are drawn up at company level and unit level.

The health region's main supplier of ICT services, Sykehuspartner, is responsible for overall ICT security in the infrastructure. Akershus University Hospital is responsible for ensuring that all information processed in the services is processed in accordance with the privacy regulations. Requirements for information security measures vary depending on how critical the information is for delivering proper health care and proper operation of the hospital. This responsibility belongs to the management line. Each division or clinic is responsible for its own data processing.

The data protection representative and the information security manager have a central role in establishing good systems.

Functions have also been established for privacy advice within research and innovation, as well as information security advice relating to the implementation and management of ICT systems. In order to reduce the risk of personal data going astray when testing or introducing new ICT systems, requirements for privacy and information security must be assessed as early as possible.

# Health, environment and safety (HSE)

The protection service is organized in line with the organizational chart, and is represented at all management levels in the health organisation.

The health and safety service collaborates with management at all levels for continuous improvement of HSE work in the organisation.

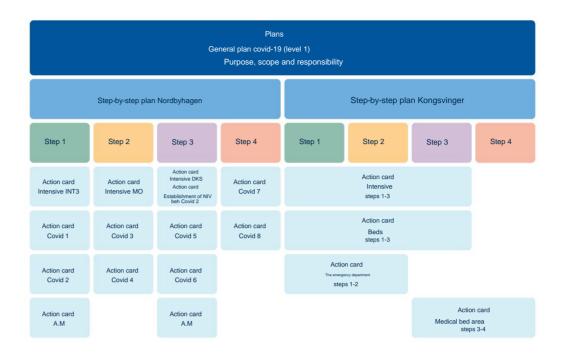
An overall HSE plan has been drawn up. The company works continuously with targeted measures to achieve the HSE targets. Implementation of systems and new procedures etc. takes place, among other things, through information in management meetings, newsletters to managers and implementation of training.

Following a change to the structure for the working environment committee (AMU) in 2018, committees have now been established at both divisional and company level. The working environment committees have a supervisor

Table 2-1: Results from the employee survey For Improvement 2021

Theme	Number of responses	Result (score)	Proportion who answered "slightly agree" or "completely agree"
Engagement	6404	82	82%
Team work climate	6403	83	85%
Working conditions	6402	69	67%
Safety climate	6393	80	80%
Psychosocial work environment	6365	79	75%
Perceived leadership behaviour	6377	84	83%
Top management's role i the patient safety work	4152	69	55%
Physical environment	6397	72	68%
Follow-up	6268	70	67%
Pandemic	6398	71	69%

Figure 2-9: Step-by-step plan for handling of the corona pandemic on Akershus University Hospital



approach, and works to better clarify the HSE perspective in follow-up and analyzes of trends and development.

The annual employee survey, ForBedring, surveys topics within the working environment, patient safety culture and HSE. Guidelines have been laid down for how the units in the health institution should follow up the results from the survey. The employee survey in 2021 showed generally good satisfaction with the working situation (table 2-1). The employees reported commitment and good collaboration, and were satisfied with their managers. There was a weaker result for perceived workload and access to necessary resources than before, which is seen in the context of the corona pandemic.

### **Participation**

The employees are involved in processes that affect working conditions and the working environment. The managing director holds regular dialogue meetings with the principal shop stewards and principal protection representative for mutual information and discussion on key matters. Regular discussions are also held with employee organisations. Arrangements have been established for participation both at divisional and departmental level, and in the development work.

#### The operating committee

The hospital is a large and complex organization with many operational and interdisciplinary dependencies. In order to optimize operations, particularly in periods of low and high activity, for several years employees have been appointed from various units in

the hospital with responsibility for planning and evaluating operations. In autumn 2019, the hospital management decided to establish an operating committee consisting of permanent representatives from all divisions and clinics, as well as support functions and employee representatives. The representatives are responsible for coordinating information and work in their own unit.

The operating committee shall work with the following objectives:

Holistic and continuous approach of
 operational measures and assessments both in low and
 high activity periods within the given framework • Planned
work with low and high activity periods where measures and
 collaboration structures affect several divisions, clinics and
 units • Coordinated year-round
planning • Coordinated and planned

work towards the clinic • Uniform, efficient, robust and holistic approach to operational challenges on behalf of the hospital management

In March 2020, the operations committee was also given responsibility for coordinating all operational measures as a result of the patient influx of covid-19 patients. A result of this coordination work is a step-by-step covid plan for the somatic business (figure 2.9).

During 2021, the operational choice changed focus from seasonal to year-round planning. The operations committee is also working to establish an automated and robust solution to extract and collate important operating and management parameters about inpatients to ensure good patient flow and correct patient placement.

#### **Preparedness**

Emergency preparedness is an important part of the health organisation's responsibility, and the planning framework describes that emergency planning and handling of emergency situations is a management responsibility. A comprehensive plan and a clear organization have been drawn up to deal with unwanted incidents that could lead to emergency situations. In connection with the pandemic, which has led to an increased level of preparedness over time in 2020 and 2021, the company learned that a professionalization of the function as emergency manager and emergency secretary has strengthened the company both in terms of preparedness and security.

Exercises are carried out regularly, both internally and in collaboration with the emergency services. The purpose is to train for incidents with the reception of many injured people from an external site of injury, including after an incident with ongoing life-threatening violence (PLIVO). The feedback is that the exercises are useful and educational. After each actual incident and each exercise, an evaluation report is drawn up, an action plan with areas for improvement, and responsibility is assigned and deadlines are set for implementation and follow-up. Follow-up of the action plans is done by the emergency committee.

The notification system that the company currently uses to notify hospital management and emergency departments, it may be appropriate to expand its use. Work is also underway to carry out a security risk analysis for all the treatment sites. Another task is follow-up of the National Health Inspectorate's survey of accessibility in ICT systems.

#### Pandemic preparedness

When the corona pandemic hit Norway and Akershus
University Hospital in mid-March 2020, an enterprise-wide effort
was quickly established to ensure sufficient capacity and
staffing for affected units; emergency department, covid-19 bed areas,
intensive care and monitoring. Plans were drawn up for
establishing the necessary capacity following the expected influx of
covid-19 patients. Several employees were redeployed from their
permanent department to newly created covid-19 areas.

Table 2-2: Educational activities in 2021

Professional group	Number
Medical students	1040
LIS 1 positions	70
Doctors in specialization	462
Nurses in further education	65
Other healthcare students	800

After the first "wave" of covid-19 patients subsided a month later, work began to prepare a plan with the intention of ensuring planned and coordinated changes in the company as a result of the influx of covid-19 patients. In addition, the planning system should help to balance three considerations:

- Ensure preparedness related to the corona situation, with adequately trained personnel available to treat patients with covid-19
- Ensure provision for the influx of first-aid patients to the hospital
  - Ensure

elective activities to reduce backlog and waiting time

The experience gained from the clinical operation during this period was used as a basis for the work on the step-by-step plans, and adjustments were made to ensure the uptake of activity in quieter periods. The work on the planning was extensive and with several partial deliveries towards a long-term plan.

The experiences from the corona pandemic and the plan that has been drawn up lay a good foundation for handling a subsequent pandemic.

The plan consists of four main stages for Nordbyhagen and Kongsvinger respectively. Each step describes how the pandemic operating model affects ordinary operations within patient care, areas and organisation.

The planning authority describes threshold values for building up and down capacity in line with the need. For each of the steps, there are detailed plans with action cards for the operation and personnel planning for the prioritized areas.

Hospital management is the decision-maker for steps and activation of action cards.

Akershus University Hospital has followed up the National
Preparedness Plan against outbreaks of serious infectious
diseases and the cooperation agreement with the municipalities,
including through the creation of a professional council for preparedness
and infection control from 2020. The professional council consists of 2
representatives from each region (Kongsvinger, Gardemoregionen,
Nedre Romerike and Follo) and 3-6 representatives from
Akershus University Hospital. The work with pandemic management
has strengthened the overall infection control work and preparedness work
in the hospital, and has shown that the hospital management,
emergency manager and the infection control section work closely and well together.

#### 2.6. STAFFING AND COMPETENCE

Adequate staffing with the right expertise is a central factor for all stages of the diverse activities of Akershus University Hospital.

As a university hospital, Akershus University Hospital also has a special responsibility to contribute to the training of health workers who can meet society's future needs.

# **Staffing**

At the end of 2021, Akershus University Hospital had approx. 11,000 employees, including on-call assistance. Of the permanent employees, 70 percent of the employees worked full-time. The average proportion of women was 79 per cent.

With the highest expected population growth within Health South-East, Akershus University Hospital can expect the strongest relative growth in staffing needs compared to other hospital areas in the region.

There is competition on the labor market in the capital area and a shortage of specialist nurses and doctors in several specialist areas. Furthermore, developments in medical treatment, methodology and technology will require a different set of skills in the future than the company has today. The work to ensure sufficient personnel with the right skills in the short, medium and longer term is absolutely central, and an appropriate division of responsibilities and tasks will be able to support this.

Long-term planning is necessary, both when it comes to developing, training, retaining and recruiting own personnel. Good management and systematic HSE work are central elements in the work to create a balance between tasks, resources and a safe working environment.

# **Education**

Education is a statutory task that includes both basic, further and further education. In partnership with

universities, colleges and upper secondary schools run extensive educational activities by a number of types of health personnel, with an emphasis on practice and practice-based teaching.

The educational activity must also contribute to ensuring that the healthcare organization has sufficient competence at all times. Although there are currently a sufficient number of health workers being trained in most categories, several studies have concluded that the wave of older people in combination with small cohorts of working age will create a labor shortage. In recent years, deficits in groups such as intensive care and operating room nurses have shown how vulnerable hospital operations are when it comes to a lack of key skills. Access to health personnel with the right skills is going to be a critical factor going forward.

In order to meet the biomedical and technological developments, there will be an increasing need for expertise in several subject areas. There is, in part, considerable competition with the private business world. Good working conditions, professional development opportunities and further education will be crucial to being able to attract and retain the necessary personnel resources.

The pandemic has increased the need for digital training. In 2021, 101,333 e-learning courses were completed, which was an increase of 20,000 from the previous year.



#### The competence portal

The competence portal is a management tool for documentation of competence. In the portal, assignments can be assigned and the completion of learning activities can be recorded. During 2022/23, the tool will be used by all departments and all occupational groups at the hospital.

#### Simulation and skills training

SimAhus - center for medical simulation at Ahus, is an arena for medical simulation, where clinicians can practice various scenarios with realistic simulation dolls, rooms and equipment, under guidance from certified instructors. The center has an average of 2,500 participants on courses annually, including training at the clinicians' workplace. The simulation center moved into new premises in 2021, and has three simulation labs, a control room for controlling puppets and video filming the training, in addition to five classrooms.

Simulation training is a learning method in which realistic patient situations are simulated using markers or mannequins. The simulation is followed by a debrief where you reflect on what you have learned.

It is important to be able to practice in safe surroundings, so that healthcare personnel feel confident in their tasks.

During the corona pandemic, SimAhus has been a valuable resource. Many were reassigned to work in monitoring areas without being trained intensive care nurses. Through good cooperation with infection control and the clinic, priority was given to training personnel who had never worked together before. They received valuable simulation and skills training before starting.

This made them better equipped to handle an unfamiliar work situation. Furthermore, SimAhus has adopted digital resources to provide greater flexibility in the training and uses film for use in preparation and refresher procedures.

# The Competence Bridge

The Competence Bridge is a digital tool that will facilitate the statutory interaction and the sharing of expertise between municipalities, healthcare organizations and educational institutions. The cooperation on the Competence Bridge is anchored in the statutory cooperation agreements, as well as in agreements with relevant educational institutions. The health enterprise area

Oslo has developed the tool and adopted it in its local collaboration. Later, the health enterprise areas in Innlandet, Vestfold and Østfold have been included in the collaboration. Work is underway to further develop the Competence Bridge and make it possible for healthcare communities with cooperating educational institutions across the country to use the tool.

The competence bridge's educational and competence content is the most developed part of the solution, and contains professional topic sections, digital courses and health films.

The Competence Bridge is an important source of up-to-date knowledge about subjects and procedures. Furthermore, the Competence Bridge played a major role in the digital competence enhancement of health personnel and students. The increase in traffic was a whopping 324 per cent, and the pages had visitors from all over the country.

Furthermore, the Competence Bridge has its own pages for interaction in the health communities. These have been set up to be able to function both as an information channel and a resource in the active collaboration between municipalities and healthcare communities. The year wheel function is a visual tool for planning and an ongoing overview of the activities within the area.

#### Leadership development

Development of management in the company is an important and deliberate investment to ensure ongoing objectives, quality and good operations, as well as underpinning the hospital's strategic goals in the development plan. Work is carried out in four areas:

- Strengthen the management lines through systematic management follow-up and performance assurance
- 2. Strengthen managers' competence through mandatory and needs-based training offers and management development programmes
- Develop learning arenas for managers through
   management network, management gatherings/conferences
   and mentoring
- 4. Strengthen the manager's prerequisites for conducting good management through appropriate organisation, clear job descriptions, and processes with good division of tasks and support between the management levels. In addition, good support from staff and support functions.

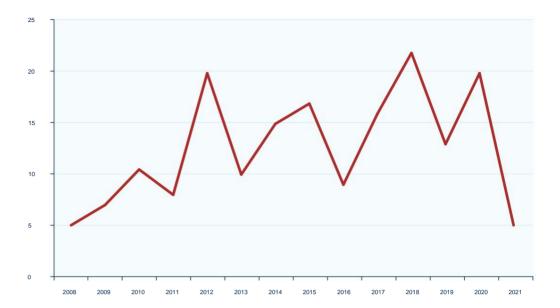
There is a continuous offer of internal management training.

The work with management training and management development is concretely organized around improvement processes and business management. The management training has a professional profile aimed at the challenges and distinctive features of leading a unit in the health service.

The programs have two starting points:

- Individual programmes, where the development and strengthening of the individual manager, and interaction between managers are central.
- Development of management groups and interaction between management groups in the organisation.

Figure 2-10:
Development in the number of doctoral degrees 2008-2021



**Figure 2-11:**Development in the number of publications 2011-2021

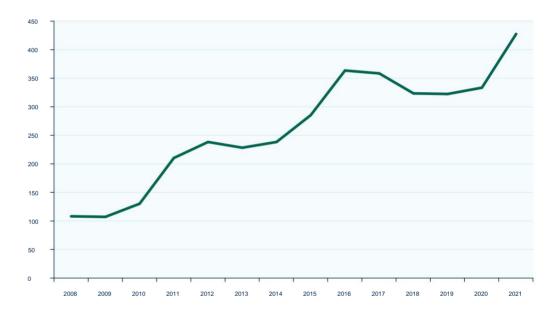
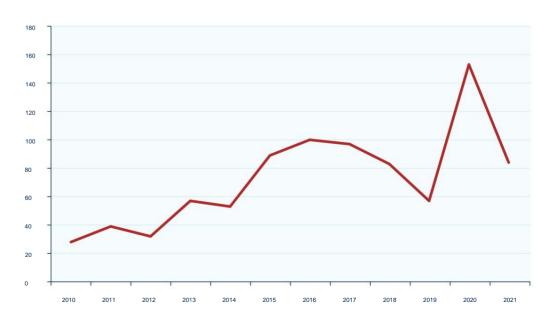


Figure 2-12:
Development in allocated
research funds from external sources



# 2.7. RESEARCH AND INNOVATION

Akershus University Hospital works purposefully to strengthen research within the entire breadth of the business, and to develop the business further through innovation.

Formal requirements have been set for university hospitals to make a significant contribution to research-based education in medicine and health sciences. University hospitals must also be able to document basic biomedical and healthcare research, translational research and clinical research in most clinical disciplines, as well as that research is carried out that maintains a high international quality.

# Organization of the research

Akershus University Hospital has worked purposefully to strengthen research within the entire breadth of the business after it gained formal status as a university hospital in 2001. An important initiative has been to create formalized research groups. It is required that all active researchers belong to such a group. Responsibility for research follows the line structure, with separate research leaders in the divisions.

The collaboration between Akershus University Hospital and the Department of Clinical Medicine at the Faculty of Medicine, The University of Oslo (UiO) is good. UiO has a local unit, Campus Ahus, which is divided into three university clinics; clinic for health service research and psychiatry, clinic for surgical subjects and clinic for internal medicine and laboratory subjects. Close to 100 employees have main or secondary positions at

one of the university clinics. In total, the health organization has 185 research man-years distributed among 560 people. An increasing proportion is financed through time-limited funds exposed to competition from various external sources.

# Research activity

The production of doctoral degrees has been increasing for several years, but suffered a decline during the pandemic (figure 2-10). In 2021, 5 defenses were held. The number of publications in international peer-reviewed journals has risen sharply. In 2021, production was 410 publications (figure 2-11). The research is increasingly financed by external sources (figure 2-12). This reflects a positive development both for projects, project applications and the merits of the project managers. Recruiting staff with solid research expertise to both clinical and academic positions is a prerequisite for continuing this good development. Important external contributors are Health South-East, the Research Council of Norway, the Cancer Society and Stiftelsen DAM.

The research laboratory Epigen is a joint resource that forms the molecular biological foundation of the healthcare organisation. Further progress in research and development depends on investing in a number of key functions, including on the laboratory side. The first-line service is involved in some research projects, but there is potential to further develop this. It has been challenging to build up strong research environments where the health sciences are represented.



The number of industrial and self-initiated clinical studies has increased as a result of conscious investment. A coordinator has been employed who will arrange for more clinical studies to be initiated, including early-phase trials. The health authority is a member of the NorCrin collaboration.

The Department for Health Services Research, together with research support for joint functions, has been a significant contributor to bringing forward leading research environments, and coordinates a national network for the subject area.

#### Innovation

There is great potential for innovation in the health sector.

As a large biomedical institution, Akershus University

Hospital should promote innovation both through internal prioritization and through internal strategic tendering processes.

Contact with key innovation players will also be important. Research-driven innovation has resulted in a small number of patents and company formations. This work is supported by the commercialization company Inven2, which oversees the commercialization work for all the health enterprises in Helse Sør-East.

# 2.8. ECONOMY

Annual profits are a prerequisite for being able to realize reinvestments in land, equipment and technology.

In addition, sufficient equity capital must be saved in advance of expansions in terms of area to meet requirements for borrowing for new buildings.

The financial framework conditions mainly consist of allocations from Helse Sør-Öst (fixed income) and variable

income as a result of the activity carried out. The economic situation has improved significantly in recent years. The most important reason has been increased productivity in the somatic part of the business. Active work must still be done to ensure a sustainable economy where the company itself creates the equity necessary for future development.

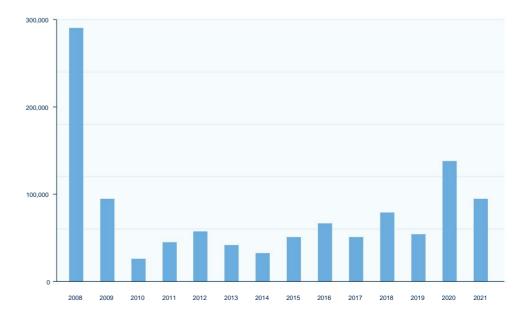
Akershus University Hospital faces significant investments in the coming years, and must therefore have positive results in order to build up sufficient equity capital.

Profit expectations going forward must be based on a sober underlying operation, which implies somewhat lower cost growth than growth in income. It is planned that the profit targets will be increased step by step and in step with the level of investment. It is necessary to meet the annual need for reacquisitions and plans for further development of the treatment offer, as well as providing equity for building extensions.

Expected changes in the admissions area could entail demanding adjustment challenges. In 2031 and 2036, significant tasks will cease, and thus also income in connection with the transfer of the districts of Alna, Grorud and Stovner to Oslo University Hospital. Compared to budget 2020, this will mean a total loss of income of approx. 20 percent. It is reasonable to expect that we will take some time to adapt to a significantly lower cost level, so that profits will be lower in the years following the phasing out of the districts.

Overall, this will require clear prioritization and that operations must be planned and implemented even better. An important element in this work will be to strengthen the common culture of target achievement linked to budget measures.

Figure 2-13:
Acquisition cost per year for medical-technical equipment that is in operation (in NOK 1,000 nominally)



# 2.9. TECHNOLOGY AND EQUIPMENT

As part of the regional technology initiative, both infrastructure and solutions will be renewed at Akershus University Hospital in the coming years.

The regional development plan lays down guidelines for a more future-oriented health service, which uses technology to provide a better patient service.

Akershus University Hospital has established a separate technology plan with the aim of exploiting and adopting technology, and to further develop the healthcare institution in line with future technological development. This is an important prerequisite for being able to give patients, relatives and employees the best opportunities to have a flexible everyday life where technology is used optimally in patient care. The technology plan must support the goals in the development plan.

The investment will contribute to better quality and patient safety, increased efficiency and better interaction between the actors involved in patient care. The hospitals must be able to meet society's expectations for the use of digital interaction arenas, for example the possibility of self-service via helsenorge.no or possibilities for digital home follow-up as part of the treatment. Digitization will provide new opportunities in patient care. One example is the use of artificial intelligence as decision support for healthcare personnel.

The hospital annually carries out major investments to upgrade, replace and acquire new medical-technical equipment and ICT solutions. To keep up with the medical

and technological developments, it will be necessary to carry out major investments within the technology area.

#### **Development of patient services**

There is a need for close collaboration with municipalities and GPs to create a holistic approach to patient care. This involves good communication and integrated collaboration regarding the individual patient, as well as the sharing of knowledge, common goals for competence development and collaboration on the use of technological tools.

For many patients, both outpatient follow-up and advanced treatment can be carried out remotely using technological tools. Examples of this are user-tailored follow-up of diabetes patients and home dialysis.

Video consultations, electronic forms and solutions for medical measurements will make it possible to provide good, high-quality patient care, even if patient and therapist do not meet in the same room.

For the patient, there will be a big gain in avoiding attendance in hospital, could be followed up in safe surroundings and learn to manage their own life and illness in their own environment. For the healthcare provider, success with home-based treatment will be necessary to meet the capacity challenge. The corona pandemic has helped to accelerate the development of new ways of following up patients with the help of technology. Going forward, it will be crucial to maintain pressure in this area, so that the desired and necessary changes are realized for all patient groups who can benefit from it.



# 2.10. CAPACITY

# Akershus University Hospital operates a total of 18 treatment centers within the admission area.

The company has its headquarters at Nordbyhagen, in Lørenskog municipality.

# **Somatics**

#### Bed capacity

The somatic activity at Nordbyhagen, Kongsvinger and Gardermoen has a capacity of 871 beds in January 2022, including technical beds. Continuous assessments are made of the number of beds to be staffed

Some beds are kept in readiness for days of particularly high activity. Other beds are taken into use as a result of the development of the offer. The children's and youth clinic has established an advanced home hospital for children with five beds.

#### Operating capacity

The operative activities at Akershus University Hospital are distributed between Nordbyhagen, Kongsvinger, Ski and Gardermoen (table 2-4).

Capacity for emergency treatment and monitoring

At Akershus University Hospital, critically ill patients are cared for in the intensive care unit and post-operative unit, as well as in various monitoring units (table 2-5).

Intermediate beds for surgical patients and a medical monitoring unit have been established. The Children and Youth Clinic has also established a unit for child supervision.

### Mental healthcare and substance abuse treatment

In 2021, mental healthcare and substance abuse treatment had a total capacity of 309 beds, of which 136 were in locally based services. The largest number of inpatient places is within mental health care for adults, which in total makes up 217 of the inpatient places. The offer for children and young people with mental disorders includes 32 day and 24-hour places. Children under 12 who need round-the-clock follow-up are referred to a private institution.

In addition to 60 own beds, places are bought at private institutions for interdisciplinary specialized drug treatment. In order to meet the capacity challenge in this area, the offer has been expanded in recent years to both daytime and 24-hour services. This has resulted in an increased level of self-coverage within substance abuse treatment. Nevertheless, there is still a need to use specialized drug treatment services at Innlandet Hospital and private drug treatment institutions that have an operating agreement with Helse Sør-East.

In anticipation of a new building for hospital-based mental health care, specialist psychiatry has a shared solution, where it is partly run under its own auspices at Lurud and partly bought places from Oslo University Hospital and Sykehuset Innlandet.

The geriatric psychiatric activity is located at Skytta with 23 day beds and a large outpatient clinic.

Table 2-3: Bed capacity

Location	Standardized beds from 2022
Sengepir HO	442
Children's centre	61
Treatment building	39
Processing building intermediate	4
Treatment building monitoring	21
Treatment building intensive	10
Treatment building PO	25
NN	86
Rehab	18
AHS	5
GAR	42
COZY	103
KOS Intensive	6
COO PO	9
Total sum	871

Table 2-4: Overview of the operational capacity

Place of treatment	Number of living rooms	
Nordbyhagen central operation	12	
Nordbyhagen day surgery	8	
Kongsvinger	4	
Ski	4	
Gardermoen	5	
Sum	33	

Table 2-5: Monitoring units

	Nordbyhagen	Kongsvinger
Intensive	10	2
Surgical intermediate	4	
Postoperative	25	4
Medical monitoring	10	
Heart monitoring	11	
Neurological monitoring	4	
Neonatal intensive care	23	
Child supervision	4	
Food	8	
Sum	99	6

#### Projection



# Projection

Projections of the need for beds towards 2040 show an increasing need for beds in both somatic and mental health care.

Health South-East RHF is based on a common national model, when the population's future needs for health services are to be calculated. Through this model, they have projected the need for health services and capacity within 24hour stays, day stays and outpatient clinics for Akershus University Hospital. The needs are assessed based on both mathematical and qualitative approaches:

The mathematical one consists in the activity level in 2019 being projected based on calculations from Statistics Norway for population development and age composition.

In order to capture trends beyond population development, disease development, medical-technological development, expected conversion to day treatment and use of observation beds and patient hotels are assessed, among other things.

The same principles apply both to somatics and psychologically healthcare and substance abuse treatment, but there is a relatively large difference in how the change factors in the projections is composed.

#### 3.1. SOMATICS

In the projection model used for planning building-related measures, assumptions have been made about how the patient service will develop.

The prerequisites are based on trends and national guidelines for the specialist health service. There is uncertainty both related to factors that increase the need for health services and factors that reduce the projected need. In addition to the population development and changing age composition, the following factors of change have been taken into account:

- Epidemiology/medical development (increases the need)
- Interaction with the municipality and home (reduces the need)
- Transfer of 24-hour stay to day stay (reduces the need)
- Transfer of overnight stays (medical) to an outpatient clinic (reduces the need)
- Use of observation device (reduces the need)
- Internal efficiency improvement (fewer days in bed reduces the need)

Figures 3-1 to 3-3 show the projected capacity needs for the somatic business. It is planned to phase out the Oslo districts in several stages; In 2031, the Alna district and the offer in mental health care and substance abuse treatment for the population of Grorud and Stovner will be phased out. In 2036, the somatic offer will also be phased out for the latter two districts. This means that the capacity requirement in an intermediate period will be greater than that projected for 2040.

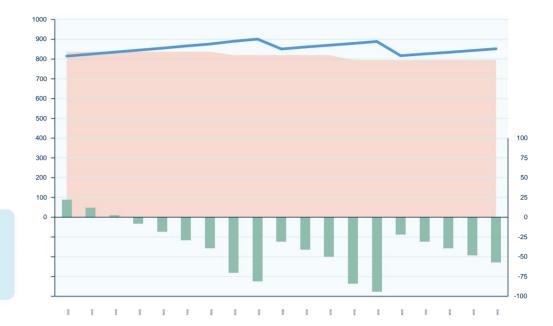
Capacity will be at its most strained in 2030. For the somatic business, there will be a temporary decline in activity in 2031 before population growth gradually increases the need, and then fall again in 2036. This development will require good planning and the use of temporary capacity in an intermediate period . With the current plan, the times for transfer will be very demanding, both related to having sufficient capacity and expertise in the years leading up to the transfer and the implementation of necessary changes after the transfers have taken place. During 2022, a regional project will be started to assess the possibilities for an earlier transfer of the districts.

**Figure 3-1:** Projection of somatic bed demand towards 2040

Today's capacity

Bed requirements during the period

Beds projected in total



Compared to today's capacity, there will be a need for 61 day treatment places in 2040, based on eight hours of operation per day (figure 3-2).

The need for outpatient rooms will increase more than population growth would indicate, partly because of a

expected conversion from 24-hour to day care, and partly as a result of new tasks that the health authority did not have in 2019 (figure 3-3). As a result of population growth, medical development and new patient services, there will be a need for 9 operating theaters in 2040 (figures 3-4).

Figure 3-2: Projection of the need for day treatment places within somatics towards 2040



# Projection

Figure 3-3: Projection of need for rooms for outpatient clinics in somatics towards 2040



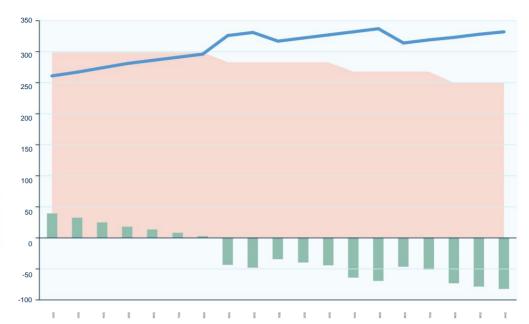
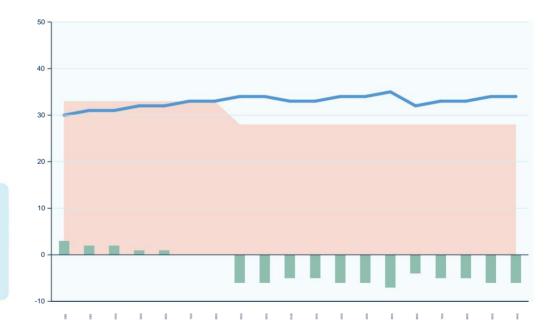


Figure 3-4: Projection of the need for operating theaters towards 2040





#### 3.2. MENTAL HEALTH CARE AND DRUG TREATMENT

The projections for mental health care and interdisciplinary specialized drug treatment are based on the fact that all parts of Oslo are scheduled to be phased out at the same time in 2031.

The projection model adjusts the starting point for the projection (activity figures) with a calculation of needs linked to different patient categories and an adjustment for variation in services between the hospital areas (for inpatient services) before a demographic projection is made.

An adjustment has also been made for professional development which reduces projected activity. Account is taken of differences in needs linked to both diagnosis groups and age.

Although the prevalence of mental health and substance abuse disorders is relatively stable in the population, there are changes in the pattern of needs that affect capacity. Among other things, on the pattern of needs that affect capacity. Among other things,
qualitative assessment of what the operating concept in an
consideration has been given to the degree of coverage in the specialist health service
extended building at Nordbyhagen will require for children and young people

nationally for the elderly over 65, patients with eating disorders and alcohol-related disorders is low.

# Adult psychiatry (VOP) 24/7

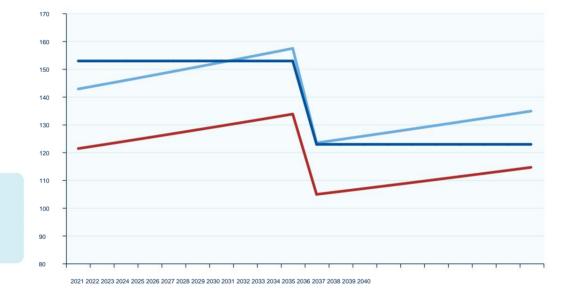
Based on an occupancy rate of 85 per cent, the projected need for inpatient places in adult psychiatry is as shown in figure 3-5.

#### Children and young people's mental health (BUP) 24-hour treatment

For the 24-hour provision within children and young people's mental health, projected needs are shown in figures 3-6. The projected activity in Groruddalen that is transferred in 2031 is,

in the projection model, relatively low compared to the proportion of the population aged 0-17 that is transferred. In the work on a new building for hospital-based mental health care, a





Capacity (VOP) Projected consumption Capacity at 85% occupancy

Figure 3-6: Projection of capacity needs for children and young people's mental health 24 hours a day towards 2040



#### Projection

of capacity. This could change the need compared to current operations.

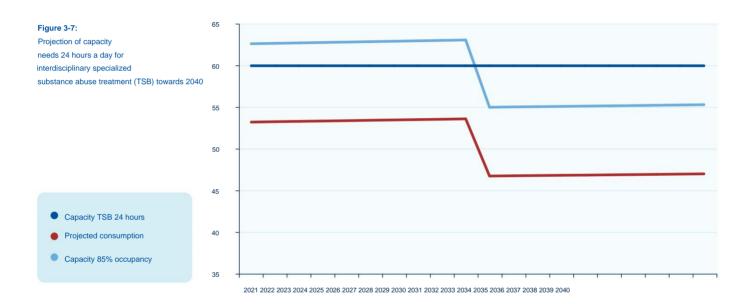
# Interdisciplinary specialized substance abuse treatment (TSB) 24 hours a day

Interdisciplinary specialist drug treatment (TSB) is in many ways a young field, which differs from the other specialist health services in some areas. It is the only specialist health service to which the municipal social services can refer. As many as nine out of ten patients in TSB have a mental disorder, of which anxiety and depression are the most common, research from the Institute of Public Health shows. The abbreviation ROP disorder refers to simultaneous substance abuse and mental illness, that is, the person has two independent disorders.

TSB inpatient treatment at Akershus University Hospital is, like other healthcare institutions in South-Eastern Health, characterized by the fact that 70 per cent of inpatient days within the specialist area are in private institutions with an operating agreement with South-Eastern Health RHF. Therefore, no decision has yet been taken on any adjustment of capacity as a consequence of the transfer of activity from Groruddalen in 2031. Projected capacity needs for TSB are shown in figure 3-7.

# Outpatient activity for BUP, VOP and TSB

The projected need for outpatient capacity as expressed in the number of consultations is shown in figure 3-8.



250,000 Figure 3-8: Projection of capacity needs for outpatient clinics within Child and Adolescent Mental Health (BUP). 200 000 adult psychiatry (VOP) and interdisciplinary specialized drug treatment (TSB) towards 2040 150,000 100,000 BUP 50 000 TSB 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040



Analysis and path selection



# Analysis and path selection

The main challenges towards 2040 will be related to population growth in combination with an increasing proportion of elderly residents.

There will be a need to expand capacity to meet the population's needs for specialist health services, and to direct efforts towards particular challenges. At the same time, the transfer of the districts to the Oslo hospitals will require significant changes up to 2040.

# 4.1. STATUS AND CHALLENGE PICTURE

Akershus University Hospital is undergoing a positive development, among other things, in terms of capacity, finances and position as a university hospital.

After an operationally and financially demanding period in the wake of the expansion of the admission area in 2011, the capacity challenges are now somewhat reduced, and the economy is good. At the same time, the health institution is strengthening itself as a research and teaching hospital.

Development of patient services will be central going forward, and emphasis should be placed on diseases that affect large patient groups. In particular, it will be necessary to strengthen the provision for elderly patients with complex conditions, and for a rapidly increasing number of cancer patients. Furthermore, it will be necessary to work in new ways and adopt technology in order to be able to provide good specialist healthcare services in line with needs and capacity.

Akershus University Hospital needs spatial measures to be able to meet these challenges, including:

 areas for activities that take place in premises with a very poor condition or temporary approval from the supervisory authorities

- · necessary capacity expansion
- areas for new patient services
- areas to collect scattered activities for the sake of both subjects and operational efficiency
- change in land requirements in the period up to 2040 as a result of the transfer of the Oslo districts

#### 4.2. ROAD CHOICE

The choice of professional focus areas and structure for the business indicates the direction for the further development of Akershus University Hospital.

The need to create good, holistic patient processes and strong professional environments is the basis for the design of building-related measures.

# Academic focus areas

There are five areas that stand out as particularly challenging in the run-up to 2040:

• The elderly patient •

Cancer diagnosis and treatment

• Acutely and critically ill patients •

Mental healthcare and substance abuse treatment

Children and young people

Separate programs have been established for each of these areas to plan and implement development measures. A partial plan has been drawn up for each area that specifies measures within a four-year perspective.

#### The elderly patient

There is a need to adapt the offer to the increasing proportion of elderly people in the population. There will be more and more patients with agerelated diseases such as dementia, geriatric psychiatry, cardiovascular disease, kidney failure and cancer. Many of these will have chronic and complex conditions that require collaboration between several specialties and professional groups.

The activity must be arranged so that the offer to the elderly patients is coordinated as best as possible.

There is a need to adapt the offer to a growing proportion of elderly people in the population

Because these patients often need close follow-up even after discharge, it will be particularly important to have good routines and systems for interaction with the municipalities.

Some elderly patients will need services from both the municipality and the hospital.

In line with the goals of the development plan, a program for the elderly patient has been established with the aim of meeting these challenges. The projects that have been initiated are wide-ranging. For patients who have to go to hospital, adapted procedures have been established for some groups of older patients. An example of this is the provision of orthogeriatrics for hip fracture patients and closer follow-up of patients with cognitive impairment. Furthermore, there is close cooperation with the municipalities to succeed in integrated healthcare services for vulnerable patients with complex needs, as well as digital home follow-up of patients with chronic illness

In order to be successful with the investment in the elderly patient, a course of treatment must be developed that is adapted to the patient's disease profile, health skills and coping skills.

This requires a large degree of cooperation across disciplines and professional groups, and with the municipal health service. Joint objectives will be decisive in being able to develop new ways of offering services and the use of technological tools.

Coordination of expertise and interdisciplinary services will help to make the services better and more efficient, and facilitate integrated research, development and innovation.

At the same time, the patient's own resources must be used in order to be able to take responsibility for their own life and their illness.

#### Cancer diagnosis and treatment

Cancer patients are another group that will require a lot of attention in the coming years. A large increase in the incidence of cancer and new forms of cancer treatment will require that investigation and treatment are at a high professional level and in line with national action programmes.

The rapid development within the field creates a need for a special focus on cancer, which will involve an escalation to better and more precise diagnostics, a more comprehensive treatment offer, as well as strengthening specialist expertise and research.

A particular challenge is linked to radiation therapy.

In the metropolitan area, today only Oslo University Hospital can offer this, which creates challenging transitions between hospitals and great pressure on radiation capacity. Helse Sør-East has decided that a larger part of radiation treatment will be decentralised. Akershus University Hospital is among the healthcare institutions that will establish radiation services in the coming years. Realization of such a measure will be of great importance both for patient processes and the professional development of the cancer service.

A program has also been established for the cancer area, where an important objective is to create holistic patient services and good coordination of the various functions linked to diagnostics and treatment. Furthermore, several projects and initiatives have been initiated or planned that will contribute to both increased quality.

and to meet future challenges and opportunities within the cancer area.

Among other things, separate oncology beds have been established for patients who have a great need for specialized oncological follow-up.

Active work is also being done to achieve a good workflow across organizational units, and a professional community about patient processes.

Prehabilitation is a special effort to prepare patients for a demanding treatment

Prehabilitation is a special effort to prepare patients for a demanding treatmen period.

This has become a very successful measure for gastrosurgical patients, and is suitable for further dissemination.

Akershus University Hospital is already a large cancer hospital, and diagnoses and treats most cancer patients itself. This applies to both adults and children with cancer. However, several patient processes require close collaboration with Oslo University Hospital. Furthermore, there is a need for good coordination with municipalities and GPs, so that patient processes are perceived as holistic and effective.

# Acutely and critically ill patients

As Norway's largest acute care hospital, it is crucial for Akershus
University Hospital that the offer to the acutely and critically ill patients works well
and maintains a high professional quality. In order to create a good and holistic
offer for the sickest patients, a program has been established to coordinate
development measures. It is crucial that the services offered are holistic with the
right dimensioning, and work throughout the entire chain.

The company accepts relatively few critically ill patients, but a large volume of acutely ill patients. All critically ill patients are treated at Nordbyhagen, while patients with urgent needs are received at Nordbyhagen and Kongsvinger.

In addition, separate receptions have been established linked to the children's and youth clinic and the women's clinic, as well as an orthopedic emergency outpatient clinic. All patients, including elective patients, draw on the same resources. It is therefore important to have solutions such as

#### Analysis and path selection

looks after patients and relatives in a good way, and that the employees experience mastery in everyday work.

Population growth puts increased pressure on capacity.

As a result, operations have been strained for a number of critical functions, such as the emergency department, central surgery, intensive care, monitoring and anaesthesia. With more and more simultaneity challenges linked to elective and immediate care treatment, it is important to succeed with a comprehensive approach to capacity planning. Particularly in the monitoring and intensive care area, it is demanding to use personnel and land resources optimally. Among other things, it is necessary to bring about even better collaboration between divisions and clinics that handle acutely and critically ill patients.

Another central challenge is to achieve sufficient flow in the emergency department and rapid clarification of the patients' condition, so that they can proceed to the necessary additional examinations and treatment. The collaboration with the bed areas is particularly important to give the patients the follow-up they need and to avoid long stays in the emergency department.

Through the corona pandemic, the healthcare company really tested its ability to mobilize quickly and maintain a high level of preparedness over a longer period of time. This period emphasized the importance of good planning, cross-functional collaboration and clear decision-making lines. The pandemic also made it clear that it is necessary to ensure that preparedness is properly dimensioned.

This particularly applies to the intensive care unit, where there has been a shortage of specialist nurses for several years.

The collaboration with the bed areas is particularly important to give patients the follow-up they need and to avoid long stays in the emergency department

Extensive work has been initiated to find good solutions for patient treatment, including good utilization of the operating capacity, strengthening of the emergency department, and strengthening of the anesthesia services. Furthermore, thrombectomy services have been established for stroke patients and invasive cardiology. During the planning period, it is necessary to work further on achieving holistic services, good patient flow and sufficient capacity.

Competence and staffing should be special areas of effort.

Mental healthcare and substance abuse treatment

The national health and hospital plan points to the importance of strengthening mental health care and substance abuse treatment. Within these specialist areas, patients are particularly vulnerable. It is therefore very important that good, individually tailored offers are provided, and that they are followed up with good municipal offers.

The acute psychiatric ward has an increase in the number of admissions which is higher than what the annual growth in the population would indicate. This challenges the entire acute psychiatric treatment chain. In order to reduce the capacity challenge, there is a need for close cooperation between hospitals, municipalities, GPs and pre-hospital services.

Coordination of local and hospital-based services will be important for these patients, but also for patients with long-term illness or changing needs. Arrangements must be made for individual experiences to be used in the treatment, and for the patient to be invited to take responsibility for their own recovery through joint choice.

Similarly as in cancer treatment, package procedures have been established in mental health care and interdisciplinary specialized drug treatment. The package processes must create good processes with sufficient progression and predictability for the patient.

As part of the preparations for moving into the new building, an organizational development process has been initiated.

Children and young people

In line with the guidelines in the National Health and Hospital Plan, children and young people are included as a thematic focus area for Akershus University Hospital. Patient services for children and young people are already organized thematically today. The children's and youth clinic has local and area responsibility for the somatic provision for children up to the age of 18, and must ensure a safe emergency provision and elective services at the outpatient clinic, day treatment and habilitation

As a university clinic, it will also contribute to the education of health personnel and conduct its own research. The offer within mental health care is mainly gathered in the division for mental health care, but a department for children and young people's mental health has also been established in the children's and youth clinic.

There is close cooperation between these professional communities.

With this organisation, diagnostics and treatment are gathered around the patient, so that a holistic interdisciplinary offer can be provided to newborns, children and young people.

The children's center model is recommended by the Ministry of Health and Care, the Directorate of Health and the Norwegian Association of Paediatricians. The approach contributes to better patient safety and resource utilization, while at the same time facilitating research and competence development across specialties and occupational groups. Ambitions and areas of effort going forward are to strengthen and further develop the center model.

Later years' change in the disease panorama means an increased proportion of children with chronic somatic disease, serious somatic disease and stress-related psychosomatic conditions. Children and young people must be treated outside hospital to the greatest extent possible, and the development is in the direction of more outpatient clinics, day treatment and home hospitals.

At the same time, several of those admitted will have a serious illness and a great need for monitoring and an interdisciplinary approach.

Many births mean that the neonatal intensive care unit must preserve and

further develop their preparedness and care for sick newborns.

Medical developments make it possible to save more children, and some will have to be followed for a lifetime. There is a growing need for the specialist health service to have personnel with specialist expertise in pediatric diseases. At the same time, it is important to establish good cooperation with other hospitals, homes and municipalities. Furthermore, it should be an ambition to integrate clinic and research to a greater extent than previously, and to carry out more drug studies adapted to children and your markey peopytement ment area.

Arrangements must be made for collaboration between healthcare personnel across specialities, occupational groups and treatment levels, so that good and effective treatment processes are created. This can be done by identifying thematic focus areas, where professionals and functions come together to discuss patient processes. Primarily, it will be about a way of working, and will not necessarily entail a change in organisation. Frameworks and forms of cooperation will be investigated in more detail for each

#### Structure for the business

The work on capacity and capacity utilization has shown that wellplanned stays result in the most efficient patient progression.

There is a growing need for collaboration across occupational groups, subjects and specialties, so that patients receive the most holistic follow-up possible. This is positive for both patients and professional environments. A key question will be how the good processes are created, and who must work closely together to realize them.

Thematic organization of patient services

Both medical and patient-perceived quality are closely linked to good patient outcomes. By planning well, seeing the individual patient and following how the condition is, it will be safer to be a patient. An important move will be to orient the activity about the patient.

There is a growing need for collaboration across professional groups, subjects and specialties, so that patients receive the most holistic follow-up possible

For the patient, there will be fewer service providers to turn to. It should be the staff, and not the patient, who must ensure the best possible overall patient care. This will provide better patient safety, interdisciplinary resource utilization and competence development. In the coming period, Akershus University Hospital will continue to work with the thematic



Analysis and path selection



the approach within the five academic focus areas.

The experience gained from these processes will be useful for the further development of the business, and lay the foundation for establishing new thematic ventures.

#### Technological development

Technological solutions must contribute to the hospital being able to further develop and improve patient services. Technology will be a central means of meeting an increased need for specialist healthcare, and will create new opportunities both for patients, employees and the organization of the business.

The development in the population, the age composition of the population, changes in the picture of illness and the citizens' expectations of quality and standard will have great significance for the planning of the hospital of the future.

Many patients will be able to be treated and followed up in their own home. Technological tools can better facilitate comprehensive patient processes across hospitals and levels of care. New knowledge and technology will also help to strengthen patient safety and quality in patient care.

Akershus University Hospital must stay up-to-date on future technology, and must adopt new solutions in patient treatment in a structured and planned manner.

In order to achieve the greatest possible benefit for patients and staff, good plans must be made to adapt operations to a new everyday life, in line with specific objectives for patient treatment Technology can contribute to making everyday work easier for the employees, linked to the many important daily decisions in connection with the examination and treatment of patients, and with advanced clinical procedures that require a great degree of skill. The employees need tools that are easily accessible and that can give them greater security in the performance of their tasks. With the help of technology, the employees can get a better basis for making clinical decisions, or quickly refresh their knowledge of practical procedures. Extraction of data will be able to facilitate management decisions related to the management of the business, so that proper operation and a safe framework for the clinical work are facilitated.

It is a regional goal that clinical personnel should spend as much time as possible in patient-related work. Increased mobility will be crucial to achieving this. Today, the employees spend time away from the patient to document in the patient record and coordinate the work with others involved in patient care. In order to be able to give the patient the best possible and effective treatment, arrangements must be made so that it can take place to a greater extent where the patient is; whether at home or in a hospital bed. Better opportunities to work outside the hospital, for example from a home office, will also give employees increased flexibility and better conditions for doing their tasks efficiently. An example is home examination within imaging, which provides greater availability to radiological rearguards.

Modernization of patient care is necessary to meet the growing need for specialist healthcare services. Both financial frameworks and access to health personnel set limitations for further growth with the current operating model.

Akershus University Hospital must find new ways to offer patient care. Some patients can be followed up at home. With this, they can have a simpler everyday life and more time for work or leisure activities. At the same time, the hospital is relieved by fewer treatments requiring attendance.

With more specialization within the medical disciplines, a need is created to collaborate more across disciplines and between hospitals. The use of technology can facilitate information exchange and collaboration without physical meetings. Virtual network solutions can also contribute to more equal treatment across geographical areas, because more people can gain access to specialist expertise in an efficient way.

The population has an expectation of better accessibility to health services and easier communication with health personnel. Digital tools are now offered in many service areas in society, and for patients and relatives it is natural that this should also apply to the specialist healthcare service.

The population has an expectation of better accessibility to health services and easier communication with health personnel

In order to create good patient processes, there is a need for even closer cooperation with other hospitals and levels of care. Some patients also need the treatment to be coordinated with other community functions, for example kindergarten, school and NAV. This can be done more efficiently and safely with adapted technological solutions.

## Personnel

The right composition of personnel and expertise contributes to creating good health services for patients, relatives and users. Perceived competence and quality is achieved through skilled employees. Further developing, retaining and attracting competent employees is therefore central.

A plan will be drawn up where the short- and long-term competence needs and composition are defined and specified.

The work with plans and measures within competence, education and recruitment must take place in close cooperation with relevant professional environments, and involve employees, shop stewards, safety representatives and users. The collaboration with municipalities, educational institutions, research and innovation environments is a central element in the work to assess competence needs going forward.

It is important to map staffing needs created by measures linked to business development. New skills needs, job shifting and division of labor between different professional groups are important factors. There is currently a shortage of several key skill groups such as specialist nurses, for example intensive care nurses and midwives. In line with an increasing need for health services, there may also be a general shortage of nurses. It is also demanding to recruit within several of the medical specialties. Kongsvinger Hospital has a particular recruitment challenge. At the same time, there will be a need for a review of whether the company needs less expertise.

It is necessary to work holistically to meet the need for personnel in all specialist and treatment areas, and at all treatment sites in the short and long term. The goal is to make Akershus University Hospital an attractive workplace, both for current and future employees. Here, recruitment strategies and plans to retain employees will be key elements.

Integration of research and clinic

New knowledge must benefit patients from an early stage. Implementation of new specialist knowledge and methodology in the clinical business is an important task. To the greatest extent possible, patients should be offered the opportunity to participate in clinical trials to gain access to new medicines and treatment methods.

It is important that continuous development contributes to reducing the distance between research and practical patient treatment. It will be particularly important to strengthen the offer linked to diseases that affect many patients, and where specialist expertise is at a particularly high level.

In this way, subjects and research can be promoted in central treatment areas. A key area is personalized medicine, where close collaboration between research environments, diagnostic units and clinics is essential to provide optimal treatment.

## Assessments related to building measures

Academic priorities, as well as the need for beds and office space, are key factors in the preparation of proposals for building-related measures.

Barley for cancer and somatics

Health South-East has decided that a radiation unit will be established at Akershus University Hospital. Due to the strict requirements for shielding high-voltage radiation machines, it will not be possible to realize a radiation center without a new building with specially built radiation bunkers.

Furthermore, it is a goal to co-locate functions and professional environments that have close collaboration in patient processes.

#### Analysis and path selection

The health authority needs capacity expansion within the somatic business. It is a clear objective that the company must have the capacity to take care of the local and area hospital needs of patients from its own admission area.

There will therefore be a need for an expansion of the somatic capacity at Nordbyhagen, in addition to the areas at Kongsvinger Hospital having to be used as well as possible.

Operational improvements, conversion of 24-hour treatment to day and outpatient services as well as the use of technology will be able to reduce the need for beds somewhat, but at the same time require some area expansion for day treatment and outpatient clinics. New work processes will also require other areas, for example for video consultation.

Reallocation of hospital areas that are not currently used for patient treatment will similarly increase the bed capacity somewhat, while there will be a need to find new solutions for offices, staff rooms and other functions.

Even with maximum utilization of the current area, it will be difficult to meet future needs without a capacity expansion

Even with maximum utilization of the current area, it will be difficult to meet future needs without a capacity expansion. This includes both beds, outpatient clinics, day treatment, diagnostics and operating theatres. A new

cancer and somatic buildings are therefore being planned, and have reached the concept phase.

Building for mental health care

In order to maintain professional quality, safety and operational efficiency, it will be necessary to bring together hospital-based mental health care. A new building at Nordbyhagen is being planned, and has reached the pre-project phase. The new building will be central to the further development of treatment services and specialist environments.

Appropriate premises for administrative functions

A new building for administrative functions is being planned. With new premises, it will be possible to plan for an efficient and modern office solution with a sufficient number of places. At the same time, it will be possible to free up areas for patient treatment; either through the reuse of plot area after the demolition of temporary buildings, or by reallocating rooms in permanent buildings.

Offices and meeting rooms can be found in several places today; both in permanent and temporary buildings. Some of these are in poor condition. For some of the buildings, there is only a temporary use permit, and they have long since reached their expected lifespan. There is therefore a need for new buildings for office functions.

#### Circumstances affecting the capacity requirement It

has been decided that the districts of Alna, Grorud and Stovner in Oslo will be transferred from to the Oslo hospital area. For mental health care and substance abuse treatment, the districts are to be phased out at the same time in 2031. For somatics, Alna will be phased out first in 2031 and the others in 2036. There is still uncertainty related to the transfer times, and it will start during 2022

## Assessment of the feasibility of the plan elements

Choice	What does it require?	Assessment of execution ability		
Academic focus areas	Competence, cross-functional collaboration, professional prioritization	Can be implemented within today's financial framework		
Structural approach	Planning patient progress, cross-collaboration and collaboration partners, meeting places	Can be implemented within today's financial framework		
Changes in the recording area	Reorganization of the business to an alternately higher and lower level in line with the phasing out of the Oslo districts	Will have a significant negative impact on the economy		
Cancer and somatic buildings	New building at Nordbyhagen Replacement building for administrative area	Requires financial surplus for equity and taking out loans		
Building for hospital-based mental health care	New building at Nordbyhagen	Requires financial surplus for equity and taking out loans		
Appropriate premises for administrative functions	New building at Nordbyhagen	Requires financial surplus for equity		



set up a regional project to assess the possibilities for an earlier transfer of the districts. This affects the need for temporarily expanded capacity to cover the need for the entire admission area in an intermediate phase, as well as the financial prerequisites for investing in new buildings.

#### 4.3. **RISK AND OPPORTUNITY ANALYSIS**

Sustainable finances are a prerequisite for the implementation of planned development measures.

A weak economy will increase the risk of measures being pushed forward, so that the professional gains can only be realized in many years. It is necessary that the development of business and land is carried out within the framework of the company's financial room for action. Planning and prioritization must therefore be linked to financial budget and planning processes.

The changes in the size of the admission area must be accompanied by operational adjustments to ensure that the health institution at all times has a capacity level that corresponds to the population and financial framework. In order to be able to offer the population good patient care, it is important to plan the transfers in a good way.

## 4.4. SELECTION CRITERIA

Choices made for the development of Akershus University Hospital must contribute to the best overall solution within Health South-East in terms of capacity utilization and division of tasks.

Further development of subjects and economics must be emphasised. The work will support the vision "humanly close - professionally strong". This means that the patient's best interests must be the basis, and that the healthcare company must be far ahead in the development of subjects, research and technology.

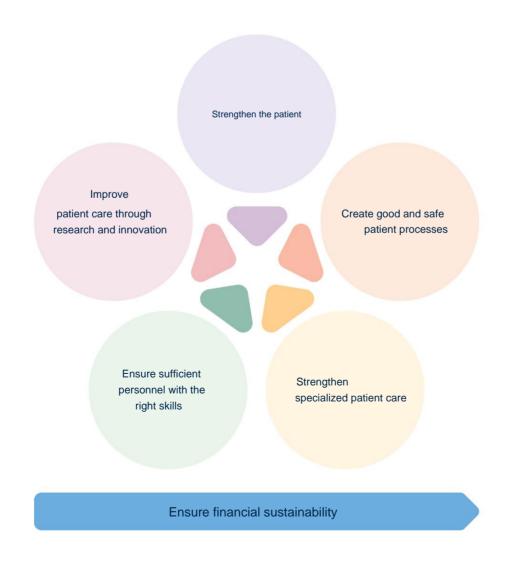
The development of the areas must be the result of choices related to the development of the business. Operational improvements and streamlining within the existing area is a continuous process that will continue throughout the planning period. More cost-intensive measures must be prioritized on the basis of subjects and finances.

Goal



## Goal

Akershus University Hospital will meet the challenges up to 2040 with the help of five main strategic goals.





#### I. STRENGTHENING THE PATIENT

The development of Akershus University Hospital will be based on the patients' needs. Patients and healthcare personnel must be equal partners.

It is important that patients have a real opportunity to influence decisions related to their own investigation and treatment.

The users' knowledge and experiences also provide an important basis for the further development of patient services.

## **II. CREATE GOOD AND SAFE PATIENT PROCESSES**

Good patient courses of high professional quality, which are adapted to the needs of the population, must be offered.

Systematic improvement work must ensure safe and high-quality health care for patients. The health authority must work closely with other parts of the health service to ensure that patients receive good follow-up when transferring to other health services.

## **III. STRENGTH SPECIALIZED TREATMENT**

Offers for diagnostics and treatment must be gathered around the patient, and the course of treatment must be experienced as a coherent whole. A comprehensive offer must be provided to large patient groups. Furthermore, the offer to patient groups where the course is particularly time-critical must be well coordinated.

The area's functions are to be strengthened and expanded through the facilitation of existing services and the establishment of new specialized functions. Professional communities must be early adopters of new knowledge in both medicine and technology. Digital home follow-up will increasingly be offered to patients, as part of a comprehensive patient service.

The offer within diagnostics will be strengthened both academically and technically, and advanced medical-technical equipment will be put into use for patients who need it.

## IV. ENSURE SUFFICIENT PERSONNEL WITH THE RIGHT EXPERTISE

Akershus University Hospital will contribute to the training of health workers who can meet society's future needs, while at the same time ensuring that its own operations have enough personnel with the right skills.

Emphasis must be placed on recruiting, training and retaining personnel.

## V. IMPROVE PATIENT TREATMENT THROUGH RESEARCH AND INNOVATION

Patient care, research, education and innovation are mutually enhancing quality and must be closely integrated.

The research must be close to the clinic and particularly oriented towards large patient processes. Research and innovation will be carried out within the entire breadth of the business, while strategic investment will be made in selected areas.

Sub-goals



## Sub-goals

The five main strategic goals are followed up by several sub-goals.

#### **6.1. STRENGTHENING THE PATIENT**

The development of Akershus University Hospital will be based on the patients' needs.

It is important that patients have a real opportunity to influence decisions related to their own investigation and treatment.

## Inform

Patients must receive good information adapted to their level of health competence, so that they can participate actively in their own treatment process. In particular, it will be important to ensure that patients with language challenges receive help to understand and to be understood themselves in conversation with healthcare personnel.

Active work must be done on patient education and communication between healthcare personnel and patients. Information to patients must be uniform, comprehensible and meet the patient's needs. In order to ensure a good decision-making process in which the patient can participate in joint selection, good information must be given about treatment alternatives.

Over 1,500 quality-assured treatment texts form a common national base for patient information on the specialist healthcare service's joint online solution. This patient information gives clinicians good opportunities to reach patients with important information about what happens before, during and after treatment. The aim is to offer good and quality-assured information where the patients are and when they need it.

The treatment texts are developed locally at the various healthcare facilities and are found in a common area that can be used by all healthcare facilities. The health institutions are encouraged to increase their use of joint treatment texts, contribute to increased

quality in existing common texts and for the production of new ones. In the future, Ahus will systematize its work to become better at creating, quality assurance and using shared patient information.

Arrangements must be made for the use of telemedicine solutions in communication with patients at home, for use in consultations where personal attendance is not necessary. Such a development requires the establishment of a secure and practical communication solution.

## Involve

The users must be consulted for advice, and suggestions from the users must be included in the work to improve patient safety, quality and user experience at Akershus University Hospital.

Not least, the users must have increased influence on their own treatment processes through active participation and discussion with the therapists. The use of collective selection tools must be increased where this is available. Several user-tailored treatment services will be established, particularly for children and young people, to provide the best possible patient experience.

Akershus University Hospital will further develop its collaboration with users, including through the use of electronic user surveys. Patients and relatives are an important driving force for renewal and improvement. User participation is also desirable in research, among other things to arrive at clinically relevant research questions.

The user committee is a central player, and it is important that users are included in large and small processes.

Akershus University Hospital also has good experience in involving young users, which will continue. Regular user surveys must also be carried out for use in the improvement work.

Patients must receive good information adapted to their level of health competence, so that they can participate actively in their own treatment process

#### Give help to master

The patients of the future will need guidance and various forms of coping measures. Medical developments will give more and more people the opportunity to live with or experience recovery from serious illness.

It is therefore necessary to further develop the current learning and mastery offer and establish new ones. Among other things, it may be appropriate to collaborate with the Cancer Society to establish a care center for peer work and other coping measures, with particular attention directed at cancer patients with a non-Western background. Furthermore, there is a need to further develop the patient school for serious diagnoses, to ensure that all larger patient groups receive sufficient information and training to be able to cope with their own everyday life.

#### **6.2. CREATE GOOD AND SAFE PATIENT PROCESSES**

## Correct patient care is the most important task for Akershus University Hospital.

The health authority must offer good patient processes that are adapted to the population's needs. Systematic improvement work must ensure safe and good health care for patients.

## Adaptation to the patient's needs

Planning and collaboration across units and specialist areas must ensure a high-quality course for each individual patient.

Patients should experience receiving good treatment, be seen and heard, and avoid unnecessary waiting time. Bottlenecks must be reduced by properly dimensioning the offer and good routines for communication and logistics.

Offers must be made that are adapted to the special needs of different patient groups.

#### **Culture for improvement**

All units must drive systematic quality improvement and draw up their own targets for the quality of patient care.

This forms the basis for follow-up of the patients during examination, treatment and care. Increased attention to infectious diseases, drug resistance and infection prevention will also be crucial for good patient safety.

Safe treatment is a fundamental prerequisite for all business development. Emphasis must be placed on using medical and healthcare knowledge and new technological solutions that make investigation, monitoring and treatment safer.

Systematic health, environment and safety work must be an integral part of the quality work. It has been shown that this will increase patient safety, while at the same time preventing injuries and illness among employees.

Safe treatment is a fundamental prerequisite for all business development.

## Collaboration on the patient across hospitals and levels of care

The health community must be further developed and strengthened. Good interaction provides a better patient service. It is a goal that patients should be followed up at the right level. This requires good communication and a common understanding of the division of responsibilities and tasks.

At the same time, there must be close cooperation regarding patients who need services from both the hospital and the municipality. Particular emphasis must be placed on developing more predictable patient processes for patients with a large and long-term need for services in the specialist health service and the municipal health service. Furthermore, measures must be implemented to give all patients a safer transition from hospital to municipal services. The use of technology and new ways of working together will be central

Akershus University Hospital will guide and share its expertise with the municipalities, and facilitate a mutual exchange of knowledge. The municipal health service has valuable knowledge of local conditions.

The Competence Bridge is a common tool for interaction and sharing expertise which will be further developed during the planning period.

Good interaction must also ensure continuity in the flow of information when switching between hospitals. All patients must be followed up in an equally good way, even if they receive their treatment in different places.

## Strengthen habilitation and rehabilitation

Modern understanding of effective health services shows that there is a connection between emergency treatment and rehabilitation. Good emergency treatment is characterized by a focus on function and rehabilitation from day one.

Rehabilitation must therefore be an integral part of the patient's course. The specialist health service must provide services within rehabilitation where there is a need for specialist expertise or specialisation, the condition is complex, and there is a need for intensive treatment.

Sub-goals

For people in need of rehabilitation, good cooperation between different actors is a necessary premise for success in the individual's rehabilitation course. Separate cooperation agreements have therefore been established with the municipalities on coordinated services, where rehabilitation is central.

There is also a good collaboration with Sunnaas hospital.

Furthermore, Akershus University Hospital actively uses the private institutional places for patients with rehabilitation needs. These institutions are represented in the ReHabilitation Network at the company.

This cooperation must be strengthened and further developed.

The habilitation offer must be provided in close collaboration with the GP and municipal service providers. Patients and relatives must receive the necessary follow-up throughout childhood, adolescence and adulthood. Special focus areas are the provision for children and young people with acquired brain damage, autism spectrum disorders and early intensive habilitation. Within habilitation for adults, it will be investigated how a comprehensive treatment offer for patients with moderate to severe developmental disabilities, autism,

#### **6.3. STRENGTH SPECIALIZED TREATMENT**

Specialized offers are to be strengthened and expanded within a holistic offer to patients.

behavioral problems and additional mental disorders can be established.

The hospital must be early adopters of new knowledge in both medicine and technology.

## Create comprehensive patient services

right treatment and a good patient experience.

In order to provide increased quality and coherence in patient treatment, and at the same time reduce waiting times as a result of shared processes,

Akershus University Hospital must have a comprehensive offer for large patient groups. Furthermore, the offer to patient groups where the course is particularly time-critical must be well coordinated.

Simulation and skills training will be central to the work to establish good teams. Collaboration across the units will be of great importance to provide the

Emphasis must be placed on good work flow in emergency departments and clarification units and close collaboration with the professional communities in the hospital, so that patients do not experience unnecessary waiting Shared functions such as surgery, anesthesia and diagnostics must be adequately dimensioned and have good logistics.

The work on operational improvement, capacity planning and preparedness will continue.

Collaboration across the units will be of great importance to provide the right treatment and a good patient experience

#### Use new knowledge and technology

Patients should feel cared for by competent health personnel who have appropriate tools for diagnostics, treatment and communication.

New knowledge, technology and methodology must be used and evaluated. This will be of crucial importance in being able to provide the best possible treatment options.

Diagnostic services are an increasingly important part of medical development, and the offer must therefore be strengthened both academically and technically. This will contribute to better diagnostics, which are central to patient treatment, including through reference functions and competence centres. Medical-technical equipment that provides a better treatment offer for important patient groups must be put into use.

Digital home follow-up will increasingly be offered to patients, as part of a comprehensive patient service.

Treatment and follow-up at home must be of the same high quality as treatment in hospital. The offer must be adapted to the patients' needs and functional level, so that it feels safe to receive digital services. The health organization will work closely with municipalities, districts and other health organizations to create good processes, especially for patients with chronic and long-term illnesses.

It is necessary to establish good technological solutions for interaction, so that communication with and about individual patients and shared services becomes easier. Furthermore, it is necessary to ensure that relevant information is available when a new body takes over treatment responsibility for the patient. It will be investigated how the healthcare community can collaborate on technological solutions. Further development of the Competence Bridge as a common platform for interaction and sharing expertise will also be central.

Modernization of ICT and clinical solutions for the healthcare organizations in Health South-East will help to strengthen patient safety and quality in patient treatment.

Akershus University Hospital must contribute actively to the regional processes and facilitate good implementation locally.

Technology will also become an important part of the work with education, training and skills development. Akershus University Hospital time. will create a good learning culture and facilitate skills development. New tools will be put into use through the production of clinical educational videos linked to the procedural work and the use of VR technology.

With the establishment of a regional center for digital learning, Akershus University Hospital will also contribute to developing good learning resources and tools useful for the entire region, in collaboration with other healthcare organisations.

#### Strengthen self-coverage and elective area functions

Good, comprehensive and efficient patient services should make it more attractive to choose Akershus University Hospital.

Patients must be offered specialized treatment that can further develop existing offers. Health South-East

has initiated an investigation into how the division of responsibilities and tasks should be between Oslo University Hospital and Akershus University Hospital within advanced cardiac medicine, which also looks at possible multi-area functions for Akershus University Hospital.

The hospital will also work to establish new treatment options, so that fewer patients have to travel to other hospitals to receive treatment. Expected activity level and competence needs must be used actively in the planning of future patient services. In 2022, in dialogue with Helse Sør-East, further work will be carried out to clarify which specialist areas Akershus University Hospital should have until 2040, including an assessment of what self-coverage the healthcare institution should have in various specialist areas.

An increased degree of self-coverage within specialized treatment offers will have a positive impact on competence building, reputation and recruitment, while at the same time strengthening the university's functions and reducing the challenges associated with seasonal variation in the level of activity. Strengthening the area functions at Akershus University Hospital will be able to relieve Oslo University Hospital, and create closer cooperation on advanced treatment.

#### 6.4. ENSURE SUFFICIENT STAFF WITH THE RIGHT SKILLS

Akershus University Hospital will contribute to the training of health workers who can meet society's future needs.

At the same time, it must ensure its own business personnel with the right skills. Emphasis must be placed on recruiting, training and retaining the necessary personnel.

#### Contribute to the education of future healthcare personnel

In order to develop the health service of the future in the best possible way, Akershus University Hospital must be a good learning and practice arena for external pupils, students and apprentices.

New technological platforms for learning and guidance, as well as new forms of work are to be used. Emphasis will be placed on digital forms of learning and simulation training. The health authority must work closely with the educational institutions to ensure completeness and coherence in the educations, and help ensure that the educational institutions' study plans are at all times in line with developments in patient care.

#### Competence development in accordance with the healthcare institution's needs

The employees' competence must be developed in accordance with the needs within the various professional areas and professional groups. Long-term and systematic planning must be the basis. Competence development must be part of one



Sub-goals

overall commitment to recruit, look after, develop and retain personnel. The traditional professional competence will have a central place in the future as well. Strong professional environments and a good working environment contribute to good patient care.

High subject-specific competence lays the foundation for innovation and the development of new methodology. There must therefore be a clear and strong connection between education, research and innovation. Furthermore, the establishment of solid interdisciplinary expertise must be stimulated to meet the need for new working methods and disease understanding.

Leadership development must be emphasized at all levels. A good leadership culture must be created that supports the health company's goals and social mission. Good organization and

## **6.5. IMPROVE PATIENT TREATMENT** THROUGH RESEARCH AND INNOVATION

Patient care, research, education and innovation must be closely integrated and contribute to mutual quality improvement.

Research will be carried out within the entire breadth of the hospital's specialist areas and within selected strategically central areas.

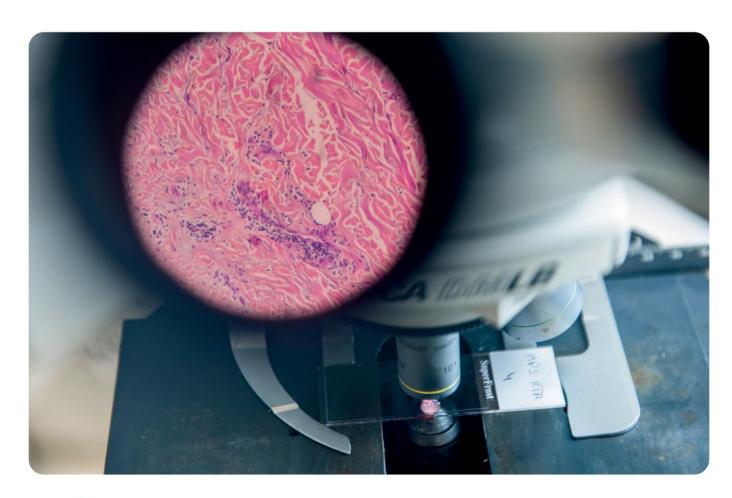
## Increase research activity

Research activity must be increased both qualitatively and quantitatively. External funding must form the foundation of the research. Emphasis will be placed on good research collaboration with the University of Oslo, OsloMet and other collaboration partners nationally and internationally.

Infrastructure for research must be reviewed and strengthened, among other things by simplifying the work of including patients in clinical trials. UiO's and the health institution's research infrastructure must be shared to a greater extent than before. Establishing arenas for collaboration across subjects, specialties and departments must also be prioritized.

management must ensure follow-up and development of the human resources clinical activities in biobanks, as well as the use of IT applications for broad data acquisition. Strategic equipment investments should be planned so that next-generation technology can be utilized as best as possible.

> Efforts will be made to stimulate more of the employees to gain research competence. In order to strengthen clinical research activity, research and innovation activity must be emphasized to a greater extent when recruiting for clinical positions. It is also a goal to establish more combined positions within the health professions.



#### Further develop the strongest research environments

Akershus University Hospital must have research activity at a high international level that supports the development of prioritized medical and healthcare investment areas.

Special support will be given to some outstanding research groups. Akershus University Hospital will be active in life science. Continuation and strengthening of biomedical research and translational research will be central.

#### Research for the benefit of patients

In order to increase knowledge about diseases that affect many patients, priority must be given to research along large patient histories.

The research must be an integrated part of the business, so that the researchers get a sufficiently large supply of comparable data, and the patients can benefit from the results through better treatment, care and care.

Arrangements must be made to include more patients in clinical studies, and new knowledge must be used in clinical operations from an early stage.

It will be important to build robust professional environments where researchers with different professional backgrounds can meet and create good projects. This is particularly valuable for clinical research, where, for example, nursing and medical approaches can complement each other.

#### Promote innovation

In order to provide good and efficient health care, it is crucial to take part in technological development.

Facilitation must be made for innovation through strengthened infrastructure and internal strategic financing. Innovation in the healthcare system must also contribute to new businesses. Special attention will therefore be paid to innovation with commercial potential.

Emphasis must be placed on research-driven innovation and collaboration on the development of better tools for diagnostics and treatment. Service innovation must be included as a natural part of the development and improvement work. The health authority will also collaborate with external actors on testing new innovative tools with the potential for significant benefit in the clinic.

#### **6.6. THEMATIC AREAS OF INVESTMENT**

## Offers on diagnostics and treatment must be gathered around the patient.

The thematic approach is about a working methodology where professionals collaborate across professional pillars, specialties and organizational units to provide the best possible offer to the patient. This should help to improve patient safety and resource utilization, at the same time as

it will facilitate professional collaboration, research and competence development to solve some of society's biggest health challenges. In the planning period, five thematic investment areas have been chosen; the elderly patient, acutely and critically ill patients, cancer diagnosis and treatment, mental health care and substance abuse treatment, as well as children and young people. Within the thematic focus areas, emphasis will be placed on working holistically to achieve the development plan's main goals.

#### The elderly patient

The activities must be arranged so that the treatment offer is best adapted to the elderly patient. This will involve closer collaboration on subjects, areas and patient progress.

Elderly patients often have chronic and complex disorders. Many need health services from various hospital departments and from the municipal health service. Arrangements must therefore be made for a course of treatment adapted to the individual.

In collaboration with municipalities and districts, new ways of offering healthcare services will be developed, and new technology will be adopted. Akershus University Hospital shall initiate and actively participate in the work with a holistic and coherent health service for elderly patients with complex needs.

Adaptation of treatment options, fewer complications, better treatment results, shorter length of stay and fewer readmissions are key goals. Akershus University Hospital must ensure sufficient personnel with the right skills to look after elderly people with complex needs. Knowledge development will involve an increased focus on pragmatic research and implementation of new knowledge.

## Good progress for acutely and critically ill patients

Akershus University Hospital has a special responsibility for developing good processes for the acutely and critically ill patients.

The offer must be properly dimensioned, and the patients must feel well looked after. There must be the necessary scope to provide emergency medical assistance and the right expertise around the patient. The capacity must be used dynamically where there is the greatest need.

The reception of the patients is crucial for the further treatment. The clarification of further progress must be effective, so that the patient can quickly receive appropriate followup at the hospital or in the municipality. Collaboration across the units will be crucial to providing the right treatment and ensuring a good patient experience.

There must be comprehensive planning of capacity and expertise linked to areas such as intensive care, monitoring and surgery. During the planning period, work will be done to create a common target image for the area and strengthen cooperation across divisions and clinics. Furthermore, it will be important to create strong professional environments where research and competence development are central.

Sub-goals

#### Cancer diagnosis and treatment

Through the gradual development and strengthening of the treatment offer for cancer, a coherent patient course and holistic cancer care will be created.

Establishing radiotherapy will help to realize this objective. Hospitals and municipalities must work closely together regarding the patients and further develop the service jointly. It involves the development of concepts for prehabilitation, package progress-home and the use of technological tools.

Arrangements must be made for strong professional environments that work closely together. This will be of great importance in providing a patient service with a high professional standard, while at the same time it will make the healthcare institution more attractive as a workplace for skilled professionals.

Cancer diagnostics will be strengthened through increased capacity, establishment of new methodology, as well as upgrading and acquisition of equipment. Work with quality targets will also be central. Research and competence development in the area of cancer must be an integral part of the business.

A large patient base provides good opportunities for establishing robust biobanks, which can contribute to strengthening the already active cancer research environment.

Through the gradual development and strengthening of the treatment offer for cancer, a coherent patient course and holistic cancer care will be created

#### Mental healthcare and substance abuse treatment

A clearer structure within mental health services is planned, where the hospital functions are gathered at Nordbyhagen, while the local offer is provided at DPS.

This will create a better distribution of work between hospital psychiatry and the DPS, and facilitate good treatment processes. Establishing a comprehensive offer for hospital-based mental health care will also help to create a highly competent and attractive professional environment, and strengthen clinical research.

The aim of mental health services and interdisciplinary specialized drug treatment is to promote independence, self-reliance and the ability to manage one's own life. Locally-based services must be the cornerstone, so that patients will receive a good treatment service as close as possible to where they live.

The work to create good treatment processes and equal offers is continued through the establishment of digital tools, arena-flexible offers, ambulatory services, outpatient clinics and other day services. Increased use of interdisciplinary outreach treatment teams will provide accessible services 24/7, necessary emergency services and access to expertise for other service providers. It is also relevant to strengthen the division of labor between the four DPSs in the enterprise to ensure patients a highly competent offer at the lowest possible level of care.

Patients with complex needs must receive combined offers. This particularly applies to patients who have a combination of mental illness and drug-related problems. The collaboration between somatics and mental healthcare must also be strengthened.

Furthermore, in collaboration with the municipalities, efforts will be made

to coordinate offers across treatment levels.

Children and young people will receive better follow-up through individually tailored treatment courses and extensive cooperation with child protection and the school health service. It is also important to achieve smooth transitions for young patients who still need mental health services after they have turned 18.

#### Children and young people

The children's and youth clinic has local and area responsibility for the somatic provision for children up to 18 years of age, and must ensure a safe emergency provision and elective services at the outpatient clinic, day treatment and habilitation.

Children and young people should, whenever possible, be treated outside hospital. Advanced home hospital gives the children and their families the opportunity to live as normal a life as possible.

Digital tools have also been used, mainly for patients with newly diagnosed type 1 diabetes. In the long term, digital tools will also be used in outpatient treatment of children and young people with other chronic conditions, which enables close follow-up and fewer visits to the hospital.

Young people have special needs and require special adaptations when dealing with the healthcare system. It is therefore planned to further develop the concept of a youth-friendly hospital with health services adapted to young people. Furthermore, work will be done to improve and treat psychological problems in children, as well as establish interdisciplinary courses for patients with complex symptom disorders.

The critically ill child needs highly specialized expertise and adapted premises and equipment. Building a separate child monitoring unit is part of a gradual strengthening of the intensive care and monitoring capacity at the hospital. Work will also be continued towards full-fledged intensive care for critically ill newborns. Furthermore, it is planned to strengthen the good collaboration with Oslo University Hospital.

This will create better overall patient processes and strengthen professional environments.

The habilitation offer for children and young people is to be strengthened. This involves, among other things, strengthening intensive habilitation for children with cerebral palsy, and developing forward-looking models for early intervention for young children waitheraudinapoloyees feel seen, valued and thrive.

The research initiative relating to children and young people aims to gain a better understanding, diagnosis and treatment of complex everyday pediatric problems.

The research will range from top international research to local quality assurance work.

#### 6.7. FINANCIAL SUSTAINABILITY

## Economic sustainability is the foundation for all activity and further development.

With annual profits, Akershus University Hospital will have a solid financial basis to realize the objectives in the development plan, and to maintain and further develop existing buildings and equipment. Investment capacity can be increased through performance improvements in ongoing operations.

## Financial understanding and motivation at all management levels

The culture of thinking about finances as an integral part of the business must be further developed at all levels. Managers must, to a greater extent than before, emphasize follow-up and performance assurance. A model has been developed that measures the company's costs per patient (KPP), which can show trends over time and variation between individual patients receiving the same treatment. Using this model as a management tool could contribute to an increased understanding of the connection between medical treatment and economic effects. This can provide a greater degree of accuracy when choosing improvement measures.

## Continuous and systematic cost improvement

There is a need for increased attention and knowledge of financial management throughout the organisation. The solutions chosen must be good, without being unnecessarily expensive. The employees must be loyal to concluded agreements and established systems. In addition, it will be necessary to prioritize harder than before in order to achieve the necessary profit.

## Recruit, look after and retain personnel

It makes good sense to have employees who provide highquality services, work efficiently and collaborate well with their colleagues. The work to recruit personnel with the right skills, create a good and developing working environment, and retain valuable labor is therefore central. It will be important to ensure close follow-up of the employees.

Good cooperation with the security service and shop stewards will be crucial to ensure utilization of the overall expertise in the business and create good and safe working environments

## Increase productivity

Efficient operation is the key to increased productivity. The capacity of the future will depend on how the health institution's overall expertise is used and developed. It is necessary to have good planning of patient processes, collaboration across departments and an emphasis on continuous improvement.

Targeted work must be done to avoid unnecessary or inefficient work processes, for example through the establishment of standardized methodology. Arrangements must also be made for a good distribution of responsibilities and tasks between healthcare personnel groups, based on professional criteria and the need for competence. In addition, it may be relevant to use larger parts of the day to make better use of treatment rooms and operating

Continuous work to improve hospital stays and reduce the number of admissions should ensure good capacity, while at the same time avoiding unnecessary waiting time during the hospital stay. The work on capacity and capacity utilization must be continued and strengthened through a capacity program that encompasses the entire business.

The conversion of treatment services from 24-hour to day and outpatient clinics and the use of technology must continue in line with national and regional guidelines. Patients who do not need a 24-hour stay shall, to the greatest extent possible, be offered an appointment. In order to reduce the risk of deadlines being missed, the capacity of day and outpatient services must be expanded if necessary.

It makes good sense to have employees who provide high-quality services, work efficiently and collaborate well with their colleagues

## Property strategy



# Property strategy

The property strategy is a comprehensive plan that describes the condition, use and plans for the areas managed by the health authority.

## 7.1. BACKGROUND

The strategy must build up under targets for the development plan, and be in line with the long-term financial plan.

Based on the property strategy, land use plans are drawn up for each treatment site. These are specified in development projects at building level, as well as a disposal plan where this is relevant.

A maintenance strategy is included

also in the property strategy, and forms the basis for maintenance plans at building level. The relationship between different plans is shown in Figure 7-1.

The property strategy must tie the company's property portfolio together at an overall level. Until now, the company has worked at land use plan and project level. Figure 7-2 shows the plan hierarchy.

Figure 7-1: Organization of plans and strategies

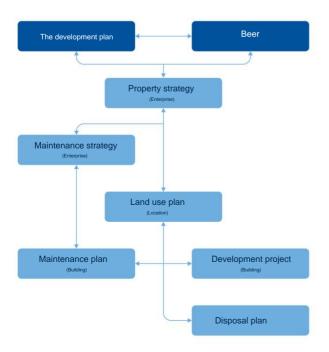
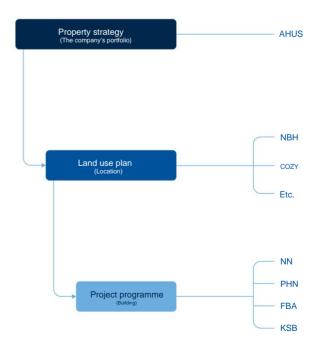


Figure 7-2: Plans in the property strategy



#### 7.2. CURRENT SITUATION OF THE PROPERTY PORTFOLIO

Akershus University Hospital currently operates in 68 buildings spread across 18 treatment centres, both owned and leased.

The company has its headquarters at Nordbyhagen, in Lørenskog municipality.

#### Today's property portfolio - owned and leased The

portfolio totals 293,075 square meters (gross area) of building stock, of which 240,600 square meters are owned and 52,475 square meters are leased.

At Nordbyhagen, Stiftelsen Akershus University
Hospital housing company rents out housing to employees.
They operate 600 rental units. At Kongsvinger, Akershus University
Hospital disposes of a total of 107 staff housing.
Among them, Kongsvinger housing foundation owns 69 homes
and Akershus University Hospital owns 38 homes.
Housing management is budgeted based on the assumption of being
self-financing. All costs in connection with the operation and maintenance
of owned homes must be covered by the income for renting out the

#### Geography

An overview of the treatment sites is shown on the map in Figure 7-3.

## Areas

Land use

On the basis of the classification of area according to the classification system for healthcare buildings, figure 7-4 shows an overview of the area distribution in various healthcare facilities.

The areas shown are total square meters of gross area per healthcare facility, excluding parking area and housing.

As of today, 44 per cent of the area Akershus University
Hospital disposes of is directly linked to somatic (25 per cent) and psychiatric
(19 per cent) activities.

The remaining 56 percent of the area is traffic area (24 percent), technical rooms (15 percent) and other (17 percent).

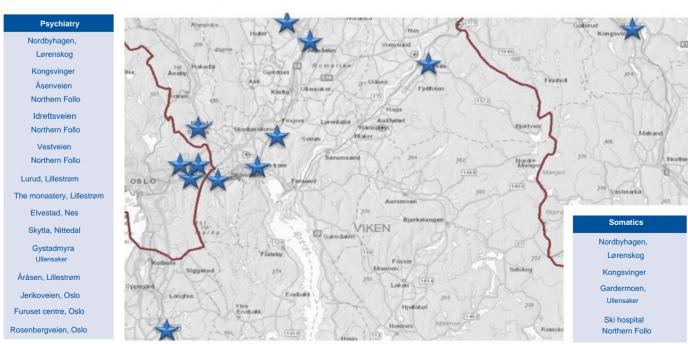
The proportion of area that is not directly linked to patient-related functions is somewhat higher in healthcare facilities with newer buildings, such as Akershus University Hospital, than in those with older buildings. This is because newer buildings require a larger proportion of technical area. In the other category are areas linked to the core business's support functions, such as central staff, administrative workplaces, logistics and cleaning.

## Area efficiency

Area efficiency at a hospital is measured, at an overall level, by looking at the ratio between square meters of gross area compared to patient treatments. Through a national benchmarking program (Norwegian network for Næringseiendom (NfN) Hospitals), Akershus University Hospital compares its area efficiency with other hospitals in Norway.

Patient activity is then converted into a production coefficient that includes bed days, day treatments and outpatient consultations, somatics and psychiatry. Opening hours for outpatient clinics, distance between functions (patient, staff and goods flow), including distance to or between shared functions such as lab and imaging, as well as general logistics, affect the area efficiency.

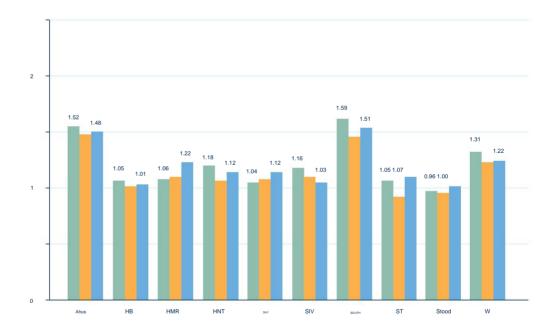




#### Property strategy

100% Figure 7-4: 8% Area distribution in square meters BTA taken from NfN report 2021 21% 24% 6% 25% 25% (figures from 2020) 51% 9% 10% 13% 15% 11% 15% 47% 33% 24% 25% 25% 30% 26% 34% 11% Other 23% 13% 12% Psychiatry 13% 13% 19% 12% 30% Somatics 15% 36% Technical Room 27% 21% 21% Traffic area НВ HMR HNT UNN VV

Figure 7-5: Area efficiency taken from NfN Hospital report 2021





Compared to other hospitals in the network, Akershus University Hospital has the highest area efficiency (figure 7-5). This means that the healthcare institution has many patients per square metre, and with this little or no vacant space. In everyday life, this is felt by the fact that any changed area requirements in the clinic are complicated, there are few or no available rooms, and changes require expensive conversions.

### Area utilization

Area utilization describes the extent to which the areas are in use based on area of use and available opening hours. It is worth noting that hospitals have a very special design

and special technical requirements for rooms, depending on the room's function. Size and location of various functions, as well as equipment and furnishing of the room, depends on the clinical activity for which the areas are to be used.

Stood

In the main building at Nordbyhagen, the bed areas are essentially the same. This gives flexibility with regard to the placement of clinics in different bed areas. In the case of a changeover, the rooms can be used as they are, with some adaptations such as reprogramming of support functions such as pipe mail, goods delivery and the system in medicine rooms. Outpatient rooms have lower flexibility. This is due, among other things, to medical-technical equipment being placed according to clinical and type of survey. Some equipment is difficult to move. Rooms and associated areas for operations, laboratories and diagnostic imaging have very little flexibility because special technical requirements are placed on such special rooms.

Utilization analyses; multiple use and joint use

With the high land efficiency, there is a scarcity of land at almost all processing sites, and demand is high. Nevertheless, there is room for improvement when it comes to efficient use of land.

Sharing space across organizational units or functions can provide better utilization. The same can be the use of an area for several purposes. This means that in many cases a need for land can be met without having to build a new one.

In 2018, an analysis was made of the degree of use of day and outpatient rooms at Nordbyhagen. The analysis showed that some polyclinics had spare capacity that could have been used by others with a need for more rooms. There were also variations in the utilization of the rooms during the week.

#### Flow efficiency

The flow efficiency is a measure of how quickly something "flows through a system". This is a central factor in the work of placing functions in a hospital building.

The unit of measurement is the degree of waiting time. A related term is proximity need; i.e. which functions are highly dependent on each other. Flow efficiency is both about the flow of patients, employees and goods. The existing one

the building mass today creates a number of challenges related to flow efficiency; partly because of the geographical spread and partly as a result of the nature of the buildings. In the case of internal replacements, flow efficiency is an important

factor, and can create challenges when placing functions.

With the high area efficiency and the scarcity of land, this becomes a complex puzzle.

#### State

In the last 8-9 years, a lot of work has been done on questions related to maintenance. It has been important to put in place a strategy at enterprise level related to financing, regular mapping of areas, prioritization of measures and implementation.

The areas being assessed are owned premises and rented premises where Akershus University Hospital has maintenance responsibility. Data from the surveys are registered in a national database called Multimap. During the survey, the condition of the building elements being examined is assessed. The assessments are made by setting condition grades (TG) on the building elements. Assessments that are the basis for TG 0 -3 are shown in table 7-1.

Table 7-2 shows an overview of the distribution of condition degrees in the company's areas at an overall aggregated level. It appears that the proportion of areas with TG 2 and 3 constitutes 66% of the total area. TG3 and its scope do not come across well in such an overview with a percentage share of the area. Therefore, the number of building parts with TG3 that must be handled within 5 years has been specified. Careful attention is paid to areas with TG2 and TG3.

Table 7-1: Condition levels for buildings

TG 0	No symptoms	No deviations compared to new			
TG 1 We	ak symptoms	Good/satisfactory standard. All laws and regulations are taken care of. Some wear and aging from new build standard			
TG 2	Moderately severe symptoms A certain extent of errors and deficiencies and/or deviations from laws and regulations that require technical improvement				
TG 3	Severe symptoms	Extensive damage, faults and defects. A lot of wear and tear. Considerable need for technical improvement. Deviations from laws and regulations			

Table 7-2: Distribution of condition degrees aggregated

Place of treatment	Assessed area	Age in 2020	TG0 (%)	TG1 (%)	TG2 (%)	TG3 (%)	Total weighted TG	Number of TG3
Total for the health institution	268,240	25	0	34	65	1	1.6	267
Nordbyhagen	214,924	22	0	33	67	1	1.6	100
Kongsvinger	25,496	45	0	7	2	1	1.69	8
SK Skedsmo - Lurud, Åråsen, Bråten, Klosteret	17,500	40	0	29	71	0	1.71	48
Ullensaker, Nes - Gystadmyra and Elvestad	5820	17	0	99	0	1	1.21	13
Vestveien	4500	10	0	100	0	0	1.44	8

## Property strategy

The area-weighted age for the property portfolio is 25 years. This is in the lower tier, compared to portfolios of a similar size. The main building at Nordbyhagen, which was completed in 2008, is the leader in terms of the area-weighted age of the healthcare institution. The area-weighted age of the building stock at the other treatment sites is 10-40 years, with the exception of the buildings in Kongsvinger, which are almost 60 years old. Figures 7-6 and 7-7 below show the development.

Annual plans are drawn up for the maintenance of the building stock, based on recorded levels of condition and criticality in the event of an accident. An overarching goal is that by 2030, the company must have an aggregate condition rating (TG) of 1.2 for the building stock as a whole, as well as value-preserving maintenance for the building stock that must last. The annual maintenance plans are coordinated with development projects and plans for the disposal of properties. With good planning, several needs can be met in the same project.

Figure 7-6: Trends for the degrees of condition collected in the period 2013-2020



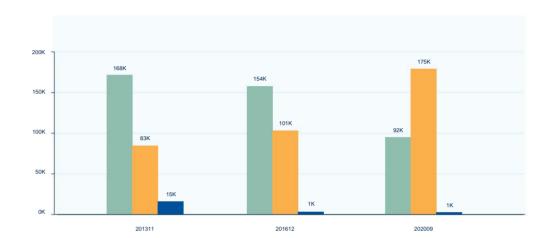


Figure 7-7: Development per subject in the period 2013-2020



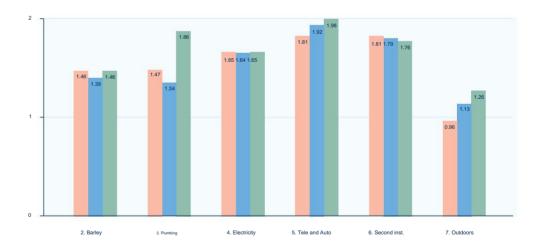
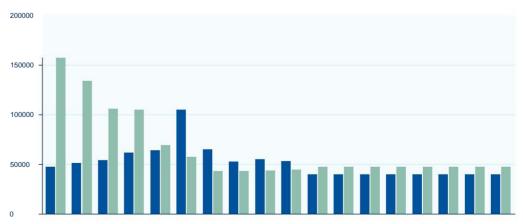


Figure 7-8: Estimated maintenance needs until 2040





2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040



Despite an increased level of investment linked to maintenance in the last two years, there is a need for increased efforts to avoid further growth in the maintenance backlog. Estimated investment needs up to 2040 are shown in Figure 7-8.

The property portfolio's adaptability and suitability

The frequency of change in hospitals is high. Adaptability is a central element in the planning work, and says something about how suitable the building mass is to meet the need for change.

Three factors are included in the assessment:

- Flexibility (F): Possibility of plan change within same function, i.e. to reorganize the usable area, excluding support system/cores. This contributes to changes in the land properties.
- (G): Flexibility and possibility of change function, i.e. changed requirements for payloads, fire protection etc.
- Elasticity (E): Possibility of increase or decrease of area in a horizontal (extension) or vertical direction (extension).

In the same way as the degree of condition, this is mapped in the national database Multimap. Akershus University Hospital has started this survey, and can greatly benefit from surveys and analyzes of adaptability and suitability that have been carried out in other healthcare institutions.

## Energy

For many years, emphasis has been placed on systematic followup of energy consumption. Degree-day-corrected energy consumption combined for the entire property portfolio is approximately 310 kWh/sqm. Factors that drive consumption up are the high activity per unit area and the large volume made up by the glass street in the main building.

In general, university hospitals also use more energy than other hospitals. There is a lot of equipment and high power consumption (176 kWh/m2), while the thermal energy demand for heating and cooling is lower (140 kW/m2). The trend in energy use is slightly decreasing. The owned buildings were energy-labelled in the period 2012-15. The certificates are valid for 10 years, and must then be renewed.

## Safety

The company's security policy and implementation plan aim to secure patients and employees, as well as the hospital's societal capacity against external threats. This applies to all treatment sites, and is adapted operationally in the event of changes that lead to new needs. The policy and associated documents are discussed in a separate document with limited access.



#### Climate and environmental goals

Akershus University Hospital was environmentally certified according to ISO 14001 in 2015. An environmental policy has been adopted and environmental targets applicable at all times. Reducing energy consumption and climate emissions have been defined goals every single year since the work on environmental management began. When a new hospital was opened in 2008, climate emissions per square meter were greatly reduced. In addition, there have been target figures for the sorting rate for waste, and employees sort significantly more than before. Reuse of furniture and building materials has not yet been used.

There has been some focus on the use of organic food in the canteen, and to a large extent projects to reduce food waste. Reducing antibiotic consumption came as a national goal in 2012, and was included as one of the company's environmental goals in 2018.

A project has been initiated to increase the share of green mobility for Ahus Nordbyhagen. In the project, proposals for measures that can contribute to increasing the proportion of green mobility in the company (more environmentally friendly solutions) will be drawn up, in accordance with the environmental targets that have been set. Measures must also be proposed that contribute to more efficient travel routes for the employees at Nordbyhagen.

> In the project, proposals for measures that can contribute to increasing the proportion of green mobility in the company will be drawn up

Sykehusbygg, commissioned by the regional health authorities, has drawn up the "Standard for climate and environment in hospital projects" which was ready in 2021. This includes new buildings, remodeling and maintenance projects, and is used when renting a larger area. Furthermore, a framework has been established for the environment and sustainability in the specialist health service, which will be a leader in the further work.

## **Plots**

Akershus University Hospital has two ongoing projects which is made possible by the municipality's strategy for the area. In 2021/22, detailed regulation of land with possibility of building area of a total of 32,000 sq m. The goal is to realize a common building for administrative staff at Nordbyhagen and a new grocery store for the Hospital staff's welfare team. It is also regulated for a plot reserve for later use.

In addition to the site, which is now being regulated in detail, there is a large area of opportunity for Akershus University Hospital strategically and professionally, as Lørenskog municipality wants a further investment in Nordbyhagen. Figure 7-9 shows an outline of planned construction projects at Nordbyhagen.

The aim is to realize a joint building for administrative staff at Nordbyhagen and a new grocery store for the Hospital staff's welfare team

#### Disposal

Akershus University Hospital has several buildings that are planned to be disposed of. On Vestveien in Nordre Follo municipality, a value development project has been launched to assess whether the property should be disposed of. As a result of the construction of a new building for hospital-based mental health care at Nordbyhagen, Lurud and Bråten are to be disposed of. In addition, up to 38 homes on Kongsvinger will be disposed of, depending on demand.

## **Growth period**

The hospital is in an exciting period of growth where capacity and services are to be increased, with conversions and extensions in both the short and long term. In the Nye nord building, administrative areas have recently been converted into new oncology beds and an outpatient clinic. There are plans for several new buildings at Nordbyhagen in the period 2023 to 2030, including a new building for hospital-based mental health care, completed in 2025-26 and a new cancer and somatics building with its own radiation unit, planned for completion by 2029. A new community building

#### Property strategy

Figure 7-9:
Large construction projects

Reconstruction NNU0/03:
 Construction work is ongoing

Skogen: Temporary office space completed

 Jointly built FBA:

 Concept work underway

6) New psychiatry building,

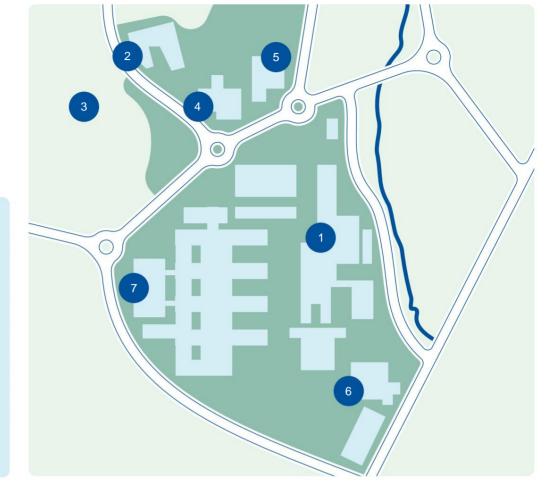
PHN: Preliminary project in progress

5) Land reserve

7) New cancer and somatic building, KSB:

Concept phase ongoing

Norwegian Women's
 Sanitary association
 NKS: Construction work is ongoing



on a shop plot right next to the hospital will from 2025 replace old buildings and office space and free up office space for patient

## 7.3. STRATEGIES FOR THE PROPERTY PORTFOLIO

The analysis of the current situation for the property shows that the company's strategic work with property is particularly characterized by three factors.

### 1) Scarcity of land

treatment.

Akershus University Hospital is the most area-efficient hospital according to the NfN Hospital benchmark in 2021.

A central challenge is that the scarcity of land reduces the

opportunity for further development of the business. The company is currently at a level where it is very difficult to find areas that support good flow efficiency. The forecast is that this scarcity of land will increase further year by year, until new cancer and somatic buildings are in place; tentatively in 2029.

## 2) Scaling up and down

The company has a growth situation for a ten-year period, which is replaced by a reduction of the admission area in two stages when the districts are transferred to Oslo University Hospital in 2031 and 2036 respectively. This entails the need to be able to expand and then reduce the area in two stages.

The highest need for land occurs just before the phasing out in 2031. It is a guiding principle for the land strategy that it cannot be built on a permanent basis for the maximum need that occurs in 2031. The need for a planned upscaling and downscaling of capacity is the background for the preparation of a strategic land plan in 2019 -2020. This contains several flexible measures, including time-limited lease agreements and the liquidation of older buildings (intermediate construction).

#### 3) Maintenance backlog

The backlog is considerable, and increased further when Kongsvinger Hospital was taken over. There are practical issues with this state of affairs related to, for example, ventilation and HSE, as well as expectations of good administrative practice, which have been pointed out by the National Audit Office, among other things. These are conditions that are reinforced by increased utilization of the building stock.

#### **New land requirements**

Strategic area plan 2020-2040 was established as a portfolio plan for area capacity. It includes areas for beds and outpatient clinics, as well as some heavy functions such as operating capacity and imaging. The strategic area plan does not cover all types of area needs, such as administrative areas, as this was thought to be solved in the existing area. This strategy has proven not to be fully feasible, and additional land requirements for the period must be anticipated.

The most central conditions are the following:

- Akershus University Hospital is moving from a current point of high area efficiency to a further need for improvement year by year.
- A new cancer and somatic building was planned from 2026.
   However, the process has dragged on, and 2029 is now the new plan. The delay creates challenges for operations in the interim period.
- An unresolved area need has been identified as a result of new development projects, imposed tasks and needs that have not been sufficiently resolved through the area plan.

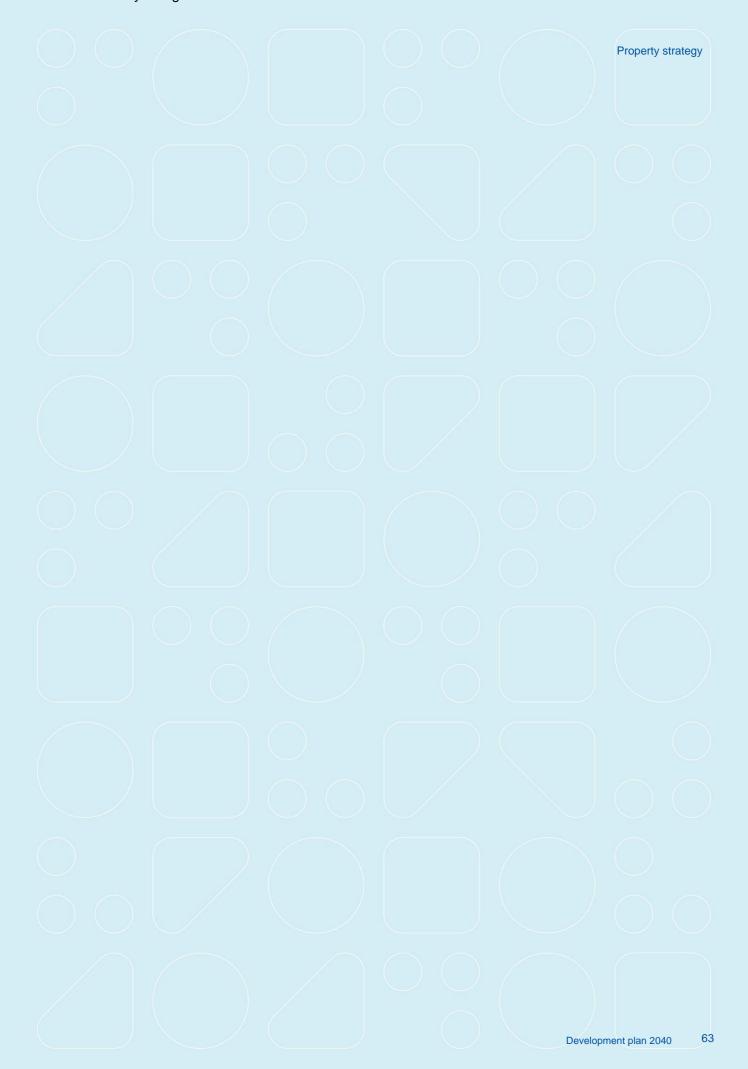
Several current strategies can help to solve the overall area challenge:

- 1. Establish targets for degree of use for each area category
- Increase area utilization further through increased use of digital solutions
- 3. Increase the area by increasing the degree of use
- Increase the area of permanent buildings connected to/ near existing buildings
- 5. Increase the area of temporary buildings connected to/ near existing buildings
- 6. Increase area by renting external locations

The choice of strategy will depend, among other things, on the available area, prioritization and finances, and will be part of the further work. A process will be initiated to establish an expected standard for the degree of use of various areas, which will form the basis for planning concrete projects. Area concepts will also be developed for special business areas, for example video consultations.







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