

The way forward is clear

"User participation is vital. Being listened to confirms that you are worth something. That has both an intrinsic value and a therapeutic value. If patients are allowed to influence their own treatment, it confirms that they are people with knowledge, understanding and a voice."

These are the words of Dorte Gytri, after her experiences as a patient receiving mental health care. This is what we are aiming for. We have a shared vision in the health service. We want to create a patient-centred health service. Achieving this will require a great deal of effort. It is a responsibility that is shared by many.

In this second National Health and Hospital Plan, we show how we will develop a patient-centred health service over the next four years. And what we need to do to achieve it. One of the main features is the establishment of 19 healthcare communities (helsefellesskap) in which hospitals and municipalities will improve the way they work together in caring for our most vulnerable patients. A variety of parties have been involved in developing the plan - patients, relatives, healthcare personnel, hospitals, municipalities and national health authorities.

I am looking forward to implementing the plan together. Together, we will take the next steps towards the target of a patient-centred health service. The way forward has never been clearer."



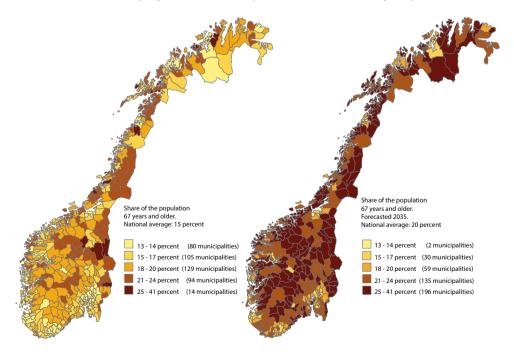
Bent Høie, Minister of Health and Care Services

National Health and Hospital Plan 2020–2023

The National Health and Hospital Plan 2020–2023 sets the direction for the development of the specialist health service and the interaction with the municipal health and care services during the period covered by the plan.

The aim is to achieve a sustainable, patient-centred health service. The patient's voice must be heard – not only when interacting with the people treating them, but also in the development of health and care services. Patients should have equal access to good-quality health services, no matter where they live. Patients and their relatives should experience predictability, reassurance and continuity, and know that professional help of high quality is readibly available - and how to access it.

We are a growing population, we are living to an older age and we expect more. This makes it difficult to reconcile wishes and options within the limited resources at our disposal. Limited access to healthcare personnel in particular will restrict the manner in which we are able to accomplish tasks. A sustainable health service therefore requires us to utilise the opportunities provided by technology, make maximum use of the skills of our employees and accomplish tasks as efficiently as possible.



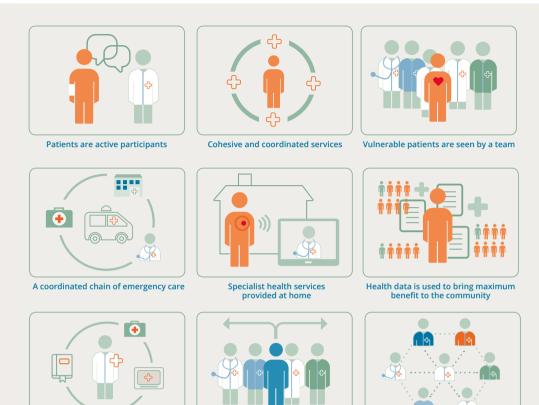


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This is the summary of the white paper containing the National Health and Hospital Plan 2020-2023 (Meld. St 7 2019-2020). The summary describes the main aims in the white paper, what the Government will do to achive them and provides examples to illustrate the desired development of the healthcare service.

Our vision



The National Health and Hospital Plan is the government's strategy for achieving a sustainable, patient-centred health service. In a patient-centred health service, the aim is for patients, relatives and healthcare personnel to experience the health and care service as follows:

Management helps to achieve change

We learn from each other

Patients are active participants in the healthcare they receive. Patients and relatives are seen and listened to – with words they understand. Shared decision-making is the norm, residents can communicate with the service digitally, and users have a say in the development of the healthcare service.

Patients experience cohesive and coordinated services across hospitals and municipalities. Healthcare personnel complement each other, know what the next stage in the patient journey needs and what it can contribute. Digital systems make their

Lifelong learning

work easier, not harder. Municipalities and hospitals work with users and GPs in the healthcare community ('helsefellesskap') to plan and develop services.

Vulnerable patients feel that services are provided in a coordinated way which is centred around them. Mobile, multidisciplinary teams take care of the most vulnerable children, young people and adults with serious and complex needs. Children and young people with mental disorders receive services at the right level and at the right time. Frail elderly people experience reassuring transitions.

Patients experience a coordinated chain of emergency care with intervention at an early stage and information following the patient throughout. In accident and emergency departments, patients are seen by staff with multidisciplinary skills who can quickly assess them and provide the right treatment.

Patients receive more specialist health services in their own home. Specialist health services which used to require patients to attend appointments in person are provided in patients' homes, using technology. This is easier for patients and frees up time for healthcare personnel to spend on other patients.

Patients find that with the use of technology, our health data is used to provide better and more precise healthcare. Patients feel confident that information about them is handled securely.

Healthcare personnel work in teams around the patient, develop services in line with knowledge about what works, and utilise the opportunities provided by technology. Healthcare personnel experience the health service as an attractive workplace which facilitates lifelong learning for everyone. Good ICT systems makes their work easier. Continuous improvement frees up more time to treat patients. Knowledge about effective approaches is made known, so that valuable time is not spent on ineffective treatments.

Managers implement essential changes – working in partnership with staff. Major challenges require major changes – which must be managed. Managers are aware of their responsibility to achieve targets, and have the support and flexibility they need to take this responsibility.

We learn from each other. Healthcare communities and outreaching hospitals ('utadvendte sykehus') become arenas for learning. Skills are shared across teams and between institutions. When initiating a new project, managers and staff ask "What can we learn from others"? At completion, they ask "Who can we share this knowledge with"?

How will we achieve this?



Create a patient-centred health service



Facilitate active participation



Establish 19 healthcare communities



Outreaching hospitals



Better mental health services



Ensure that we have a coordinated chain of emergency care



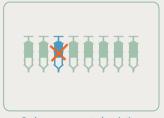
Facilitate more use of technology



Ensure sufficient and appropriate skills



Link digitalisation targets with patient treatment targets



Reduce unwarranted variation



Continue to develop financing schemes



More growth in technology and skills resources

- create a patient-centred health service. "What matters to you?" must serve as the guide for interactions between patient and healthcare personnel and in the development of health and care services.
- improve the population's health literacy and enable patients to be active participants in their own health and in the development of services. The Government aims to increase the use of remote interpreters in the specialist health service, work towards plain language and

shared decision-making. Learning and Mastery services (læring- og mestringstjenestene) will be reviewed in order to improve the training and support received by patients and relatives.

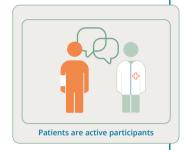
- establish 19 healthcare communities in which municipalities and health trusts develop and plan services together as equal partners. The healthcare communities should prioritise the development of services for children and young people, people with multiple chronic illnesses, people with severe mental illness and substance use disorders and frail elderly people The healthcare communities should find solutions which suit local needs and requirements, and contribute to the next National Health and Hospital Plan.
- create outreaching hospitals. Outreaching hospitals will provide more healthcare in patients' homes, collaborate better with municipal health and care services, both in person and virtually, and work more closely with other hospitals.
- develop better mental health services. The services meet the population's total need for mental health services in a sustainable manner. The patients recieve the services they need at at the most appropriate and efficient level. Further development will prioritise improving the quality of the mental health services. Key factors include better distribution of responsibilities between primary and specialist mental health services, collaboration, and taking advantage of the possibilities provided by use of technology. Special attention should be given to children, young people and users with serious and complex needs.
- ensure a cohesive and coordinated chain of emergency care. In the next strategic plans, health trusts will review emergency medical services outside of hospitals in collaboration with the municipalities, and the structure and management of hospital accident and emergency departments.
- set the direction for the use of technology in the specialist health service, and adapt the
 national framework around new ways of providing services. In the next strategic plans, the
 health trusts will set their own targets for providing specialist health services in patients'
 homes. In order to develop better healthcare services, health data should be shared within
 the healthcare sector to a greater degree than at the present.
- ensure that there are sufficient and appropriate skills to meet future demand. The health trusts should create a culture of full-time employment, and work to recruit and retain staff in all personnel groups. They will facilitate lifelong career paths for all personnel groups, with a particular focus on nurses and health workers. Further education courses for specialist nurses will be developed, and training capacity increased. The health trusts will accept more healthcare apprentices. Simulation will be employed for training purposes to a greater extent. Health trusts and municipalities in the healthcare communities will set targets for skills sharing.
- establish a clearer link between digitalisation targets and patient treatment targets. The
 value of digitalisation lies in what it can mean for the services received by patients. ICT development will be managed and coordinated more clearly.
- continue the work of reducing unwarranted variation and support a culture of sharing knowledge.
- continue to develop financing schemes in the specialist health service in order to support cohesive and coordinated services, and new ways of providing services using technology and digitalisation.
- shift the growth in resources in the specialist health service away from simply employing more staff, which is a scarce commodity, to investing in technology and skills which could reduce future demand for healthcare personnel.

The patient as an active participant

Our vision

The patient's needs serve as a guide when developing health and care services. As a matter of course, the patient is asked "what matters to you?" when decisions are made. The patient is an active participant in their own health and treatment. Good tools for shared decision-making have been developed for a range of conditions. Healthcare personnel take the patient's level of health literacy into consideration and adapt their communication accordingly. Patients with long-term health problems and needs for assistance from the specialist health service receive better and more customised training to empower them to manage their condition. Digital solutions are integrated as elements of this training and of the communication with the specialist health service. Communication between the patient and the specialist health service is comprehensible – it is clear who

a patient is to see and when, what preparations they must make, and what they can expect at the hospital. Those in need of interpretation services, will receive these more readily and with higher quality by increasing the use of remote interpreting services. Digital residents' services make it easier for residents to monitor their own health and customise their contact with the health service around their life.





User involvement

Inga Karlsen is a dedicated member of the User Committee at Nordland Hospital trust. The 85-year-old from Tysfjord has helped enormously to further the rights of Sami patients. She received the Northern Norway Regional Health Authority's user award for the work she has done, and continues to do in furthering users' interests. Inga has worked in and for geriatric care for many

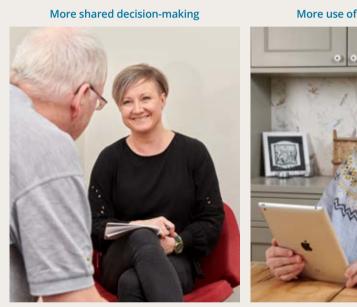
years. Her passion is dementia care, as is the fight for equal health services for the Sami population.

"Many of us take what the doctor tells us as an absolute truth, and this is probably even more so with the Sami. Providing health services to the Sami population is not about equality, but about equal status. And I would like to praise the Northern Norway Regional Health Authority here for the work they are doing on this. There is still some way to go, but we are heading in the right direction", says Inga Karlsen.

Plain language in patient letters

A survey at Helgeland Hospital Trust showed that 10-20 per cent of kidney patients and patients needing bowel examinations had not prepared for the examination/ treatment. As a consequence, only parts of the procedure could be performed, or the appointment had to be rescheduled. So that more patients could come better prepared, new patient letters were developed for these patient groups, using plain and understandable language and graphics which make it easier for patients to understand how they should prepare for the examination. Helgeland Hospital Trust will start using the new patient letters in 2019. The goal is to have fewer cancelled appointments and enquiries from patients needing clarification.

Key goals



More use of digital services



- help patients to become active participants in decisions about their health and in the development of the health services
- increase the use of remote interpretation in the specialist health service
- work to improve the health literacy of the population
- ensure that the service uses plain language when communicating with patients
- review Learning and Mastery services in order to improve the teaching received by patients and relatives
- ensure that residents have access to more digital residents' services

A cohesive and coordinated health and care service

Our vision

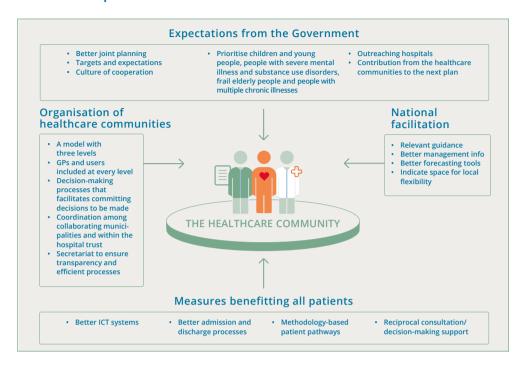
Patients and relatives experience a cohesive and coordinated health and care service, in which patients can be active participants in their own health and treatment. A strong culture for cooperation and coordination has been established, and a mutual understanding of what health trusts and municipalities need to collaborate on and how to do this. Health trusts and collaborating municipalities meet as equal partners in the healthcare community. They work with users and GPs to develop and plan services for vulnerable patient groups who need services from both levels. Suitable management information and shared forecasting tools help to ensure the same understanding of the situation and support joint planning. Health trusts and municipalities enter into agreements on locally adapted ways of meeting the need for health and care services to bring maximum benefit to patients. The Norwegian Directorate of Health provides useful guidance on local flexibility and how to organise this collaboration. The Parliament (Stortinget) reviews the National Health and Hospital Plan every four years, using this to communicate expectations to the healthcare communities regarding the development of health and care services.

The patient journey across municipalities and hospitals is typified by good handover procedures which provide patients and relatives with predictability and reassurance, the opportunity to have two-way consultations between healthcare personnel, and ICT systems which support coordination. Knowledge and experience are used to develop the patient journey. Multidisciplinary, multi-level teams look after the needs of patients with major, complex needs where appropriate. Specialist health services work with municipal health

and care services to see more people in their own homes, and share their skills – both in person and virtually. Legislation for information sharing, financing schemes and management data is adapted to suit these working methods.



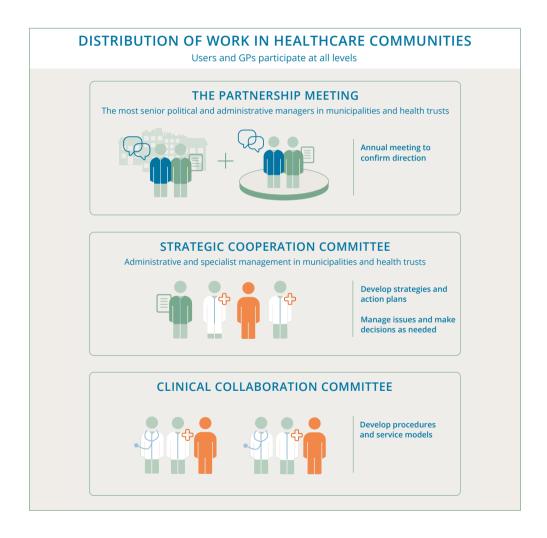
Measures to promote a cohesive and coordinated health and care service



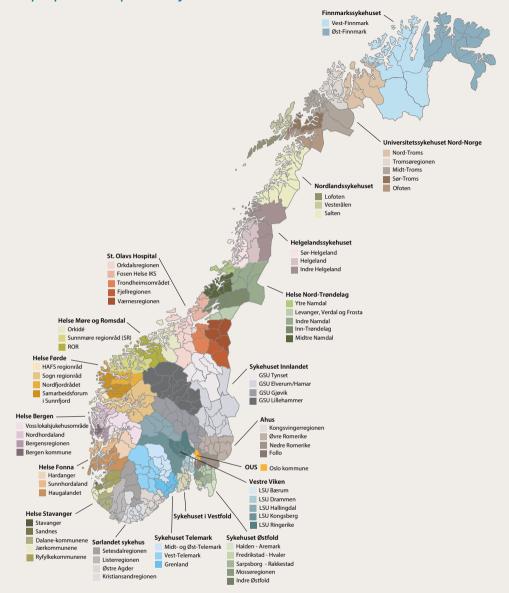
Prioritised patient groups in the healthcare communities



The government aims to establish 19 healthcare communities across municipalities and hospitals, based on the same regions as the health trusts. In these healthcare communities, representatives from health trusts, municipalities, local GPs and users will meet to plan and develop services together. Existing agreements and structures for cooperation will be used as a basis, but will be developed further. GPs should have an advisory role, the municipalities in the health trust regions should improve the way they work together, and national authorities must be clearer in their expectations of what municipalities and hospitals should achieve in the new healthcare communities. National authorities will support the healthcare communities through better management information and projection tools, and by introducing measures which improve the patient journey.



Municipal partnerships already established



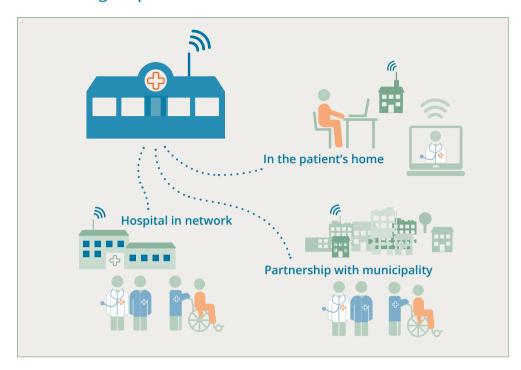
GSU - Geographical cooperation committee

LSU - Local cooperation committee

The seven municipalities in the Vestfold Hospital Trust's catchment area are not separated into groups for their dealings with the health trust.

The map illustrates partnership structures between municipalities and health trusts, based on the 2019 municipal structure, on the basis of input from the regional and local health trusts. The Ministry of Health and Care Services points out that some municipalities may not be correctly linked to their respective municipal partnerships. Changes may also be made to the municipal partnerships due to changes to the structure of municipalities which will be effective from 1 January 2020.

Outreaching hospitals



One of the goals of the patient-centred health service is for the specialist healthcare services to be provided closer to where the patients live. We must create outreaching hospitals. Specialists in big hospitals will assist specialists in smaller hospitals which are closer to the patient, specialists from hospitals will work with municipal healthcare staff in municipal arenas, and hospitals will help patients in their own homes in person or by the use of digital solutions.

Regional video outpatient clinics

Møre and Romsdal Hospital Trust offers patients video consultation at their local hospital with specialists from across the region.



Hospital at home

Oslo University Hospital provides hospital services at home for patients who have had bone marrow transplants for leukaemia. Patients can stay at home instead of being kept in isolation in hospital while their bone marrow function is returning to normal. A specialised team of nurses and doctors monitor the patient daily in their own home. The patient and their relatives are all satisfied, it takes less time for bone marrow function to return to normal, and fewer antibiotics are needed. The nutrition situation is also better for patients who are treated at home than for those treated in hospital, and few people need to stay in hospital.

- establish healthcare communities between municipalities and health trusts to ensure that the parties work together on planning and developing services.
- ensure that the healthcare communities prioritise the development of comprehensive, coordinated services for children and young people, people with severe mental illness and substance use disorders, frail elderly people and people with multiple chronic illnesses
- ensure that municipalities and health trusts in the healthcare communities agree on how to work together on planning and developing the services
- support the healthcare communities by developing better management information, forecasting and prediction tools
- ask the healthcare communities for input to the next National Health and Hospital Plan
- create outreaching hospitals
- provide space for local solutions for sharing tasks between municipalities and health trusts
- encourage the healthcare communities to discuss the characteristics of a successful culture of cooperation
- implement measures that will help to improve the patient journey
- modify financing schemes, regulations, guidance and management to support the desired vision for patient treatment and collaboration

Mental health care

Our vision

Patients participate in informed choices about treatment, based on their own needs and resources. Patients are routinely asked about their experience of the service, and this information is used actively in the continuous improvement of the service. Services are provided near patients' homes. The specialist health service offers webbased treatments which are accessible all over the country.

The services work together to provide high-quality mental health services, regardless of level. The healthcare communities plan and develop the services they offer. Planning is made easier by use of shared forecasting tools and relevant management data. Mental and somatic health and addiction problems are seen in context, and treatment plans take into account the significance that work has on health.

The specialist health service improves the way it targets those with the most extensive need for care, and supports and guides professionals providing municipal services. Municipalities provide services to those with mild and moderate mental health problems. Specialists in private practice under public funding contracts are well integrated in the public services offered.

It is easy for children, young people and families to get access to assistance. Helsenorge.no provides a list of a wide range of self-help solutions and web-based treatments. Mental healthcare is integrated in health centres and school health services, child welfare services, kindergartens and schools. The specialist health service and municipal services work well together on intervening at an early stage with children and young people, and everyone receives services at the right level.

Children, young people and adults with severe mental illness receive a full range of services from relevant parties, with a reduction in unwarranted variation of services provided. In partnership with the municipalities, the specialist health service helps to prevent crises, emergency admissions, suicides and use of force. Ambulant services and use of teams together with the municipalities have been expanded. Anyone who needs it is offered a user-controlled place. The specialist health service has an outward looking and flexible approach, resulting in fewer people needing to be admitted overnight. Hospitals provide overnight beds for those who need them in well-designed buildings. The use of force is reduced to a minimum.

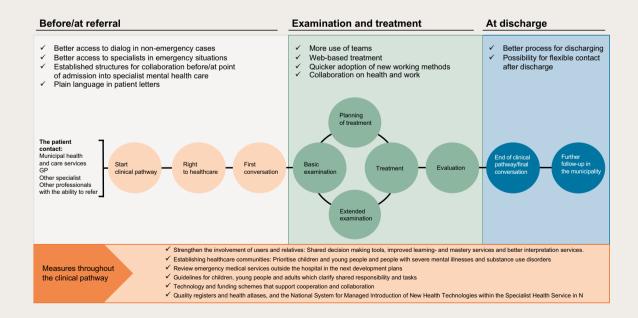
When a person needs help, it is quickly decided who should do what, and when. Clinical pathways ('pakkeforløp') for mental health and substance use disorders

have been introduced to all health regions. The service quickly adapts new forms of treatment. Quality registers, quality indicators and health atlases provide good basic knowledge about treatment and variation in the services offered. Mental health care has a solid culture of interdisciplinary learning. Employees routinely ask: "What can we learn from others?" and "Who can we share this knowledge with?"





Clinical pathways for mental health and substance abuse disorders are supported with measures in the National Health and Hospital Plan



Clarify capacity and organisation

There are currently major geographic variations in activity in mental health care. If current activity is used as a basis for projecting future needs for services, we risk perpetuating the geographic variation in services. We need a better analysis of needs and a clearer distribution of work between the various parts of the service in order to project the need for day care and residential services, outpatient clinics and ambulant services. The Norwegian Directorate of Health and regional health trusts will work together with the Norwegian Institute of Public Health and Norwegian Association of Local and Regional Authorities (KS) to deliver an analysis of the population's future needs for mental health services. The analysis and recommodations will also include the future need of services of the Sami population. The Government will continue to prioritise mental health care and multidisciplinary specialist substance abuse treatment. The analysis and projections of the future need for services will be the basis for developing a more targeted way of measuring this prioritisation.

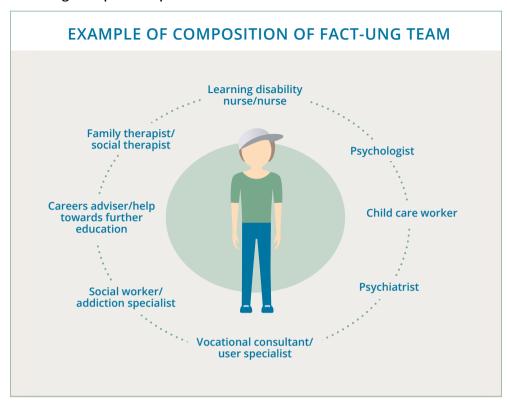
Cooperation on better residental options and services in Skien

There are groups of patients who find it difficult to live in standard accommodation, and who have a major need for services from their hospital and home municipality. Skien municipality and Telemark Hospital Trust work together to provide safe, good-quality services to each one of these patients. The plan is to establish municipal accommodation within the hospital's area, enabling the hospital and municipality to work together to develop reassuring, good-quality services for every patient. This will enable better integration between the services provided by the hospital, and the follow-up provided by the municipality. Another goal is to facilitate meaningful work and leisure activities.

A working group will clarify the schedule, scope of the service and where the homes could be built. The hospital and municipality will agree on criteria for obtaining access to these homes.



FACT-Ung - cooperation pilot



The Grünerløkka district and Lovisenberg Diaconal Hospital (Nic Waals Institute) are testing interdisciplinary outreach treatment and follow-up teams based on the FACT Ung model:

- the team provides a comprehensive service
- outreach activities (in homes or children's and young people's arenas)
- high degree of flexibility and accessibility
- multidisciplinary and interdisciplinary team (staff with skills and experience in health, social work, child welfare, family and networking)
- psychiatrists/psychologists are integrated in the team
- focus on successful coping and social inclusion through activity, work, school and education

The Norwegian Directorate of Health is contributing with implementation funding and evaluating the project with the assistance of other parties.

- acquire more knowledge about the population's future needs for mental health services in order to identify the required capacity and the organisation of the services
- aim for the healthcare communities to have a particular focus on developing good services children and young people and people with severe mental illness and substance use disorders
- implement measures to improve user participation and increase knowledge about users' experiences
- make the quality and content of the service more of a priority
- aim for new work practices and working methods to be introduced more quickly
- aim to introduce ambulant interdisciplinary teams across municipalities and the specialist health service, where there is sufficient population density
- continue to develop the collaborations on work and health
- look into how specialists in private practice under public funding contracts can be included in the clinical pathway programmes
- improve services for children and young people
- improve services for users with severe and complex needs

Emergency medical services

Our vision

The population is confident that they will receive competent and rapid assistance when they need it in the event of acute illness or injury, and understand the importance of early contact via the emergency medical number 113. The population is able to provide simple life-saving first aid treatment. The emergency medical services are a coordinated chain, based on teamwork and cooperation between municipalities and health trusts. Good teamwork prevents unnecessary emergency admissions. The service has competent, well-prepared staff who have received training and practice in working as a team. The emergency medical chain has been developed on the basis of relevant and reliable management information. Health trusts and municipal-

ities explore and employ new working methods which improve the service offered to patients. Technology, new types of diagnostics and decision-making support results in better treatment processes, contributes to better use of resources, enables treatment to start before a patient gets to hospital, and prevents unnecessary admissions. In accident and emergency departments, patients are seen by staff with multidisciplinary skills who can quickly assess them and ensure that they receive the right treatment.



- improve skills, insight and understanding, cooperation and teamwork and ensure that resources are used effectively by the emergency medical service outside hospitals
- ensure that the health trusts work with municipalities in the healthcare communities to review emergency medical services outside hospitals in the next strategic plan
- ensure that there is a review of expert services in emergency response, emergency medicine and disaster medicine in the specialist health service
- ensure that the regulations for marine ambulances are reviewed in light of the report by the emergency committee
- ensure that there is a review of the structure, management and skills in accident and emergency departments and that measures are included in the health trusts' next strategic plan
- ensure that the national guidelines 'Specialist and organisational quality requirements for somatic accident and emergency services' are reviewed
- ensure that the Norwegian Directorate of Health works with the regional health authorities to evaluate which management information will be best suited to supporting the desired development of accident and emergency departments, and that it facilitates making this management information available for local and national use

Fastest treatment in the world for strokes

Every year, around 12,000 people in Norway experience a stroke. Speed of treatment has a major impact on the future health of stroke victims. By systematically using simulation training, Stavanger University Hospital has reduced the median time from when a patient arrives in hospital until they receive thrombolysis from 27 to 13 minutes. No other hospital in the world has reported a shorter median time. The teams train in improving the efficiency of the entire stroke treatment chain, from the time someone dials 113 and the patient is brought to the hospital's accident and emergency department, where they are x-rayed and thrombolysis treatment initiated. The simulation training deals with human factors, teamwork and communication with the patient and team. System improvements and cutting down on anything that wastes time are key factors in this training. Former stroke patients play the role of patients in the training.



Better emergency preparedness and healthcare in the Røros area

The Røros project is a partnership between St Olav's Hospital and the municipalities in the Røros area. The municipalities and hospital use modern technology like mobile sampling, video systems and other telemedicine technologies to perform advanced diagnostics in patients' homes. This saves patients from unnecessary admissions or trips to the emergency primary care centre. Healthcare personnel provide services across levels, irrespective of where they are employed.

The Røros project aims to help:

- health trusts and municipalities work together on local emergency preparedness and use ambulance personnel for other relevant health service tasks in the local community.
- personnel involved in emergency preparedness with a low incidence of emergency assignments to use their downtime to address elements of the municipality's and health trust's preventive and health-promoting work in the municipality.
- remove or reduce barriers between sectors and administrative levels, GPs, emergency medical centres, other municipal medical resources and ambulance services to form a complementary, competent, dependable resource for emergency response and healthcare in the local community.

A better chain of emergency care by sharing competence

The treatment patients receive before they get to hospital can have a major impact on their outcome. The Emergency Chain Project in Telemark emphasises the importance of improving and developing cooperation with the municipalities in order to create a better emergency health service. The project involves Telemark Hospital Trust, the ambulance service, Emergency Medical Communication Centre (EMCC), emergency medical centres, GPs, municipalities and other parties. Improving skills in the municipal health and care service is an important part of the project. The staff in the home care service play a key role, because they tend to be the first to see the patient. They receive training in assessing emergency situations and learn procedures for handling a range of situations. The staff in the home nursing service have been provided with bags of emergency equipment which makes them better prepared in emergency situations.

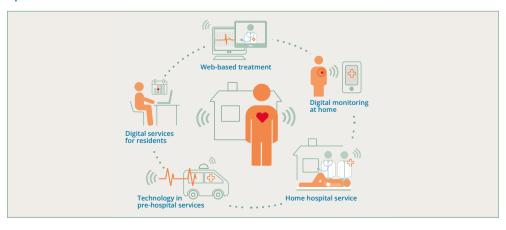
Technology in a patient-centred health service

Our vision

Services which used to require patients to come to the hospital or meet health-care personnel in person are now provided to patients through video consultations, follow-up based on patient reported data and sensor technology, and by web-based treatment programmes. For vulnerable patient groups, medical equipment is taken to them – not the other way around. Patients feel that they are better able to cope, that they are receiving a more tailored service and that changes in their health are picked up at an earlier stage. Patients and healthcare personnel avoid unnecessary journeys. The directorates provide essential guidance on regulation, digital requirements and professional guidelines. Financing schemes facilitate the development and introduction of new working methods and new technology.

Artificial intelligence makes it possible to utilise national medical databases to provide faster and more accurate diagnostics, better treatment and a more effective use of resources. The regulations make it possible to use medical data to bring maximum benefit to the community, the directorates provide guidance on legal restrictions, and ethical problems associated with the use of artificial intelligence are handled in cooperation with other European countries. The health and care service has established a culture of innovation and knowledge-sharing, and works closely with businesses to develop the tools needed by the service and patients.

Specialist health care at home



People with spinal cord injuries are monitored via video



When I talk to the people in Sunnaas via the screen, it feels as if they are in my own home. Because it is as if they nearby, it feels as if we are in close contact. I think it is wonderful. – Ingar K Bergersen.

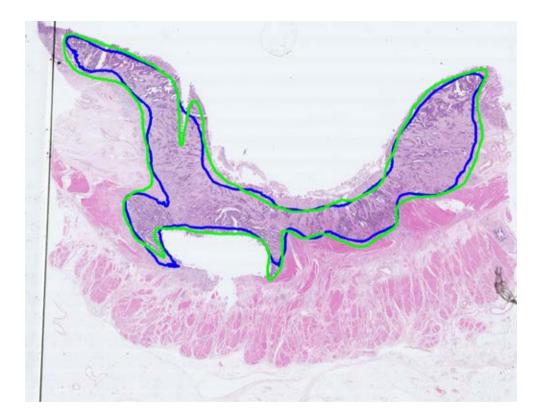
Since 2012, Sunnaas Hospital has been using video conferences to provide multidisciplinary follow-up for people with spinal cord injuries and pressure sores, in close collaboration with the home nursing service in the municipality. A cost-benefit evaluation of this patient group showed that video consultations cost 15 per cent of what physical meetings in outpatient clinics would cost, and only 3 percent of the costs which would be involved in admission. The results so far show high patient satisfaction, some improvement in quality of life and a satisfactory level of sore healing.

Home dialysis with digital monitoring

Getting treatment at home instead of travelling to hospital several times a week gives patients more freedom. Nordland Hospital Trust has been working with Telenor on a solution to improve how patients using home dialysis are monitored. Patients record their measurements on an app on their mobile, while weight and blood pressure are recorded automatically. The kidney nurse at the hospital gets a faster picture of the patient's condition than when data has to be collected and registered manually. Another benefit is that the medical personnel can be better prepared when they see patients – whether that is over the phone or in person.

Artificial intelligence in cancer treatment

The goal of the DoMore! project at Oslo University Hospital is to automate analyses of pathology images of cancerous tumours. This is achieved by using artificial intelligence, in the form of deep learning, to process high volumes of images. The image shows a tumorous area marked by a computer using deep learning. The green line was marked by a pathologist, the blue line by a computer. The computer finds the tumour and predicts the patient's prognosis with a high degree of accuracy.



- set the direction for the use of technology in the specialist health service, and adapt national framework conditions around new ways of providing services
- ensure that in the next strategic plans, the health trusts set their own targets for providing specialist health services in patients' homes
- ensure that health data can be shared to a greater degree than at present, in order to develop better healthcare
- continue the work of facilitating personalised medicine

Digitalisation – an essential component of the patient-centred health service

Our vision

There is a clearer link between digitalisation targets and patient treatment targets. Modernised patient record systems help to improve information-sharing and make work processes more efficient. Digital solutions have been established, which support cooperation and communication, internally and between municipalities and hospitals throughout the patient journey. Patients and health care personnel feel that the digital systems make their lives easier and more secure.

The digital requirements which must be in place to achieve the patient-centred health service have been identified, as well as who must do what, and in what order. Specialised expertice is made good use of by all parties. Digitalisation is clearly managed at a national level.

The population is confident that the health service protects their privacy and makes use of the opportunities provided by technology to develop better services. There is a good security culture in which personnel and patients all understand what their contribution to digital security must be, and what their personal responsibility for this is.

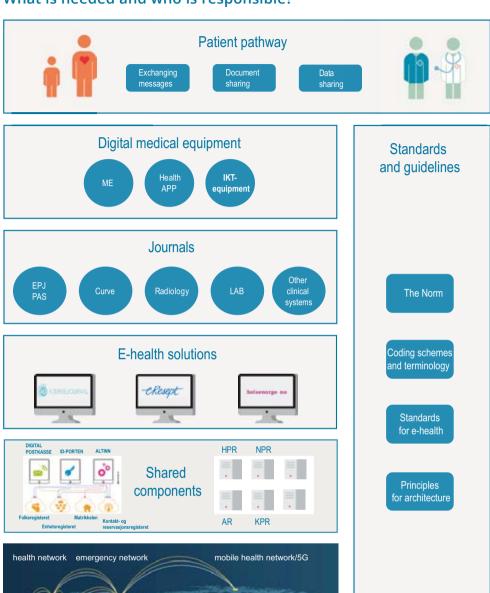


What should we do in the period 2020–2023?

The most important digitalisation measures during the planning period, in addition to modernising the patient record systems, are to:

- introduce new standards for referrals and health-related dialogue
- continue to develop summary care records (kjernejournal) with new functions such as making patient record documents available (document sharing) across specialities, regions and levels
- introduce summary care records in the municipalities in order to improve teamwork and patient security.
- introduce medication lists for patients
- start introducing national standardised language to structure the information in the patient record systems in the health and care service
- propose new e-health legislation

What is needed and who is responsible?



Critical digital infrastructure

In a digitalised health service, these digitalisation measures are important:

- Digital infrastructure and security. The service providers are responsible for the security of their systems, while the national authorities have the general responsibility of ensuring that the infrastructure is robust and secure against ICT attacks, with sufficient capacity and uptime.
- National shared components. A range of state authorities are responsible for developing and administering shared components; these include the Norwegian National Registry, ID-porten and Norwegian Patient Registry.
- National standards and guidelines. The Norwegian Directorate of eHealth has the main responsibility for coordinating the establishment of frameworks for these.
- National e-health solutions. The Norwegian Directorate of eHealth prepares strategies and plans for developing these solutions, including helsenorge. no and summary care records ('kjernejournal'). Norsk Helsenett SF has been charged with administration, operation and development, while the service providers are responsible for adopting the solutions.
- Patient record systems. Those responsible for providing the services are also responsible for procuring and operating the systems within the framework established by the authorities.
- Digital medical equipment. Those responsible for providing the health care services are also responsible for procuring and operating the equipments within the framework established by the authorities.

Helseplattformen shows what is required to digitalise a service.

Digitalisation is triggered by technology, but mostly involves organisational development and changes in work processes. Experiences from Helseplattformen in Central Norway illustrate this. The aim of the Helseplattformen project is to introduce new, common patient records in hospitals and municipalities throughout Central Norway. Helseplattformen also aims to improve quality in patient treatment, improve patient security, provide more user-friendly systems and thereby enable health care personnel to perform their tasks better and more efficiently. As well as introducing the technology itself, much of the work concerns improving data quality, standardising health-related content and work processes and developing a management structure. A team of 200 expert specialists from across the health service in Central Norway is participating in project groups which decide specifically how work processes and the content of Helseplattformen are to be standardised. This means establishing best clinical practice. This is the first time that teams of healthcare personnel across the service have sat down together and agreed on specific health-related standards on this scale.

- set clearer targets for digitalisation through the National Health and Hospital Plan
- continue work relating to the modernisation of the patient record systems
- continue developing digital infrastructure and working with ICT security
- introduce and develop essential national e-health systems and standards
- implement measures to improve the quality and accessibility of medical data
- improve the coordination of the health regions' ICT development work
- support digitalisation in the municipal health and care service
- continue to develop the national instruments for management and coordination in the field of e-health and proposed new e-health legislation (a proposal was sent for consultation in autumn 2019)

Skills and competencies

Our vision

The health and care service performs its tasks with sustainable and realistic access to personell. 'Everyone' has recognised that tasks must be performed and distributed in new ways, that change is permanent, and that tasks must be accomplished in teams – across disciplines and institutions. The health trusts carry out systematic planning in how to meet staffing needs. Hospitals, municipalities and colleges work together to create good models for training specialist nurses, and address the need for flexible education models in the districts. All health trusts help to increase education capacity for health workers in order to meet the needs of the entire health and care service. Hospitals systematically facilitate continuous skills development. The new specialist medical course is helping to address the need for more specialists. Staff have the technological skills they need. Research is integrated in clinical practice and helps to achieve skills development and knowledge-based practice. Simulation is used actively

in teaching and when teams perform drills together. The health trusts work together on developing and sharing simulation tools. Municipalities and hospitals share skills. Good employer strategies balance the need to use healthcare personnel who trained abroad with the vulnerability that this can introduce.





Staffing and skills planning for nurses

NATIONAL Monitor access to nurses Forecast need for medical personnel **REGIONAL** National staffing model

- Work towards full-time culture, recruit and retain staff
- Strategic skills planning

LOCAL

- Personnel planning
- Work towards full-time culture
- Recruit and retain staff
- Strategic skills planning



Elisabeth Strandberg works in the Haematology Department in Oslo University Hospital. She is a nurse, professional development nurse and has qualified in advanced clinical nursing. "I have always worked with patients who have blood disorders, and I think that the field is demanding but rewarding. Challenging days mean that we need to work well in teams in the department, enjoy working there, are open and have a good working partnership", said Elisabeth. She works in a highly specialised department. However, she chose to study a general course. "In advanced treatment, it is important to see the whole patient. That is why it is so important to have good general nursing skills, and it is what makes work on the ward so rewarding".



New tasks for health workers

"When I started as a health worker, more than 30 years ago, my tasks mainly involved care and nursing of patients. Now, and particularly since we moved into the new hospital here at Kalnes, my working day is very different", says Thorleif Johan Brønn of Østfold Hospital Trust. "For example, we take blood samples, perform NEWS scores, which is a system to detect deterioration in a patient's condition at an early stage, change dressings, help people with equipment and contact municipalities when patients are discharged – and we still provide care and nursing for patients". Thorleif emphasises how important it is for health workers to spend plenty of time with patients, because their observations are vital in determining what treatment is provided by the rest of the patient's team.

Thorleif believes that professional development is essential - for the team treating the patient, for the patients and not least for the health workers themselves. There are good learning opportunities in the workplace, and further education options are tailored around the needs of the health and care services. "We need to make use of the opportunities for lifelong learning and improving our skills", Thorleif believes.



- encourage the healthcare communities to set specific targets for skills-sharing between the specialist health service and the municipal health and care service.
- ask the health trusts to create a plan to ensure that there are sufficient skills. Lifelong learning and a culture of full-time employment shall be facilitated. Nurses and health workers shall be prioritised in this planning work.
- establish a national system for monitoring access to and the need for nurses across the health and care service
- increase the number of study places for specialist nurses in the fields of anaesthesia care, paediatric care, intensive care, post-operative care and cancer care, based on known needs
- review courses for specialist nurses in the fields of anaesthesia, paediatric care, intensive care, post-operative care and cancer care
- revise multidisciplinary further education courses in mental health and addiction work, and establish a new Master's course for nurses in mental health and substance use disorders
- look into the need for nurses with general clinical skills in hospitals, and facilitate the development of a course providing such skills
- increase the number of apprentices training in healthcare and other programmes relevant to hospitals The work of increasing the number of healthcare apprentices shall be prioritised during the period of the plan
- establish a training office for apprentices in healthcare and other relevant programmes in each health trust Health trusts can work together on the training offices where appropriate
- ensure that the regional health trusts, under the leadership of the Western Norway Regional Health Authority, establish a national competence-sharing project in order to further the aim of attracting more apprentices during the period of the plan
- ask the Western Norway Regional Health Authority to establish a national network for sharing methods for the development of simulation facilities, and for sharing these between the health trusts

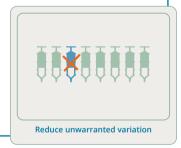
Can we make better use of our resources?

Our vision

A culture for continuous improvement work has been established locally. Changes are implemented more quickly than in the past, and knowledge about what works is more quickly disseminated between departments and hospitals. Hospitals work more systematically at phasing in and out methods, based on the principles of prioritisation and updated knowledge. *Choosing wisely* is established as the general approach among clinicians. Knowledge about unwarranted variation, partly through health atlases, are actively used in specialist standardisation and management work in order to support this improvement work. Essential management information is available to managers at all levels, and first-line managers have the flexibility and decision-making support to enable them to implement improvement work. The Ministry of Health and Care Services specifies general prioritisations in the National Health and Hospital Plan every four years.

Patient injuries linked to medication, infections and falls have been reduced, and new potential risks to patient safety are detected early and followed up

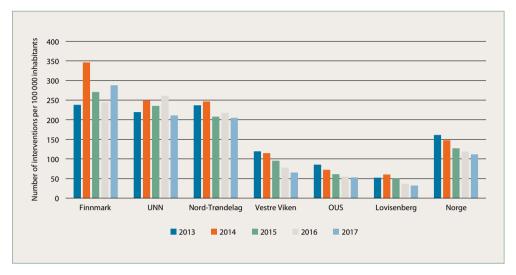
with preventive measures. There is a general culture of transparency in hospitals with regard to undesirable incidents. Undesirable patient incidents are reported internally, and followed up with a view to learning and prevention. The risk of patient injuries is assessed when planning and implementing measures.



Unwarranted variation

There is considerable variation within many fields in the health service. Variation is unwarranted when it cannot be explained by differences in demographics, geography, morbidity or other factors outside the hospital's control. The degree to which the observed variation can be regarded as unwarranted may vary between types of treatments. Random variation will be higher for uncommon treatments. A slightly greater variation may be justified for treatments where there are geographical differences in the population's morbidity. The figure below illustrates variation in the number of shoulder operations performed in selected health trusts and the country as a whole. Variation has increased, and this specific health service appears not to be equally distributed through the population.

Number of interventions per 100,000 inhabitants, adjusted for gender and age.



Source: Centre for Clinical Documentation and Evaluation (SKDE)



Increasing numbers of patients on the waiting list and a rise in the number of cancelled appointments was making work stressful for the staff at the Telemark Hospital Trust's orthopaedic outpatient clinic. This stress could be a potential risk to patient safety, and new measures had to be taken to reverse the trend. More than 50 measures were developed, tested, evaluated and adjusted. The best and most effective of these measures were then introduced in the outpatient clinic. A shared

Improvement project at orthopaedic outpatient clinic, Telemark Hospital Trust

50 measures were developed, tested, evaluated and adjusted. The best and most effective of these measures were then introduced in the outpatient clinic. A shared staffing plan was introduced for all occupational groups in order to avoid duplication of work, it was clarified which occupational groups could/should perform which types of treatment, and how much time should be allocated to each treatment. The measures have yielded a number of good results, including:

- The number of cancelled appointments has been reduced significantly. This has also led to a reduction in the number of telephone enquiries from patients.
- The capacity of foundation doctors (FY-1) is better utilised. They are improving their skills, with the result that the hospital is meeting its education and training goals. This also frees up time for experienced doctors to look at the more advanced diagnoses.
- Many unnecessary tasks for secretaries have been eliminated, which means that they can spend more time on activities that create value for patients and staff.
- As a result of the project, there is a better understanding of how the hospital can work on continuous improvement in its daily operations, to ensure that the good results are maintained and improved even further.

Pharmacists' skills are improving patient safety

Clinical pharmacists in the hospitals have skills which help to improve patient treatment and reduce costs. Clinical pharmacy has been introduced at many hospitals in order to ensure that the right medications are used. They provide advice and guidance to doctors, nurses and managers on the rational use of medication, and on the correct combination of medication and medical equipment. The pharmacists also participate in patient treatment. Western Norway Regional Health Authority and other regions have pharmacists in several accident and emergency units who attend to medication reconciliation on arrival. The Northern Norway Regional Health Authority has clinical pharmacists in its intensive care departments who evaluate antibiotic dosages at the start of treatments for sepsis patients. The correct dosage is crucial in terms of treatment outcome and length of hospital stay for these patients. The Central Norway Regional Health Authority has introduced 'antibiotic pharmacists' on wards in order to reduce antibiotic use in hospitals. The Southern and Eastern Norway Regional Health Authority has implemented projects which show that the contribution by clinical pharmacists affects survival in patients with multiple illnesses, and length of time between admissions.

- continue the work of reducing unwarranted variation in consumption and effectiveness
- continue the work of improving patient safety

Financing in a patient-centred health service

Our vision

We have identified how we would like the service to develop, and financing schemes support these developments. Financing is not considered to be an obstacle to new and effective ways of providing services, and it has become more agile. The regional health trusts are involved and make systematic con-

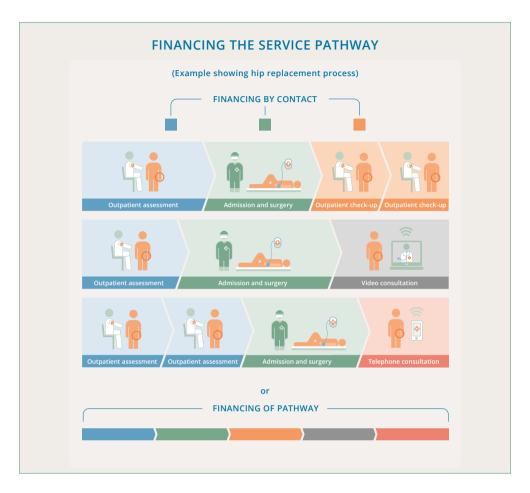
tributions by means of assessing which developments we would like to see in services, which then form the basis for developing financing schemes. Quality-based financing has been introduced in order to support key targets for the development of the specialist health service, particularly the targets of better cooperation and increased digitalisation.



What we have done in recent years

- Moved services into patients' homes through the use of technology: From 2019, all video consultations are funded in the same way as consultations in person. Telephone consultations in the field of somatics will be included in the scheme from 2020.
- More efficient use of human resources in hospitals: More types of healthcare personnel, not just doctors, can initiate reimbursements to hospitals. Types of healthcare personnel have been added gradually over several years. Additional new personnel groups will be included in the scheme from 2020.
- More ambulant and team-based treatment: Hospitals receive additional reimbursement when healthcare personnel provide treatment outside the walls of the hospital.
 Ambulant outreach treatment teams in outpatient mental health care and multidisciplinary specialist substance abuse treatment are included in activity-based financing.
- Cooperation between service levels: Work has been done to ensure that municipalities can provide certain defined specialist health services on behalf of hospitals, when the services provided are regulated by agreements between the service levels. These activities will then be covered by activity-based financing. In the fields of outpatient mental health care and multidisciplinary specialist substance abuse treatment cooperation meetings between the specialist and primary health services are included in the scheme.
- Shift of activity from residential to outpatient treatment: In recent years, there have been many changes to activity-based financing in order to encourage more day surgery in the health service and make effective clarifications regarding emergency assistance.

 More start-to-finish and patient-oriented service pathways in the specialist health service: In some fields, financing is linked to pathways rather than individual activities.



The figure shows how financing individual contacts in a service pathway differs from financing an entire service pathway. Fitting a hip prosthesis involves assessment, treatment and follow-up, which together constitute a service pathway in the specialist health service. The figure shows three variations in how this pathway can be structured. The content of the three pathways varies in terms of specific activities, meaning that the revenues of a hospital using the current activity-based financing scheme will vary according to which of the three pathways is used. Alternatively, financing can be linked to the entire hip prosthesis pathway.

What we want to do next

- The financing will be made more agile
- The content of a service should decide the financing rather than who is providing the service, where the service is provided or how the service is provided
- The financing will support start-to-finish service pathways.
- The financing will support pathways across hospitals and municipalities.
- Quality-based financing shall be linked more closely to key development targets for the specialist health service.

- continue to develop activity-based financing to support the desired development of the service, with a particular focus on start-to-finish service pathways, better cooperation with municipalities and increased digitalisation
- make financing schemes more agile in order to become more sustainable in the long term
- link quality-based financing more closely to key targets for the development of the specialist health service, particularly the targets of better cooperation and increased digitalisation

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