Health buildings in Norway - a historical overview

Runar Jordåen

The purpose of this article is to provide a historical overview of the most important changes and characteristics of measures taken in relation to illness and the provision of care services, with special emphasis on how institutions have emerged and changed. Much has been written about the general history of the health service on the one hand, and about specific hospitals and facilities on the other hand, but there is no comprehensive overview of the Norwegian health institutions from the Middle Ages and to today. A decision has been made that somatic and psychiatric hospitals are to be at the centre of the presentation, as these types of institutions are at the centre of today’s health trusts and their histories are thus central to the national preservation plan. This article was written for the national preservation plan’s preliminary project.

INTRODUCTION

The history of the health measures taken through the ages and the buildings that have been raised to serve these purposes is a complex one. The health buildings tell us not only a history of medical advances and how society has handled illness and those who are ill and in need of care, they are also silent witnesses to societal ideologies, views of human life, demography, clinical pictures and conceptualisations of the state. These aspects go beyond what we today call the health sector, both because the concentration of health and care functions as state concern is a relatively new phenomenon in Norway, and because the buildings reveal so much about social conditions that fall outside of pure health issues.
For example, the differences between the hospices of the Middle Ages and the hospitals of today tell us about changes in medical knowledge and ideas about nursing and treatment, but they also tell us about totally different views of humanity and conceptualisations of the world. When the sun no longer revolves around the earth, when God no longer intervenes in everyday life and the governance of the state, when people are no longer organised according to their fixed position in society, then illness too becomes something different – and the facilities, hospices and care institutions look radically different.

The history of the health buildings is the history of how new world views and medical understandings create new architecture, new floor plans and thus new human experiences of being ill. Conversely, it is also the history of how these new physical surroundings create new human experiences and stimulate the formation of new knowledge. Health buildings have been constructed to foster health and deal with illness, but in themselves they also foster a new understanding of health and new knowledge. This history is an attempt to capture some aspects of this reciprocity that has been expressed in hospitals, nursing homes, sanatoriums, asylums and other health institutions, and in the administrative apparatuses that the institutions have been part of (church, state, the medical service ["medisinalvesenet"], the health service, etc.).

In our time, the history of the health services is characterised by the massive construction phase in the postwar period, and the optimism associated with the creation of a welfare state. In Kjartan Fløgstad's novel *Dollar Road*, Durdei Høysand, who has grown up in poverty on a barren small farm on the west coast of Norway, says the following in her exhortation to her son who grows up in the 1950s and 60s:

*In a few days I am going to hospital to have one of my breasts removed. I will travel to Bergen and lay down in a white and freshly made bed in a light-filled and nice room at Haukeland Hospital, with laboratories with all the newest equipment everywhere and body engineers in white coats will stand around the bed with X-rays and EGK [sic] and intravenous, and nod their wise heads and look down on my body as if it was a Stang or a Mohr or a Vogt or a Christie or a Heuch or a Sibbern or Selmer or Hagerup and not Durdei Høysand they were to diagnose. And I will receive the best treatment and the best care and lovely prepared food and be bowed out of the doors when I am well and have completely regained my strength, without paying one øre, for I have paid taxes and national insurance contributions my whole life. And no barefoot doctors get to approach me with their first aid kits while the rich people in the cities are operated on by doctors with expensive Italian leather shoes in specialist hospitals. That is why we need health centres and large central hospitals. Do you understand that?*

The period from 1945 to 1972 has been called the *Evang System* after Director of Health Karl Evang, who held the position from 1938 to 1972 – a period when the modern health service was created, and a great expansion of state measures for public health took place. Durdei's speech expresses the ethos of this period in terms of its optimism for the future and the belief that the expansion of the health service and health institutions could solve the problems of the era, though at the same time she speaks in a resigned manner to "those who are young in the 70s" who will come to question this story of the unshakeable truths of the welfare state.

Karl Evang and his generation of health politicians and bureaucrats started with an unflinching faith that the expansion of the health service would lead us to a healthier and better society. In 1937, Evang said: "No one has yet seen what a regularly well nourished population under modern conditions can perform. Such a population has never yet existed." The postwar programme for public health and institutional construction envisioned creating such a population, a vision that was closely associated with the social democratic project, but that also had considerable cross-party support. This way of thinking also came to influence the understanding of history: it became a story of how the modern scientific triumphs combined with the modern welfare state to push aside the old society's traditional medicine – it was easy to get a sense of standing at the apex of a development, of owning the truth about humans in stark contrast to the superstition and barbaric practices of earlier times.

While this story lives on, it has also had some setbacks. At the end of the 1970s, the postwar economic model experienced a crisis: the classical welfare state model developed some unexpected problems that led to the faith in solutions orche-
strated by the state becoming more open to debate. This took place simultaneously with critiques of institutionalisations and a questioning of established medical ideologies and practices, while at the same time hospital construction continued. Since the 1970s, we have therefore had a paradoxical situation between a continued construction and expansion of health measures and institutions, and an increasing doubt regarding whether these have led us where we intended to go. Life-style diseases have spread, and Evang’s vision of a well nourished, healthy people appears naïve in our view. Today, we are thus living with the tension between holding on to the indomitable faith in the future associated with the healthy society, and an increasing scepticism and doubt related to the excellence of our own system.

A history of the health sector written in the early 2000s will stand in the middle of this tension: on the one hand, it can be difficult to entirely free oneself of the idea of the superiority of present-day knowledge of the human body and treatment options, but on the other hand, the doubts that have replaced the optimism for the future characteristic of the immediate postwar period may also enable us to keep a critical distance to our own era. Thus we may also be better able to see the relative relationship of our era’s health regime compared to those in earlier times.

Hindsight is a tempting perspective that is difficult to get away from. For what were the hospices of the Middle Ages – with no doctors and with treatments based on prayer and herbs – compared to the advanced technological hospitals of our times, with the utmost in cutting-edge professional competencies and medical technology? But history is about understanding the past. In order to understand the hospices of earlier times, we must try to understand their reasoning, we must capture how the buildings reflected the rationality of those times, just as the buildings from our time reflect our era, our dominant ideologies, knowledge and views of humanity. In this way, the history is not one of progress (or setbacks for that matter), but is rather a history of different ways of facing illness and thus different ways of building institutions.

The story here starts in the Middle Ages, with the first Christian hospices.

The new facility for Rikshospitalet at Gausdam in Oslo. The buildings were taken into use in May 2000. According to Rikshospitalet’s presentation, the architects have emphasised light and air, and that the hospital is to be a "humanist hospital in which form, colours and materials care for the people and create a sense of safety." The facility receives 30,000 inpatients and 20,000 outpatients every year. The architects are Medplan arkitekter AS.

Photo: Pål S. Vindfallet. Rikshospitalet.
Different historians date the birth of the modern hospital to sometime between the mid-1700s to the mid-1900s. We will come back to this discussion in more detail later on in the presentation; here, we will try to understand what characterised nursing and care for the ill in the Middle Ages, and the buildings and institutions that cared for the needy. Given that the hospices of the Middle Ages have little in common with what we now call "hospitals", we must try to understand what they were. This requires us to know some of the historical context: living conditions, world views and the conceptualisations of illness in the Norwegian Middle Ages.

Society and health
The period we refer to as the Middle Ages in Norwegian history starts in about the year 1000 and goes to the Reformation in 1536 (the period from 1130 to 1350 is referred to as the High Middle Ages). This was an epoch of great changes. It included an early, simple state formation, the old world view based on Nordic mythology was slowly replaced by a Christian world view, and this also led to the development of a church apparatus. The conceptualisation of bodily ailments and the life cycle naturally underwent changes as a result of this process, and the introduction of Christianity also led to the construction of the first hospices in Norway.

DEMOGRAPHICS
Demography is the study of changes in population figures and composition. The demography of the European Middle Ages is characterised by two great plagues: the first in the 500s and 600s, and the other in the years from 1347 to 1351. Between these periods, the population grew steadily. Population estimates for the Middle Ages are rough given the lack of data, but we can assume with some certainty that the population grew steadily from the Viking Age and that it peaked around the year 1300, when it reached somewhere between 300,000 and 550,000. The first Norwegian cities emerged in the 11th Century, and in subsequent centuries these grew while others also emerged, so that 16 cities in all are mentioned in Norway in the Middle Ages. Both the population level and the development of cities are markedly lower than in the Danish and Swedish realms in the Middle Age. The exception is Bergen, which at its peak had between 5,000 and 7,000 inhabitants, which means it was a mid-size city in the European context and probably the largest in the Nordic region at the time.

Archaeologists estimate that the average life span in the Nordic region in the Middle Ages was below 30 years, due to high infant mortality rates as well as a high risk of death for adults. The society was mainly composed of farmers and slaves.

THE STATE AND CHURCH
The Norwegian realm was thinly populated and had a low degree of urbanisation. Nevertheless, a state formation emerged in the High Middle Ages. The so-called unification of the country had two phases: the first led to the creation of a kingdom in the 800s under Harald Fairhair, and the second led to the consolidation of power for the House of Sverre in the 13th Century. In the first phase, the monarchy was not a real state power and did not have much impact on the subjected areas, and the monarchy struggled to gain control over local chiefs. It was only in the 12th century that what has been called an internal and organisational national unification started. At that time, the monarchy took on more set forms, rules of succession were stipulated and the organisational unification of the realm was strengthened through national laws. In combination, this means that a state was in the process of being established in Norway for the first time.

From the time of Olav Kyrre (1066-93), the organisation of the church developed, the bishoprics in Nidaros, Bergen and Oslo were created, and in the time leading to the High Middle Ages a national church apparatus developed. In 1152 or 1153, a separate archbishopric was created in Nidaros, which
led the church to be more closely tied to the Vatican while also getting a stricter internal organisation. In other words, both the monarchy and the church expanded their power and their organisational apparatus. It is first in the High Middle Ages that we know of hospices in Norway, a development that is closely related to the establishment of the church organisation.

The Norwegian world view in the Middle Ages was characterised by both Nordic mythology and Christianity. Both of these traditions were far removed from our current understandings of the world and of humanity, which are products of the Enlightenment. Within Nordic mythology, central myths about the creation of the world were directly tied to the conception of society as divided into three groups: slaves, farmers and earls. Christianity led to a gradual introduction of other views of humanity and society, but these also differ from later humanist conceptualisations: Humans were understood in light of the divine, and religion governed everyday life in an entirely different way than it does today.

ILLNESS AND DEATH
Conceptualisations of illness also differed between Nordic mythology and Christian traditions. Within Christianity, illness was seen as punishment for sin, but could also be viewed as a test that God subjected specially selected people for (cf. the Bible’s story about Job). The conceptualisation of illness as punishment was related to the idea of the soul as superior to the body. Saving souls and healing bodies were thus closely interwoven categories. The church’s care for the ill was thus part of a continuous struggle against sin and evil, and healing from illness was equated with being saved. That relics from saints and holy places could heal people was a common belief, and in Norway this was manifested in part in the faith in St. Olav and in stories of people who were cured in miraculous ways.


The illustrations from Johan Ludvig Lostings (1810–1876) Atlas colorié de Spedalskhed (published in 1847) are on the UNESCO World Heritage List as part of the Leprosy Archives in Bergen.
Photo: Leprosy Museum St. Jørgen’s hospice.

LEPROSY
Leprosy is caused by the leprosy bacterium (Mycobacterium leprae), which was discovered by the Norwegian doctor Gerhard Armauer Hansen (hence the name Hansen’s disease in English). The disease has been well-known and has caused stigmatisation far back in history. In Europe in the Middle Ages, people with leprosy were periodically obliged to dress in particular ways and were not allowed to marry, for example. Leprosy hospices were located outside of the cities. The 1179 Council of the Lateran decreed that lepers were to be buried in separate cemeteries. The general view of illness in the Middle Ages was that it was both a punishment and a gift. In line with this, leprosy was often viewed as a purgatory on earth, which of course referred to pain and suffering, but also mean that one was prepared for death (thus having completed the cleansing that took place in purgatory).

St. George, the saint who saved a princess from a dragon, was the patron saint of lepers. The Church saw the fight against the dragon as symbolic of the fight against evil, in this context against leprosy. From the mid-1300s there are hospices named after St. George (“St. Jørgen”) throughout the Nordic countries. Leprosy was known in the Nordic region from at least the 11th Century. Among other things, the Gulating law contained the option of divorce if one spouse became infected with leprosy, and men who were affected by the disease were not required to perform military service. The Old Testament’s description of leprosy as an unclean disease was applied, and thus the isolation of lepers must be understood independently of modern concepts of infection.

stand conceptualisations of illness, and thus also “health institutions” in the Middle Ages, it is useful to be clear about this.

Nevertheless, in the European Middle Ages there is an emerging division between religion and science: it is true that these were traditions that were closely intertwined, but the growth of universities and separate medical studies in Europe shows that a way of understanding illness that was separate from other pastoral care was emerging.

The so-called Salerno school in Italy introduced a scholarly medical tradition in the European Middle Ages. In the 11th Century, this school introduced the medicine of the antiquity (with models such as Hippocrates and Galen), coupled with Arabic medicine (Greek texts that had been translated to Arabic were now translated to Latin). The establishment of universities in the High Middle Ages developed this medical tradition. In time, a differentiation between medicine and theology emerged: for instance, in 1215 the Lateran Council prohibited senior clergy from performing surgery. This was to distinguish professions from each other, not to counteract medicine.

The “scientific” medicine in the Middle Ages had a starting point in *Humourism*, a tradition that goes all the way back to the time of Hippocrates in about 400 BCE. It was based on the idea that there were four bodily fluids (blood, phlegm, yellow bile [cholera] and black bile [melancholia]), which corresponded to the four elements (air, water, fire and earth) and the balance between these fluids determined health. These fluids in turn created the four tempers: sanguine, phlegmatic, choleric and melancholic, which could be traced to an excess of one of the fluids. The principles of humorism were tenacious, and remained relatively intact up to the 1800s.

We know very little about university-trained doctors in Norway in the Middle Ages and there were no universities. As the scientific tradition did not give rise to any educational institutions, it did not grow deep roots.

There were also secular health measures in the Middle Ages. The ill, old and poor were also looked after in the old society, usually by family. In Bergen, the ill and poor were to be moved around to the different quarters of the city following a set route. Alms were a Christian duty, and in the cities a quarter of the tithes went to the poor. Putting people who for one reason or another needed care in a hospice was the exception: most people were cared for by family and in the local community. Other than this, we find no examples of the state using what we today would call medical measures to fight illness. When the Black Death hit the country in 1348-50, King Magnus Eriksson’s response was to organise masses, processions, fasts and sacrifices in order that God would show mercy on the kingdom. This emphasises once again that “health” in the Middle Ages did not exist as a separate phenomenon.

We will also see that the hospices were designed in line with this conceptualisation of illness in the Middle Ages.

**THE BLACK DEATH**

The plague named the “Black Death” probably originated in China and travelled via Central Asia to the Black Sea, where it broke out among Italian merchants who were warring with Tartars in the Crimea. They then brought the plague with them to Italy. In the course of a few years, this pestilence killed a quarter of the European population, and the demographic crisis that followed meant that the population in many places only reached the levels they had been in the early 14th century several centuries later. The plague was probably caused by the transfer of bacilli from rats to people via fleas. After an incubation period of several days, the victims experienced chest pains, vomited blood, coughed, had breathing difficulties and high fever, and internal bleeding caused black spots on the skin (hence the name).

It is estimated that the population in Norway nearly halved as a result of the Black Death. Farms were left deserted, and it was only in the in the second half of the 15th century that farming began to expand again.

*Sources: Porter 1997: 122-126.*

**The institutions**

In the pre-Christian antiquity hospices were built, such as for example the Roman *valetudinaria* for ill and wounded soldiers. However, the history of hospices in the Middle Ages has its primary origin in the monastery tradition. The word “hospice” is from the Latin *hospes*, which means guest or stranger, and in the early monasteries in the Middle East, guest houses – and in time more specific houses for the ill – were built. The dissolution of the Roman Empire led to the decline of the hospice tradition, and in Europe it is only in monasteries that we can see a continuity where houses for nursing and caring for the ill were continued. In the High Middle Ages, this tradition is gradually broken, as attempts are made to distinguish between caring for the soul and caring for the body,
while at the same time a medical tradition that was independent of the purely theological was emerging in the monastery schools. In this way, a foundation was laid for a medicine not directly tied to monasteries or the priesthood. Nevertheless, monasteries and other church centres continued to be central in the building of hospices and in the care for the poor and ill throughout the Middle Ages: at this time, "secular" medicine did not cause any extensive building. In the 1200s, universities developed in Europe and these became the centres for teaching medicine. At the same time, the church placed spiritual healing higher than physical healing: prayer and visits from priests were seen as more important than visits from doctors, as the soul was more important than the body. Most hospices in the Middle Ages were thus dominated by the spiritual aspect: they were closely connected to monasteries and churches, they were often designed as church buildings, and there were rarely doctors at the institutions.

Norway was at the European periphery, had a small population and cities were small in size and number. The medicine that emerged in Europe as a separate discipline in the High Middle Ages reached Norway only to a limited extent, and all the known hospices from this period were either part of or closely affiliated with religious institutions or foundations. The earliest Norwegian facility for the ill is the infirmary at the Augustina monastery at Halsnøy in Sunnhordland, which probably dates from the time the monastery was built in 1164. The first facility that can more justifiably be called a hospice was affiliated with the cathedral in Trondheim and is also likely from the second half of the 12th century. Several hospices were established in affiliation with churches and monasteries during the next several centuries, and the historian Rolf Grankvist estimates that a total of 14 different institutions were built during the Middle Ages (see the map p. 11). We do not know much about the architectural design of these hospices, but it has likely varied from single rooms in monasteries (such as the rooms for the ill and travelling guests at Hovedøya monastery) to separate buildings raised to fulfil hospice functions.

The hospices of the Middle Ages have often been divided into three categories: hospices for the poor, regular hospices, and leprosy hospices, but this sharp division is unlikely to correspond to reality in Norway in the Middle Ages. For instance, lepers were admitted to the ordinary hospices, probably in separate rooms or wards. In 1179, the papacy's "canon de leprosis" imposed a requirement that lepers be isolated from healthy people. In Norway, this isolation was not in place until the middle of the 13th century. Leprosy patients always comprised the chief share of the patients – and thus the Norse word for "hospice" ("spital" or "spetal") – has given the illness its Norwegian name ("spedalsk").

![The oldest hospice in Trondheim, the Maria hospice, was likely affiliated with the cathedral and run by the priests there (the canons). The hospice may have been located in the building by the Nidaros Cathedral that is currently called Kapittelhuset. Photo: Wikimedia/Wikipedia (Nidarosdomen).]

---
Norwegian hospices were mainly for the poor, as the more wealthy were cared for at home or in ecclesiastical institutions when ill.

The early hospices in the Middle Ages in Europe were often small and intended for pilgrims. Larger hospices only became common in the 12th and 13th centuries. In 1288, Sta Maria Nuova in Florence was a hospice for the "ill and poor" with just 12 beds, but in the year 1500 it had become a large facility with 10 doctors, a pharmacist and many assistants and surgeons. The development of such large hospices did not reach Norway.

In order to get a better view of the hospices in the Middle Ages, we will here take a closer look at the hospices that existed in Trondheim. Passio Olavi, a collection of stories about healing through miracles authored by Archbishop Øystein in the second half of the 12th century, mentions "the hospice by the church", which shows that a hospice existed in Trondheim at this time. A century later, sources mention "Mariaspitalen", which is likely the same hospice that Passio Olavi referenced. Rolf Grankvist believes that this Maria hospice must have been a so-called canonical hospice of the old order. Canons were the priests who along with the bishop constituted the cathedral chapters in the episcopal church and they were called choir brothers because they were placed in the Cathedral choir. According to church regulations, they were to contribute 1/10 of their income to a hospice – in other words a canon hospice. Several such hospices are known on the Continent, and these were characterised by often being located close to the cathedrals and that they were built like churches, with choirs and naves, where the latter simultaneously functioned as the hospice ward. In these hospices, the ill were placed in the nave, in beds that enabled them to look to the choir and the altar. Grankvist believes that there is substantial evidence that the Kapittelhuset building by the Nidaros Cathedral may have housed the Maria hospice, as there are similarities with buildings in France and England from the same era. However, there are no sources that confirm this. What is certain is that there was a hospice by the cathedral in Trondheim, that it was established in the second half of the 12th century, and that it was likely a canon hospice of the old order.

This type of hospice disappeared towards the end of the High Middle Ages and in the Late Middle Ages. This happened either because they were transformed into charitable foundations ("milde stiftelsar") (institutions created by wealthy burghers, especially for older burghers and widows) or because they were moved out of the church area and came to have looser ties to the diocese. However, there were usually some ties to the diocese, and in many places the canons had the right to appoint trustees and priests. In 1270, the archbishop reorganised the canon hospice into an ecclesiastical institution with no annual contribution from the episcopal church, and in this way they became what is called a canon hospice of the younger order.

In 1277, another hospice was completed at Vollene (Ilevollen) in Trondheim: a hospice for the poor. At the same time, the Maria hospice by the cathedral remained. It was likely the case that these two hospices merged into one institution in 1277, and that the old hospice functioned as a pilgrim hospice. The sources indicate that the old hospice had disappeared around 1310, while the hospice at Vollene remained. In the course of the 14th century, this hospice was also called the Maria hospice.

Due to the spread-out settlements and small cities, the hospices were small and not very significant in the Norwegian Middle Ages. Neither were the hospitals of the Middle Ages health institutions in the modern sense: they were simultaneously religious buildings, buildings for the poor, hospitals and places of rest. Our conceptualisation of health presumes a different way of differentiating between the body and soul, and the Christian world view of the Middle Ages was reflected in the design of the hospices as church-like places.
Most hospices were run by bishoprics or by monasteries. The monarchy had joint responsibility for some of them. Hospices that merged during the Middle Ages have been counted as one.

<table>
<thead>
<tr>
<th>NAME</th>
<th>DIOCESE, PLACE</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Mariahospitalet</em> by the Nidaros cathedral, the Hospice at Vollene (Ilevollen)*</td>
<td>Nidaros</td>
</tr>
<tr>
<td>Alle Helgen's Hospice</td>
<td>Bjørgvin</td>
</tr>
<tr>
<td>Katarinahospitalet</td>
<td>Bjørgvin</td>
</tr>
<tr>
<td>St. Jørgen's hospice</td>
<td>Bjørgvin</td>
</tr>
<tr>
<td>Fana hospice</td>
<td>Bjørgvin</td>
</tr>
<tr>
<td>Halsnøy monastery hospice</td>
<td>Bjørgvin (Halsnøy in Sunnhordland)</td>
</tr>
<tr>
<td>St. Laurentii hospice</td>
<td>Oslo</td>
</tr>
<tr>
<td>Hirdhospitalet</td>
<td>Oslo</td>
</tr>
<tr>
<td>Hovin hospice/ St. Jørgens hospital</td>
<td>Oslo</td>
</tr>
<tr>
<td><em>Heilagkross or</em> St. Jørgen's hospice</td>
<td>Hamar</td>
</tr>
<tr>
<td>St. Stefan's hospice</td>
<td>Tunsberg</td>
</tr>
<tr>
<td>St. Laurentii Hospice</td>
<td>Tunsberg</td>
</tr>
<tr>
<td>Verne monastery hospice</td>
<td>Oslo (Rygge)</td>
</tr>
<tr>
<td>St. Antonius monastery hospice</td>
<td>Hamar</td>
</tr>
</tbody>
</table>

*Sources Grankvist 1982 : 12-13.*
The Reformation is the event that separates the Middle Ages from what we call the early modern period (1536-1814) in Northern Europe. In this period, new ways of seeing the world emerged, the state changed character, the clinical picture changed and the state slowly started to redefine its role to also including measures directed towards people’s health.

Society and health
In order to get a view of living conditions and the clinical picture in the period, we can look at both demographic data and ideas about illness, life and death.

DEMOGRAPHICS AND ILLNESS
From a population that in Norway may have been about half a million in the Middle Ages, the figure had dropped to about 150,000 by 1520. During the 16th and 17th centuries it edged upwards, to about 440,000 in the mid-1600s and then doubling to 880,000 in 1801. During the entire period the country was agricultural with few and relatively small towns – it is estimated that 75 per cent of the population still had agriculture as their main source of income in the year 1800.

Though the outbreak of the plague in 1349 is exceptional and the main reason the population was small for a long time, new outbreaks of the plague continued to be the main threat to life and health up until some way into the 1600s. The last wave of the plague in Norway hit Christiania and the surrounding area in 1654.

From the 1700s, we have more precise demographic data, and we therefore know more about the composition of the population. From the start of the 1700s and to about 1850, birth rates were generally high, so that each family had an average of four to five children. Until about 1815 the mortality rate was also high, with significant exceptions in some crisis years when it was even higher. The most significant diseases in the 1700s were dysentery, typhoid fever, typhus and smallpox, and it was these, in combination with starvation, that created the crisis years, while causing high mortality rates in average years too. The infant mortality rate was high during the entire period, and it was only in about 1815 that this turned and the infant mortality rate fell significantly. At the same time, the crisis years with extraordinary high mortality rates disappeared, which in

Typhoid fever, which is also known as “nervous fever”, is caused by the typhoid bacilli. It has a long incubation period. The bacillus is excreted with faeces, and infection occurs through infected food or drink. The main symptom is long-term, high fever and diarrhoea. It is also common to have additional complications. With no treatment, the mortality rate is about ten per cent, though with modern antibiotics it is below one per cent. A vaccine with some effect exists. Today, the illness is rare in Norway but common in developing countries.

Typhus, or spotted fever, is caused by a bacteria, mainly transmitted by lice. The symptoms are a sudden high fever, headache, internal bleeding, rash and, among other things, diarrhoea. It is very rare today, but was widespread in the early modern period in Norway, when it was common during bad years. Untreated, it has a 60 per cent mortality rate. With antibiotics, the mortality rate is ten per cent.

Until the second half of the 19th century, typhoid fever and typhus were often understood as the same disease.

Dysentery
Acute intestinal infection caused by bacteria in the shigella group. The bacteria attack the mucosa of the cecum and rectum, causing wounds to develop. The symptoms are diarrhoea, stomach pain, vomiting and blood in the stool. It usually clears with no treatment, but can be treated with antibiotics. Before antibiotics were introduced in the 20th century, the mortality rate was about five per cent.

Smallpox (variola) is an infectious viral disease caused by a virus in the poxviridae family. The symptoms are high fever, headaches, back pain and often diarrhoea. When the fever lowers after a few days, a rash breaks out over the entire body. The English doctor Edward Jenner developed a vaccine in 1796. It is estimated that between 300 and 500 million people died from smallpox in the 20th century. The last registered outbreak of the illness occurred in Somalia in 1977, and the WHO declared the world smallpox-free in 1979.
combination led to the explosive population growth in the 19th century.

These demographic facts constitute an important part of reality in the early modern period: a high mortality rate and constant high risk of being afflicted by serious illness were important basic conditions. Yet just as important to an understanding of what we are considering here – "health measures" and "health institutions" – it is the world view that set the framework for and structured people's everyday lives and that gave meaning to life and health.

THE REFORMATION, THE STATE AND THE POPULATION

The Reformation was introduced in Denmark-Norway when the Danish Estates General meeting decided to abolish Catholicism in 1536 and make Kristian the Third the head of the church, which was followed by a new church ordinance the following year. At the same time, Norway was made a Dependency ("region") by the so-called confirmation ("handfesting") that led to the dissolution of the Norwegian Council of the Realm. As a consequence, the monasteries were closed and the church property was transferred to the state.

At the political level, from 1537 Norway was strongly integrated into the Danish kingdom, and all central functions came to be located in Copenhagen. In the entire period up to 1814, the state also expanded its role, a development that accelerated after 1660 when absolute monarchy was introduced and the monarchy enhanced its power at the expense of the nobles. The state expanded its apparatus, took on more tasks and the civil servants became a large and increasingly powerful group.

An important aspect of what has been called "the Lutheran state" is the expansion of state tasks, both as a direct consequence of the introduction of Protestantism and later as a consequence of the absolute monarchy. The establishment of Lutheranism as a state religion also entailed a break with earlier religious conceptions. For instance, the break with the dogma about purgatory meant an entirely new view of life and death: in Catholicism, masses could be held for the dead to help them out of purgatory and into paradise. In the Protestant worldview, there is no way station between heaven and hell, and everything depended on whether you believed in God while on Earth. Once you died, the road ahead was determined once and for all. Along with other trends, this shift in the conceptualisation of life and death had wide-ranging consequences. The redefinition of death can be seen as one of the impulses behind the process that culminated in the Enlightenment; what the sociologist Max Weber has called the "disenchantment of the world". The result of this disenchantment was a new focus on earthly matters, the body and what could be observed. Out of this grew new conceptualisations of illness and new conceptualisations of the human body. In the 1700s, the body emerges in a new light, it is dissected, organs are explained based on their functions and are seen as possible to understand and explain based on a science that is more sharply distinguished from

St. Jørgen's hospice, Bergen. The hospice was established in about 1400 and was a leprosy hospice. The current buildings date from the 18th century. When the last two patients died in 1948, the institution was closed.

The religious aspect was central to hospices in the Middle Ages and early modern era, and the hospice ward and the church nave were often the same room. As institutions, they were thus not "health institutions" in the modern sense, but were to care for both the spirit and the body of the sick. The church at St. Jørgen's hospice dates from 1707, but has been renovated since. Today, the buildings house the Leprosy Museum.

Photo: Wilse. The Norwegian Directorate for Cultural Heritage Management.
religion. In this way, the world view in the centuries following the Reformation becomes an important premise for a new type of state attention to illness and the bodies of its inhabitants.20

Another type of change originated in what was at first a Calvinist ideology where one distinguished between the "worthy" and "unworthy" needy. In the 1600s and 1700s, this also gained acceptance in the Lutheran areas, and it is an important concept behind the construction of institutions and the differentiation that took place during these centuries.

The state's financial policy from the beginning of the 1600s and to about 1800 is characterised by mercantilism. This was an economic model that emphasised state planning to enhance state power and wealth, for instance through protectionism and the exploitation of natural resources. Populationism is a school of thought within mercantilism that focused on how a large and healthy population created the basis for the power of the kingdom. In other words, the population was considered a resource. In our context, this school is especially interesting because a natural consequence was that the authorities and scholars of the time started to take an interest in solutions to outbreaks of disease and to enhancing the health of the population.

In combination, the new conceptualisation of the human body, ideas about distinctions between different types of people needing care or to be separated from society, and the view of the population as a resource, have been important backdrops for measures against disease and for the creation of institutions from the Enlightenment onwards.21

THE STATE AND DISEASE
In the 1600s, the public focus on the body and fighting disease first led to various support schemes for doctors who had distinguished themselves as especially heroic during outbreaks of the plague. The precautionary rules when the plague hit in 1348 (regulations from the King about masses, processions and prayer) were also an expression of a type of care for the realm and its subjects, but the measures that started appearing in the 1600s were to a greater extent targeting disease as a separate phenomenon (independent of the soul), and expressed new ideas about the place of the population in the state's development and economy.

In 2003, when the health service celebrated its 400 year anniversary, it did so with a starting point in the fact that Villads Nielsen was granted public funding as a doctor in Bergen in 1603 because he had made a great contribution during the plague that had come to the city. This event should be understood more as a symbol than as the actual start of a public health service. In the anniversary publication written by Ole Georg Moseng, the appointment of Villads was understood as the "conception" of the health service that was "born" just under 200 years later.22 Nevertheless, there were few doctors (and even fewer publicly paid doctors) in Norway until the middle of the 18th century.23 The reason that doctors were granted public funding in the 1600s was specific epidemics, and not part of a more extensive state offensive. Two regulations, from 1619 and 1672, regulated doctors' practices, and the latter was in principle the governing framework for medical practice in Norway until the Health Act of 1860. The 1672 regulations obligated doctors to control the apothecaries, to teach and examine midwives, to treat the poor free of charge and to report to the faculty of medicine in Copenhagen. It thus expresses a willingness to organise doctors into a larger medical-political apparatus. Nevertheless, it was only in the mid-1700s that significantly more doctors were hired. In 1743, the first doctor was appointed as a public servant and given the title provincialmedicus in Kristiansand. The title as a public servant entailed an enhanced status for doctors and may indicate a willingness to create a more fixed apparatus. At the same, there was a concrete challenge – the outbreak of the so-called "rade disease" – that caused the appointment. Subsequent appointments in the 1700s were also responses to epidemics such as the "rade" disease and smallpox. Government appointed doctors became more common in time, and during the second half of the 18th century all amt (administrative divisions) got a "landsfysikus" (doctor) or a surgeon. In 1749, the first midwife trained in Copenhagen came to Norway, and in time formally trained midwives became a more common health profession.

In 1740, a medical council (Collegium Medicum) was created in Denmark-Norway. As a body, this became important in the creation of an early "medical service" in the 1700s, for instance by initiating the so-called "rade" hospitals, which we will discuss later in the presentation.

That the governing authorities took steps to combat smallpox was another important task initiated by the council. In 1810, a smallpox vaccine was introduced by law in Denmark-Norway. Previously, a primitive version of the vaccine had been used on the
initiative of individual doctors and priests. It was only with the development of a new technique in the early 1800s that the vaccine became a greater success.\textsuperscript{24} The success of the smallpox vaccine is related to the new method being more or less risk-free, but must also be seen in the context of the organisation by the governing authorities. In 1801, the Collegium Medicum initiated the appointment of a committee that made a recommendation regarding a vaccination programme, which led to extensive vaccination that same year.

The larger political context – specifically the isolation from Denmark that followed the Napoleonic wars – led to a separate Norwegian \textit{Sundhedscollegium} ("Health Council") being established in 1809. After the liberation from Denmark in 1814, this Council issued a recommendation that explained the need for new institutions, both due to independence and as a consequence of the establishment of a university and medical training in Christiania in 1811.

In sum, we can say that the first small signs of a state that took responsibility for the physical health of the population emerged in the year 1603, that a more national apparatus of doctors paid by the public purse was developing at the end of the 1700s, and that the initiatives that were taken in connection with, for example, the "rade" disease and smallpox vaccine, were signs of a more active state in relation to health and medicine.

The institutions

In 1826, Rikshospitalet was completed in Christiania. The young Norwegian state now had an institution that fulfilled the need for education and research necessary in the training of doctors. Professor of Medicine at the University, Frederik Holst (1791-1871) thought the name of the new institution could be misleading: as "Hospice" ["Hospital"] in our Language does not specifically mean a Hospital ["sykehus"] but also a Care home, or Home for the needy, people affected by dementia, infants and others, the more linguistically correct name for the institution the Ministry's Recommendation relates to, which is for the ill only, would be National Hospital ("Sykehus").\textsuperscript{25} In other words, Holst thought it important to distinguish between hospitals and hospices. Hospitals ("sykehus") were to be institutions that treated the ill, and not care homes, almshouses or old age homes. In Norwegian, "hospice" ("hospital") was a word that covered all of these functions, often in one and the same institution. For Holst, who was one of the pioneers within medicine in Norway and of the first generation of professors at the University, it was important to point out that Rikshospitalet was something new, something different from the old hospices.

As we here look more closely at hospices and care institutions in Norway from the Reformation and to 1814, it is worth noting Holst's words. On the one hand, the words are about his need to assert that Rikshospitalet is something bigger and better than what had gone before, but at the same time he does say something about what a hospice was and what it had been in the previous centuries. With this starting point, we can go back to the new era that the Reformation represented, and look more closely at hospices in the following centuries. We will then take a closer look at the new hospitals from the end of the 1700s, and discuss whether these represented a break with the hospice tradition.

\textbf{Hospices and Foundations}

The Reformation also had consequences for hospices as institutions of the church. Before the Reformation, many church estates had become foundations, which meant that they were independent units governed by the church. After the Reformation, these foundations were transferred from the church and placed under state administration. The religious articles from 1542, which represented a kind of explication of the Reformation, required hospices to have a trustee responsible for the finances, and also required hospice inmates to be accepted according to need (rather than on the basis of gifts and payments).\textsuperscript{26} Furthermore, they presumed that hospices were to be regular hospices but with separate rooms or houses for lepers.

The most immediate consequence of the Reformation was a reduction and dissolution of the old hospice system from the Middle Ages. This dissolution can be traced to the time before the Reformation, when the King had given some hospices as rewards to secular nobles. Nevertheless, it is the Reformation that marks the new era. Only three of the hospices from the Middle Ages continued to exist: \textit{St. Peters hospice} in Stavanger, \textit{Nidaros hospice} (henceforth called "Trondheim's hospice") and \textit{St. Jørgen's hospice} in Bergen. The Oslo and Hamar dioceses were merged and had one joint hospice:
Oslo hospice, which thus assumed the functions of several hospices from the Middle Ages in the area.\textsuperscript{27}

In the period from 1537 to 1814, several types of institutions for the poor, ill and criminal emerged, so that we can talk about a differentiation. For instance, we can see that the distinction being drawn between worthy and unworthy needy leads to institutional distinctions between institutions and hospices for respectable burghers and almshouses for people of lower rank. Though the Church Ordinance of 1537 did not discriminate between different types of people who needed care, such ideas became more prominent in the centuries that followed. The historian Rolf Grankvist thus argues that the growth in the number and types of institutions in the 1600s and 1700s is a reflection of the breakthrough of this idea, and he mentions the new institutions in Trondheim as examples: Almshouse, Orphanage, Madhouse and Workhouse (workhouse for women) that were all additional to the hospices in Trondheim and the newer St. Jørgen’s house (from 1607).\textsuperscript{28}

After 1537, the hospices in Norway were to be regular hospices with wards for lepers. St. Jørgen’s Hospice in Bergen appears nevertheless to have solely functioned as a leprosy hospital for most of the period. The hospice has a history that goes back to about the year 1400. At the time of the Reformation, it was turned into a royal institution and was given the property and income that had belonged to the Selje monastery. The hospice was given its own trustee who was to report to secular authorities, and the mayor among others was to participate in decisions about who were to be admitted (the new statutes for the hospice stipulated that it was the poor ill that were to be admitted).

The leprosy hospices in the early modern era were first and foremost care and warehousing institutions: the few doctors who were found in Norway in the 1500s and 1600s had no strong affiliations with the hospices, while barber surgeons (surgeons trained and organised as tradesmen) were more frequently called to treat wounds, amputations and broken bones. For instance, St. Jørgen’s Hospice did not hire a doctor until 1817, and it was only in the 1830s that an extensive discussion arose about whether leprosy was an illness that could be treated and healed. In the mid-1800s, the illness became a priority for the state, and research institutions were created with the specific aim of solving the leprosy question.

The buildings at the leprosy hospice in Bergen constituted an independent facility at the outskirts of the city, fenced in by stone walls and closed by gates. It was to be located some distance from the city due to the risk of infection, yet close enough that members could walk around and ask for alms. For the same reason, after the Reformation an order was issued to separate lepers from other patients at the general hospices. Today, this is the only completely preserved leprosy hospice in Norway, and the current buildings date from the 1700s.\textsuperscript{29} As a cultural heritage site, it is thus unique in Norway, and it is also one of a few preserved leprosy hospices in Northern Europe.

In the 18th Century, a few more hospices for lepers only were established in Norway. Vallersund hospice in Bjugn (Fosen) was a hospice for people from northern Norway on their way to Bergen, while Reknes hospice near Molde was established in 1713. Trondheim hospice was given a new statute in 1812, which stipulated that it was for patients who were lepers or were "\textit{with some other infectious disease [...] afflicted}". In line with the overarching guidelines, lepers were to be separated from the rest of the patients and have their own house some way away from the main building. Along with Oslo hospice and St. Jørgen in Bergen, it was one of what we can call the three main hospices in the country. These functioned as the main hospices for their dioceses, though patients from the cities had some advantages and there were more of them. In Trondheim, as in Bergen, new institutions were established after the mid-1500s. The first of these was St. Jørgen’s House, which was completed in 1607, and which in time became a nursing home for older burghers.\textsuperscript{30}

Oslo hospice was founded in 1538 on the site of an old Franciscan monastery, and became a hospice for the Oslo diocese. In line with the reorganisation following the Reformation, it was organised as a foundation and placed under the administration of the diocese (the bishop and secular authorities). In the 17th century, the hospice functioned as a poor house and hospital for burghers needing care. In this way, the development of the hospice can be seen in the context of the previously mentioned ranking of the needy that was gaining traction at the time. In addition to the bourgeois background the patients were required to have, the hospice did not want to admit orphans or illegitimate children, and indecent behaviour could lead to expulsion.\textsuperscript{31}

The introduction of charitable foundations ("midle stiftelsar") founded by wealthy burghers
and mainly for "respectable" burghers and widows weakened by old age, is another characteristic of the early modern era. For example, in Bergen there are several such foundations with buildings that are still standing: Strange’s foundation from the 17th century, Zander Kaæe’s foundation and Dankert Krohn’s foundation from the 18th century.32

The ideology that differentiated between different types of needy persons was given expression in Oslo hospice’s statute from 1737, which stipulated that it was to be a hospice for "proper and honourable burghers who have not sought to support themselves with hard labour and who without fault have become poor" and who were also to be "pious and well informed" and the widows of these burghers.33 In the 18th century, there were also two poor houses in Christiania that cared for the poor of a more "common" and unworthy type, and in 1741 a jail for the entire diocese opened in Storgata. The jail was to have a disciplinary role, and it was to give beggars, vagrants and ill-behaved children hard labour that was to strengthen their morals. The creation of a separate lunatic asylum (in connection with the hospice) in 1776 was another expression of the specialisation and differentiation between institutions that took place during this period.34

The history of the hospices from the Reformation and in the following centuries is among other things about how new distinctions were drawn between different groups of needy people – whether they were poor, poor and ill, old burghers or insane. On the one hand, a distinction was drawn between different degrees of whether recipients had justified receiving support, and on the other hand, a functional distinction was starting to be drawn: different institutions were built for different types of relief and needs. Thus by the end of the 18th century, we can glimpse a sharper division between homes for the elderly, hospices, institutions for the insane (so-called "dollhus") and new hospitals. Though these institutions were spreading, it is important to emphasise that nursing and care predominantly took place in the home. There was no right to be admitted to a hospice, and there were only a limited number of people who became hospice inmates or were admitted to any of the other institutions.

HOSPICE ARCHITECTURE
Is it possible to identify a distinct hospice architecture? In the previous chapter, we saw that the hospices of the Middle Ages were often designed as churches, or were parts of churches. The hospices in the early modern era were also affiliated with churches, but in time a differentiation was made between the church and the hospice. For example, Oslo hospice was built on the remains of the old Franciscan monastery’s church. This probably means that this was rebuilt as the hospice’s main building after the Reformation. From 1701, we know that the building held a church and a hospice room with 29 beds and a fireplace and stove on the ground floor. In other words, the integration of the church and the hospice in one building shows the continuity with the hospices of the Middle Ages, but in the 1730s a new hospice church and a new hospice building appeared. This pattern – that the church is part of the hospice complex, but that there is a functional division between hospice functions and church functions in different buildings – is probably typical of the developments in this period.35

The structure with an open room for accommodation, the preparation of food, etc., and small rooms (cells) along the walls with beds for one or two of the hospice inmates, is common in many hospices in this period, both in Norway and in the rest of Europe. Both Strange’s foundation and St. Jørgen’s hospice have a version of this solution, where there is also a first floor with access by a gallery. Zander Kaæe’s foundation and Dankert Krohn’s foundation, which are from the second half of the 18th century,
represent a different floor plan: here, there are hallways with rooms on both sides and a living room in a separate wing.36

MADHOUSES AND LUNATIC ASYLUMS
Insanity started to take the form of a social category in the early modern era. Previously, different types of deviant or asocial behaviour had been sorted differently. Different types of actions that resulted in destruction and disorder were often treated in same way based on the external result of the actions. The category "furious" was used for people with unruly temperaments, and for these there were arrangements that were often called "madhouses" ("dårekister"), often simple cells placed in the basement of public buildings. Such a cell in the basement of the town hall in Hamar is mentioned as early as in the Hamar chronicle from the middle of the 16th century.37

The lunatic asylum ("dollhus") (from the German toll = insane) can be understood as a new phenomenon from the 18th century, and in the second half of the century such institutions were created in the three largest cities in the country. A decree from 1736 imposed a requirement that one or more rooms in the main hospices had to be dedicated to the unruly poor, but this was not followed up on at first.

The construction of facilities for the insane only started some decades later. The first of these buildings appeared in Bergen in 1762, where it was built next to the new hospital at Engen. The building had four rooms, but this doubled after an addition was built in 1778. In line with Enlightenment ideals, the mayor of Bergen, Hilbrandt Meyer, saw the new lunatic asylum as an improvement over the old madhouse:

The rooms that were previously prepared for these Sufferers, were under the Town Hall, and in these the madhouse, but the rooms were in more than one way their Difficulty; In the Winter, they were exposed to excessively bitter Cold, and at other Times their Health was Impaired, partly due to Damp and partly for other reasons.38

The Royal Decree of 1776 stipulated that Oslo hospice was to build a separate building as a lunatic asylum, and this was completed two years later. In Trondheim too, the new lunatic asylum that opened in 1779 became a ward at the hospice.

The institution we use the umbrella-term "lunatic asylum" for (several terms were used interchangeably at the time), differed from the older madhouse in that several people were gathered under the same roof, and that they were often built as separate buildings for this specific purpose. As institutions, they can be traced back to the 17th century in other countries (including Denmark), and they represent a common European tendency where insanity moved from being an issue for the law to being an issue for hospices and the system of care for the poor. Nevertheless, they are not hospitals: it is only in the mid-19th century that the psychiatric hospitals (asylums) appear.

At about the same time that lunatic asylums emerge in history, new military and civic hospitals are built in the cities, we get so-called "rade" hospitals in a number of places, and in Copenhagen a hospital is established that has teaching and research as important objectives.

HOSPITALS
The institutions that were created in Norway in the early 19th centuries, the Fødselsstiftelsen (maternity institution) and Rikshospitalet, have precursors in Denmark-Norway in the 1700s. The first maternity institution in Copenhagen was founded in the mid-18th century, and in 1787 the Konglige Fødselsstiftelse with a midwifery school was founded.39 These
were important steps in the professionalisation of the midwifery profession and in the institutionalisation of midwifery and medical training. The construction of the Royal Frederiks Hospital in Denmark in 1757, with as many as 300 beds, was included in the plan to enhance clinical teaching. The statutes for the hospice stated that it should be

a regular Aid for the Ill, who are unable in their poor and suffering Condition to Help themselves, and by the gracious aid of God and the help of the Doctor as well as good and appropriate Care be helped to Health again, so that they again can earn their Living. This is a clear expression of an understanding that the state had a responsibility for the ill. At the same time, the teaching aspect was emphasised. The hospice in Copenhagen did not have a parallel in Norway until Rikshospitalet was completed in 1826. There were no Norwegian hospitals that functioned as combined teaching, research and treatment institutions until then. However, in the decades around the year 1800, new types of institutions were built: military hospitals, so-called "rade" hospitals and civic hospitals (or "burgher").

The creation of smaller hospitals (or infirmaries) in the military came as a result of decree from 1780 that stipulated that there had to be two sick beds for each company. In the late 1700s, a garrison hospital had been established in Rådhusgata 19 in Christiania. During large corps gatherings, the ill were also placed in the brick barracks that still stand at Festningsplassen and under Jomfrutårnet at Akershus Fortress. The need for hospitals in connection with the larger military garrisons during peace time was related to fact that disease spread easily when so many people were gathered in one place, and in Christiania a larger building was constructed in 1806-1807 that was named Christiania Military Hospital. This was located in what has subsequently been called the Empire Quarter at Hammersborg, and was later rebuilt and used as Rikshospitalet's first building in 1826. After this, the military was given the use of 50 beds at Rikshospitalet, until a new military hospital was completed in 1864.

Fredriksvern Fortress was located in Stavern, and from 1750 this was the lay-up harbour, shipyard and main station for the Danish-Norwegian navy in Norway. In connection with this, "The Combined hospital" was built for the army and navy in 1811-1812. With two floors and 23 rooms, this was in its time the country's largest hospital. In other words, both medical practice and the construction of institutions had a chance to develop in the military, and we can to some extent say that the first real hospitals in the country were military hospitals (Fredriksvern and the Garrison Hospital).

Civic hospitals also emerged in the 1700s, and the most important of these were the so-called "rade" hospitals. The "rade disease" category of illness does not exist today. In current medical language, most incidents would be characterised as syphilis, but a number of people with versions of leprosy and scurvy were likely also given the diagnosis. In 1770, the medical council had characterised it as a combination of scurvy and syphilis caused by an imbalance in the bodily fluids: "venereal scurvy with body fluids in a bad admixture". In 1822, there was a total of 16 hospitals in the category for "veneral disease, rade disease and other malignant skin diseases". In the course of the 1800s, "rade" disease gradually disappeared as a category of illness in light of new medical classification systems.

The endowment hospital in Christiania, which was established in 1755, focused especially on people with venereal diseases, but the term "rade disease" was not used. In contrast, several of the other hospitals from this period were founded as a direct consequence of the "rade" hospital policies of the authorities. The "rade" hospital in Stavanger from 1773 was also the result of an initiative taken by the medical faculty in Copenhagen. The institution had beds for 10-15 patients. The "landsfysikus" (doctor) in Stavanger and region was also the Senior Consultant here. A "rade" hospital was decided built in Bratsberg amt in 1774, also on the initiative of Copenhagen. This hospital was located outside of Skien (in the "suburb" of Porsgrunn) and the "landsfysikus" (doctor) was given responsibility for it. In 1776, a "rade" hospital was also built in Flekkefjord, though in this case subsequent to the provincial surgeon and local authorities putting pressure on the central authorities. In Mandal in 1777, the amt surgeon prepared rooms for "rade" sufferers in his own home and had his expenses covered by the state. Several hospitals in the category for people with venereal diseases, skin diseases and "rade" disease were created at the end of the 18th century and the beginning of the 19th century. For example, Smålenene amt's hospital opened in Fredrikstad in 1795.

Combating "rade" disease was a priority for the authorities, and in addition to the use of special buildings, doctors were hired. The purpose of these
measures and institutions was treatment – the patients were to be discharged and be healed. Furthermore, the doctors had a strong connection to the "rade" houses. Thus, they broke with the previous hospice tradition in several ways.

In the 18th century, several civic hospitals were created independently of the "rade" hospitals. In addition to the endowment hospital, in 1742 Christiania also gained a separate hospital that was part of the state service for the poor ("fattigvesenet"). This institution cannot be said to have broken significantly with the hospice tradition. Christiania civic hospital from 1808 replaced this hospital, and in 1826 the buildings were taken over by Rikshospitalet, which used it as a hospital for people with venereal diseases.47

_Trondhjem’s Civic Hospital’s_ building in the Empire style and dating from 1805 still stands today, but the institution has a history going further back. In about 1700, the hospice in Trondheim and Vallersund hospice at Fosen were the only two institutions for the infectious ill north of Dovre. As a measure against "rade" disease, several institutions in Trondheim in the 1700s used separate rooms that were especially for patients afflicted by this disease. In 1791, the civic infirmary at the hospice was separated from the institution and became an independent institution named _Trondhjem’s Civic Hospital_, popularly known as the Poor hospital.48 This was first located in the local military hospital, and in 1805 it was given its own building at Kalvskinnet. The building was sufficiently large that it could receive Søndre and Nordre Trondhjems Amt’s hospitals as tenants. In 1817, the city took over the institution, which until then had mainly been funded by Thomas Angell’s foundation, and a special hospital tax was introduced to fund the operation of the hospital.49

The hospital in _Bergen_ (Bergen Civile Sygehus) acquired its first premises in 1754, and in 1792 it moved into a new building. In 1830, Christian Wisbech wrote that the building at that time had two floors. The first floor had eight sick rooms, while the ground floor was the residence of the "Inspector and the Larderer". In addition, there was a room on the ground floor that was used for the insane. In 1830, there were seven patients in each room, giving a total of 56 in the entire hospital. Wisbech also tells us that behind the hospital there was "a rather large meadow, which was covered in Linden trees and used by the Convalescents".50 The hospital foundation’s board was organised as a committee under the Diocese Endowment Administration ("Stiftsdirektsjonen"), and consisted of the Mayor, the Diocesan Dean, two members of the city council ("de eligerede Mænd") and two members of the poverty commission ("fattigkommissjonen").

Other city hospitals and amt hospitals also appeared in this period. For example, _Nordland amt_ got its hospital in Bodø in 1794; a "hospital for people with all diseases". It is only some time into the 1800s that there are good overviews of the number of patients admitted to the hospitals in the entire country, so we do not have a complete overview of the hospitals at the turn of the century. Nevertheless, there is a clear tendency towards more institutions that treat the ill being built, both buildings specifically for those afflicted by "rade" disease and general amt and city hospitals. The thing that distinguishes these institutions from the old hospices and endowment institutions for the elderly and those in

The "rade" hospital in Flekkefjord was established in 1776, but the building in the picture was from 1810. Despite protests, it was demolished in 1992. Photo: Avisen Agder.
need of care, is perhaps first and foremost the goal of healing people, which was also shown in practise as patients were discharged, in part because they were well again. In 1794, the new ideas about treatment also lead to a new statute for the leprosy hospice Reknes hospice near Molde. This statute emphasised that it was to be a "Healing Institution".\textsuperscript{51}

However, there are also aspects of the new institutions that mean that it would be premature to proclaim the birth of the "modern hospital" in Norway at the end of the 18th century. In 1830, Christian Wisbech wrote that Bergen Civile Sygehus prior to 1825 was "to be considered a home for Invalids, in which the old, worn out Poor and incurably Ill are admitted".\textsuperscript{52} The hospitals around the year 1800 obviously had many characteristics that are more reminiscent of the old hospices than the hospitals from the second half of the 19th century. Wisbech’s statement emphasises precisely that the break with the hospices and the care endowments from the centuries prior is not a definite one.

The differentiation that takes place in the 18th century is nevertheless important as a backdrop to the development of the hospital in the following centuries. Insanity is distinguished as a separate phenomenon and lunacy asylums are built, while what is starting to be called a "hospital" emerges as something different than the hospices. The new hospitals aim to heal people from physical diseases, and thus presume a new focus where physical disease is seen as a separate object differentiated from other phenomena: from the mid-18th century, somatic medicine is thus distinguished as an independent discipline, while at the same time the insane asylums, hospices and hospitals are separated.\textsuperscript{53} Though the hospitals of the 18th century can look very much like the old hospices, they represented a willingness to rethink and reorganise treatment in a new way.

**APOTHECARY**

The origins of the pharmaceutical profession can be found in Greek Antiquity, though at the time it was not developed as a separate profession. In Norway, the first Privileges to run professional apothecaries were granted in the late 1500s. These apothecaries were in Bergen, where the first doctors in the country were also located. From 1815-1850, 22 new apothecary Privileges were granted, resulting in apothecaries being established in most cities in Norway before 1850. In Denmark-Norway, the medical statutes of 1619 and 1672 regulated the apothecary profession. It was only in 1909 that a new apothecary act was introduced. Illustration: Interiors from the old apothecary at Ullevål hospital. Though today the premises are used as a meeting room, the interior is preserved as a memory of a type of apothecary that is now largely history.

Photo: Leif Anker, NDEA.
Society and health

In the course of the 19th century, technological, demographic and ideological changes occurred that transformed the entire society. In this chapter, we will look at these general trends and at the developments in the health service especially. We begin by looking at the population explosion, moving patterns and changes in birth and death rates.

DEMOGRAPHY, SOCIAL DIVISIONS

In 1801, the population of Norway was about 884,000; in about 1900 it had reached 2.25 million. At the same time, people were moving to cities and towns, so that the society was slowly becoming urbanised. The main cause of the explosive growth was a dramatic decline in mortality rates, especially among infants. The number of births remained stable, and the result was naturally an increased population. There were many reasons for the decline in the mortality rate: the smallpox vaccine was becoming widespread, and diets and housing were improving.

Illnesses and epidemics continued to ravage Norway: cholera was feared from about 1830, leprosy

CHOLERA is an acute and infectious intestinal infection caused by the bacterium Vibrio cholerae. Among other things, it causes vomiting and diarrhoea. Fluid loss and a distorted salt balance can cause, inter alia, kidney failure and even death. There is a vaccine, but it does not give complete protection. The last cholera epidemic in Norway occurred in 1873.

DIPHTHERIA is an acute infectious disease caused by the diphtheria bacteria, which causes coughing, fever and a (grey) white coating of the throat, among other things. The illness often starts in the throat. It often spreads to the larynx, which can lead to breathing difficulties (croup) and choking, among other things. It can also be dangerous due to poisons that the bacilli produce in the body during the illness, and that affect the heart and nervous system in particular. Diphtheria can be difficult to diagnose, but is rare in Norway today as children are vaccinated. It remains common in developing countries.
was a reality though the number of lepers declined, and especially after 1850, tuberculosis developed into a significant health problem. Leprosy and tuberculosis in particular were illnesses that led to the building of institutions.

The relationship between people and groups is also part of demography. In the traditional estate-based society, relationships of loyalty and the sense of belonging between superiors and subordinates on the farm or in the workplace were like the relationship between members of a family. This system was about to dissolve in the 19th century. Society was about to move from being a rank-based society to a class society. This created a basis for new ideas regarding the state taking on tasks related to people’s welfare – tasks that had previously been taken care of by social networks. However, it must be emphasised that care for the ill was a responsibility of the family and local community, and that the institutions continued to play a marginal role compared to these. The new aspect was that they became more significant and that there were more of them, both in numbers and in types.

TECHNOLOGY AND KNOWLEDGE
Technology and science underwent great processes of change. Communication and infrastructure changed dramatically, and the industrial revolution entailed one of the most important changes in history.

The industrial revolution was closely connected with new knowledge in science and engineering. New ways of understanding the world and new ways of gaining knowledge created a transformation in world views and technology. Scientific thought and religious thought as different spheres had become a reality in the 18th century, and in the 19th century an even sharper line was drawn between religion and science. Darwin’s theories of evolution represented a watershed, and in time they were to be very influential in the development of the natural sciences, and thus also medicine. The concept of somatic disease that emerged in the 18th century was consolidated in the 19th century. Supported by science, illness and health were seen as a separate field both as a concept and as an area of policy and welfare measures.

In the early 19th century, the ancient theories of the four bodily fluids and the so-called miasma theory were still firmly held within medicine. The miasma theory was based on the idea that illness was caused by poor air quality and emissions from the ground. The theory stood as the dominant understanding of the causes of illness until the mid-19th century, and was only given the death knell when modern bacteriology broke through in the 1880s.

Bacteriology is the field of study that deals with microorganisms. From the mid-19th century, medicine started to focus more on 'living infectious agents', but the crucial breakthrough for bacteriology was Robert Koch’s discovery of tubercle bacillus in 1882. A broader breakthrough for the recognition that bacteria could cause disease quickly followed, and in the following years the organisms that caused leprosy, cholera, diphtheria and typhoid were discovered. The discoveries did not immediately result in a revolution of the treatment of these diseases, but it became possible to better diagnose and prevent them. Another important change was the introduction of antiseptics and aseptic techniques. The English surgeon Joseph Lister was inspired by Louis Pasteur’s proof that putrefaction was caused by microorganisms spread by air, and in 1867 he started using a method using carbolic acid to stop infections of wounds. This is an antiseptic method, which means that micro-organisms are killed. Aseptic methods, in contrast, meant preventing microbes from at all entering the wound, including during operations. These methods were presented in Norway as early as in the 1870s, but only had a breakthrough after 1880:

Bergen doctor Gerhard Armauer Hansen (1841-1912) at the microscope. In 1873, he showed that leprosy might be caused by microorganisms, and thus weakened the idea that leprosy was hereditary.

for example, Rikshospitalet noted that it changed its routines in 1881.54

The understanding of the micro-organisms revolutionised medicine and hospital treatments. The traditionally dubious reputation of hospitals was related to the stigmatisation of the ill at the hospices, which had traditions back to the Middle Ages and the segregation of lepers. At the same time, it was a fact that infections often spread in the hospitals, and certainly they could not show uniformly positive results with regard to treatments. From the end of the 1800s, this was about to change, and the introduction of other hygienic standards was an important reason for this change.

**WELFARE**

The population increase, technology and knowledge production created new basic conditions within which to provide health services. The political and cultural development meant that health and welfare in the 19th century started being seen as societal responsibilities.

The reforms in the 19th century meant that the rank-based society gradually declined. Voting rights expanded and municipal self-governance was introduced in 1837, giving new frameworks for subsequent measures such as the introduction of municipal health commissions in 1860. Along with the abolishment of the privileges of the rank-based society, the processes that gave increased popular participation in politics led to the dissolution of old structures, and new ties and communities with shared interests were formed. Thus, one way to understand the demand that society should take greater responsibility for welfare and health is as an effect of the fact that the mechanisms that had previously surrounded people and ensured social security were disappearing.

The historian Anne-Lise Seip believes that the state’s social structures from the early 1700s to the beginning of the 1900s can be divided into three phases: first a regulatory and order-focused state (with mercantilism as the economic model), then (from the first half of the 1800s) a laissez faire state (liberal), and then finally, from about 1870, a social assistance state. While the liberal state saw the responsibility for welfare and health as a private one, the social assistance state acknowledged that public authorities had responsibilities in many areas. In contrast to the later welfare state, the social assistance state was nevertheless based on welfare services generally being limited to low-income groups, and the state often shared responsibility with private and non-profit actors. According to Seip, this division is one of the characteristics of the social assistance state as it emerged towards the end of the 1800s and until some way into the period between the wars.

A differentiation and splitting of functions also took place, which led to a division into several types of institutions and a finer tuning of different groups in need of care. For example, a division emerged between the “retarded” (“åndssvake”) and psychiatric patients in the 19th century: these were groups that had previously been largely placed in the same rubric as "mad".

**HEALTH LEGISLATION IN THE 1800S**

Several laws, especially from the mid-1800s, helped regulate and coordinate health measures. These are the key acts:

**The act relating to the insane (“sinnsjukelova”) (1848)** resulted in the insane being separated out as a distinct group; they were no longer to be part of services for the poor. Asylums (insane asylums) could be created following a Royal Resolution, and it was stipulated that the institutions were to be separate from other institutions. The genders were to be segregated, and the patients were to be divided according to their afflictions. Nevertheless, the existing lunatic asylums were given authorisation as insane asylums. The starting point for the act was that those who had previously been considered “lunatic” were ill and could be treated. Doctors were therefore given the overarching responsibility, and each institution was to have a doctor as its director. The law remained nearly unchanged until the Mental health act came in 1961.

**Health Act (“Sunnhetslova”, 1860):** Full name: Act regarding Health Commissions and regarding Precautions in the Event of Epidemics and Infectious Diseases (“Lov om Sundhedscommissioner og om Foranstaltninger i Anledning af epidemiske og smitsomme Sygdomme”). The core of the act was the creation of health commissions (later called health councils) with doctors in prominent positions in all municipalities. The main goal of the commissions was to prevent diseases by passing regulations against epidemics and infectious diseases. The act has been called the "constitution of the health service".

**The leprosy acts (1877 and 1885)** were influenced by Armauer Hansen’s discovery of the leprosy bacilli in 1873 and the recognition that the illness could be infectious. Among other things, the act prohibited lepers from going from farm to farm, as this could spread the disease. After the act was amended in 1885, it became possible to commit patients who were not quarantined in separate rooms in their homes.
Poverty legislation had largely also been "health legislation", but now these were distinguished as separate fields. New laws were passed that focused especially on health, and that helped create a sharper division between care for the poor and care for the sick. Seip believes that it is in the health field that we see that universality, the idea that public welfare services must apply to everyone, is clearest this early. Nevertheless, hospitals still have the status of being institutions for lower-class people; people who were better off were generally cared for in their homes. However, although the state service for the poor paid for most of the patients at many hospitals up to sometime in the 1900s, the status of the institutions was on its way up.

A number of laws that regulated social issues were passed, including new poor laws (1845 and 1863) and various laws that regulated health issues. Nevertheless, there were debates about the extent to which society should intervene and regulate social issues: liberals argued that society should be cautious about intervening in these fields. Both the poor laws and the health act are characterised by their being compromises in this debate, which we will take a closer look at when we now move from general social policy to the health policies and medical service specifically.

HEALTH POLICIES

In its recommendation from 1814, the Norwegian Sundhedscollegium ("health council") wrote:

> How important it is for a State to have a well-appointed Medical service, how influential this is for the welfare of the Citizens and for the reproduction of the Population, should hardly need to be first proved.56

The health council tied the concept of a "medical service" to the establishment of the faculty of medicine, the Fødselsstiftelsen and Rikshospitalet: these institutions were expected to play key roles in the creation of a public health service.

However, these institutions were not at the top of a hierarchy, and were not subject to a comprehensive and unified administrative apparatus. In those terms, it was only the precursor of a medical service that existed in Norway on the opening of Rikshospitalet in 1826, and there was no cohesive and centrally organised hospital system. It was only in 1860 that Norway got laws that regulated such a medical service, or health service as it came to be known.

After the Norwegian health council was discontinued in 1815, the medical service was first located in the Ministry of the Police, later (from 1819) in the Ministry of Church Affairs, and then in the Ministry of the Interior. The bureaucracy consisted mainly of lawyers; when the doctor Christian Thorvald Kierulf was given the position as director of the medical office in the Ministry of the Interior in 1858, he was the first person with medical training in a leading position in the health service. Both the army and the navy had their own health organisation independent of the civilian organisation. For instance, the quarantine system was under the Naval Ministry.

This organisation of the health service was subject to debate. In 1833, Professor Frederik Holst argued for the creation of a health council and a coordinated medical service under a single ministry with doctors in leading positions. This would lead to a "Central body from which Everything goes out and to which Everything returns". Others argued that the local apparatus was the most important and should be built first, for instance by increasing the number of doctors. It looks like the strengthening of the central apparatus (at least as Holst viewed it) took time while the local health systems grew.

During the 19th century, the health professions were strengthened. The number of doctors and midwives increased dramatically. Around 1810, there were only about 50 midwives in Norway, but by 1850 there were as many as 500 midwife districts. This meant that births started to be incorporated in a medical apparatus – they were medicalised.

In 1818 there were 10,000 people per doctor, and in 1860 there were 5,000. As a profession, doctors remained weak compared to other public servants in the mid-1800s, but in addition to there being more doctors, there were also other signs of the profession becoming consolidated: local doctors' associations were formed, doctors' journals were founded, and the national Norwegian Medical Association was created in 1886. Christian Thorvald Kierulf was the first doctor with a prominent role in the health bureaucracy, and he played a central role both as the director of the Medical office and in the preparation of the Health Act of 1860.

A parallel development was taking place in which understandings of the state's responsibility for health were changing. The historian Aina Schiøtz believes that the cholera epidemics that ravaged the country in the 1830s, 1840s and 1850s – and the measures they led to – played a central role in the creation of...
a modern health system. Thus, she sees cholera as an “eye opener”. However, cholera is not the only explanation for the reforms in the mid-19th century. They are part of a general innovation of social work, welfare and the state's role in the responsibility for public health.

Before the Health Act of 1860, a quarantine act and an act relating to the insane were also adopted. The act relating to the insane of 1848 was based on an international movement that in the name of philanthropy took issue with the old type of care for the “insane” (in the lunatic asylums). Nevertheless, the mover behind the act was to a great extent Herman Wedel Major (1814-54), who is today considered the founder of Norwegian psychiatry. The act used the terms “asylum” and “healing institution”, and stipulated that these types of institutions were to be run by doctors, with the asylum director at the top. The act relating to the insane led to the lunacy asylums (“dollhus”) changing name to insane asylums (“asyl”), as well as to the construction of a large new state-owned asylum, Gaustad (1855).

The act relating to the insane led to the lunacy asylums (“dollhus”) changing name to insane asylums (“asyl”), as well as to the construction of a large new state-owned asylum, Gaustad (1855). The quarantine legislation was a response to the cholera epidemics that affected the country after 1830. As early as in 1831, a Central Commission for cholera was created, and provisional local health commissions were to monitor, inform and ensure that the precautionary rules were complied with. The quarantine legislation was an enactment of existing practices, but it shows a willingness to legislate with regard to health.

An overarching statute for medical issues was discussed soon after 1814, but a general act was only introduced in 1860. It’s full name was Act regarding Health Commissions and regarding Precautions in the Event of Epidemics and Infectious Diseases (“Lov om Sundhedscommissioner og om Foranstaltninger i Anledning af epidemiske og smitsomme Sygdomme”). The work on the act was inspired by provisional cholera commissions that were formed in the 1830s, as well as similar local leprosy commissions. The law commission saw a need for corresponding permanent health commissions because “lethal Epidemics as well as ongoing prevalent Diseases can best be fought through preventative Precautionary rules and by combating the causes of the Diseases”. The commission admitted that laws in this field could lead to restrictions both in regard to the principle of private property and in regard to personal liberty, but thought that this could best be prevented by granting the authority to the municipalities, which could adapt decisions to local conditions. However, in order that focus should be drawn to this locally, it was necessary to create separate bodies in the form of permanent health commissions (“Sundhedscommissioner”). The health commissions were to consist of district doctors (or town doctors) as well as representatives of the local council. In the cities, city engineers were also to sit on the commissions. Emphasis was placed on the importance of having doctors represented, and that they were to have a central position and be listened to especially.

In other words, the Health Act provided a framework for local health services in which the health commissions (later called health councils) were foundational. In this way, local initiative was made paramount, with the Health Act a framework legislation that enabled the creation of local regulations. However, an extensive reformation of the central administration did not take place.

For the general health service, the principle applied that responsibility rested with local authorities represented by the health commissions and the municipalities. With regard to the somatic hospitals, both amt (later counties) and municipalities initiated, owned and funded the operation of these, though hospital construction was not covered by the Health Act. This principle was in line with liberal values about the state being cautious of intervening in too many fields. In contrast, the system of care for the insane was governed according to clear rules, and several state institutions were created. The same was true for care for lepers. This was likely related to these being groups that at the outset had been separated from "ordinary" people, and that more invasive regulations thus were possible even within a liberal framework.

In the 1800s, interest was emerging in leprosy as an illness that could be prevented and treated, which entailed a break with the sense of fate that had surrounded this affliction through many centuries. Measures were started already in the 1840s, and several institutions were created. Furthermore, general measures commenced during the 1850s, such as the creation of a dedicated chief physician for leprosy, the creation of a central leprosy register and the creation of local health commissions in districts where leprosy was common. In the aftermath of the Bergen doctor Gerhard Armauer Hansen’s discovery of leprosy bacteria in 1873, new laws in the field were enacted that presumed that it was an infectious disease. The first was a leprosy act adopted in 1877.
and amended in 1885 to include provisions that allowed for involuntary committal. The policies around leprosy and insanity show a greater willingness to create legislation for institutionalisation than was the case for other somatic diseases. Tuberculosis was one of the greatest threats to health at the end of the 19th century, and here too we see how legislation permitting institutionalisation became the solution. The tuberculosis legislation of 1900 was a “pioneering work” internationally, and formed a model for legislation in other countries. Although tuberculosis peaked as a fatal disease at the turn of the century, it was in the first decades of the 1900s that the construction of sanatoriums and tuberculosis homes took off.

Thus a new apparatus was ready in Norway at the end of the 19th century: a health service that covered more than the medical services in the first half of the century. At the same time as new hospitals emerged, hospitals were being reorganised.

The institutions
The 1800s is the period when the hospital as an institution started getting a higher status, despite persistent ties to services for the poor. After 1814, it was seen as a national task to create a central hospital: Rikshospitalet. Apart from this, in the 1800s the somatic hospitals were a task for local and regional authorities.

1814 AND RIKSHOSPITALET
In 1814, the Norwegian health council wrote:

After Independence from Denmark, Norway now lacks a Hospital, to which any Citizen can have Access with the Knowledge that in uncommon or significant incidents of Illness he can find the Help that he cannot at all or can only with significant Difficulty or Cost have in his House, where the young Doctors under the Supervision of skilled and experienced Men can be given the Opportunity to apply the Theory that they have gathered at the University, and acquire such practical Training that they with Confidence can perform their important Calling.

The conclusion was that a general, central hospital with 150 beds and a maternity institution with 30 beds were needed. The council was created in 1809 as a result of the crisis situation related to the isolation during the Napoleonic wars. There were two reasons for the creation of these institutions: they were to both be a guarantee that professional treatments were available to those who needed them, and serve as places for instruction and practice for student midwives and doctors.

The first step in the creation of Rikshospitalet was the conversion of the military hospice at Hammersborg (where the current government quarter is), which started to be used for its new purpose in 1826. At the same time, the old Christiania Civile Sygehus started to be used as Rikshospitalet’s department for sexually transmitted diseases and "rade" disease. Fødselsstiftelsen was created as an institution in 1818, but it only moved into a building specially constructed for the purpose in 1837. In 1842, the hospice got a new main building and two years later the entire operation was gathered at Hammersborg. This facility was soon too small, and after several years of discussions, a new facility opened in Pilestredet in 1883. The oldest part of Rikshospitalet (Militærhospitalet) was torn down in 1962, but was rebuilt at Grev Wedels plass in 1984.

THE SOMATIC HOSPITALS: "LOCALISM"
Rikshospitalet has a special position among the general somatic hospitals, both in that it is state-owned and in that a central part of its operations were related to research and the teaching of doctors. Hospital development in the 1800s can otherwise be characterised by the term welfare localism—which the historian Tore Grønlie uses to characterises a development where the hospitals were founded by local initiatives. The term covers both private hospitals, municipal hospitals and hospitals owned by amt (counties) and non-profit organisations. This stands in contrast to, among other things, the psychiatric field, where the state was involved both as the owner of several institutions and as an organiser through guidelines for the creation of amt asylums. Here, we will use localism to describe hospital developments throughout the 1800s, though Grønlie originally used the term to describe developments from 1890 and into the 1900s.

In medical statistics from the 1830s, the following three classifications of institutions were used: "Ordinary hospitals", "Particularly for venereal diseases, 'rade' disease and other malignant skin conditions" and "Insane asylums". In 1834, there were ten of the first type, 18 of the second and three insane asylums. The division is influenced by many of the hospitals having been established as a result
of the "rade" disease from the end of the 18th century (see ch. 3). This category disappeared from statistics in the 1840s, but the same hospitals continued to exist. This relates to the institutions simply being defined differently, and it was undoubtedly also related to "rade" disease as a category being on the verge of disappearing.

In 1847, the category for venereal hospitals was no longer found in the statistics, which related to the decline of "rade" disease as a category of illness and a new organisation of the hospitals. Many of the venereal hospitals had functioned more as nursing homes, but several transitioned to become general and modernised amt hospitals. Table 1 shows the number of hospitals between 1847 and 1899.

In the last decades of the century, there are no great changes in the number of hospitals in the medical statistics (the greatest change is that the number of military hospitals declines). From the table we can see that amt hospitals and the municipal hospitals (mainly in cities) were the largest category of hospitals. However, several hospitals were co-located, so that a hospital listed as an amt hospital in the statistics in practice often meant that the amt paid to have patients admitted to a city hospital. Rikshospitalet is the state hospital, and later on state leprosy hospitals also emerge (see separate subheading).

In 1855, a hospital belonging to Helgeland vogt is listed, and in 1879 the Diakonissehuset in Oslo has been included (it opened in 1868). We must also assume that hospitals and hospices existed that are not part of the reports for the medical system. The main impression is that municipalities and amts are the chief builders of hospitals at the end of the 19th century. At the beginning of the 20th century, the picture is supplemented by more hospitals being established by non-profit organisations and other non-governmental organisations, but amts and municipalities are still the driving forces with regard to somatic hospitals. The number of patient days tells us something about how the hospitals increased capacity.

In order to get a better view of hospital operations in the 19th century, we can for example take a closer look at Trondheim's Civic Hospital. In 1817, the city had taken over the institution from the foundation that had previously funded the operation of the hospital, and from then on the operation was funded by a separate hospital tax. The hospital did not have its own doctor until the middle of the century; public doctors took turns visiting. Administratively, the hospital was under "Fattigkassa" (service for the poor) until the 1840s, when it moved to being what the historian Svein Carstens calls "a municipally owned company" in which patients had to pay a certain amount to be admitted (often paid by the service for the poor). It was only in 1845 that the hospital had its first Chief Physician, as well as a Registrar. During some periods, both Søndre and Nordre Trondhjems Amt’s (the Trøndelag counties) hospitals consisted of rented rooms in the city hospital.

<table>
<thead>
<tr>
<th>Amt Municipal</th>
<th>Fisheries hospitals</th>
<th>Other</th>
<th>Military</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1855</td>
<td>11</td>
<td>7</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>1865</td>
<td>18</td>
<td>12</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>1879</td>
<td>18</td>
<td>14</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

Special public measures for those involved in the fishing industry have been in place since the 1790s. In this photo from the 1960s, a fisherman receives care on board the hospice ship Elieser. Photo: Photographer Kristian Kanstad. Lofoten Museum’s photography collection.
characteristics of hospital developments in the 19th century. It changed from being part of the state service for the poor to becoming an independent administrative unit, it changed from being staffed by carers to having permanent doctors and the changes in the administration of the hospital emerged from local initiatives rather than a central policy. It is thus an example of welfare localism.

At the beginning of the 19th century, hospitals were characterised by patients largely being admitted by the state service for the poor: they were not seen as exclusive places for the practice of medicine by either doctors or patients (wealthier patients received doctors in their homes). For example, Jens Andreas Holmboe, who from 1863 was the Chief Physician at Bergen municipal hospital, characterised the hospital in the city as “completely unsuitable and nearly unusable and gave such a sad, poor and mean Impression that the entire Facility had a shabby, nearly horrid Appearance.” This changed in the period to the turn of the century: hospitals were given a very different status, doctors were to a much greater extent hired on a permanent basis, and the reputation of hospitals improved.

In Christiania, the functions of the city hospitals were transferred to Rikshospitalet in 1826 with the city being guaranteed a certain number of beds there. In 1859, this system was replaced when Kroghstøtten opened as the city’s own hospital. The growth of the city meant that a larger hospital was needed, and in 1887 the first building phase at Ullevål was completed.

In Bergen, the equivalent new facility did not appear until Haukeland hospital was completed in 1912. In the meantime, Bergen civic hospital expanded through the construction of an addition, by the taking over the previous leprosy hospital Lungegaardshospitalet in 1894, and by the construction of a disinfection facility (“Lasarettet”) in 1891. The insane asylum and mental health hospital were integrated in the hospital, but these were separated out as a result of the act relating to the insane in 1848. Patients were also received from the amts Søndre and Nordre Bergenhus (Hordaland, Sogn og Fjordane) in that the amts paid to have patients admitted to the city’s hospitals.

The development in Nordland is another example of how local initiatives shaped hospital developments. “Det Nordlandske Medicinalfond” (“The Nordland Medical Fund”) was based on fees from fisheries products and covered the construction and operation of the first hospital, located at Bodøsjøen. Later, the fund also covered new buildings in Bodø (1832 and 1881), and the municipalities and the amt were additional actors. The collaboration of multiple actors at the local and regional level steered developments.

HOSPITAL ARCHITECTURE: PAVILIONS AND CORRIDORS

In line with the Enlightenment, new ideas about hospital construction emerged in the 18th and 19th centuries. Frederiks hospital in Copenhagen (1757) was in the baroque style, with open wards (with no corridors), but at about the same time ideas about pavilions and corridor systems emerged that broke with this type of structure.

Hôpital Lariboisiére in Paris (1846–54) entailed a breakthrough for the pavilion hospital. The pavilions (buildings with three floors of hospital wards) were located far apart and were connected by colonnaded walkways. This became an important model in the 19th century. The other important model was the corridor system, as for example expressed in the Municipal hospital in Copenhagen. This was built in 1859-63, and is based on side corridors running the length of the building. The new building at Rikshospitalet from 1842 was not inspired by either of these systems: for example, this building had corridors in the middle of the building, which at the time was pointed to as a disadvantage because the corridors were dark, closed-in and collected “bad” air.

The pavilion system and the corridor system were to be highly influential on hospital construction in the 19th century. In terms of style, the first part of the century was characterised by Classicism and Empire, followed later by Historicism, where styles from previous eras were “rediscovered” and given new content (for example Neo-Gothic, Neo-Renaissance and Neo-Baroque). Buildings in wood were often built in the so-called “Swiss chalet style” with large roofs and wood décor. With regard to the functional aspects, theories about infection and disease prevention greatly influenced design. In practice, the miasma theory continued to have an impact for some time after it had been discarded scientifically. According to miasma principles, buildings were to be located somewhere dry, high, in open space and sheltered from the wind. Damp ground was prohibited because rotten earth was seen as the cause of smells that could cause disease. Emphasis was also
placed on planting trees around hospitals, as well as on light and ventilation. These ideas advanced the pavilion hospital while also discouraging the old, compact hospital buildings.

Kroghstøtten hospital in Christiania was built taking some of these hygienic conditions into account. However, it was the new Rikshospitalet and especially Ullevål hospital (1887) that first represented the breakthrough of a planning in which medical knowledge and building competency

"The new Rikshospitalet facility" dated 1883. The facility was very well thought out and carefully planned. At the top left, located on its own, we can for instance see the so-called typhus barracks.

The picture is from the Festschrift for the Royal Frederick University 1811-1911 (1911).
were integrated. The new Rikshospitalet that was completed in Pilestredet in 1883 was partly organised in accordance with the pavilion principle. The building was in a restrained Classicism and doctors had been heavily involved in the planning process.

The epidemiology department that was the first building phase at Ullevål (completed in 1887) was a more thorough version of the pavilion principle. Four hospital pavilions comprised the core of the facility. These were wooden structures in one level with a two-level mid-section in brick, executed in a simple Swiss Chalet style. Ventilation and air were emphasised: windows were placed near corners to “air out dead corners”, ventilation towers (“miasma towers”) were placed in the garden between the buildings, and air was led into the pavilions through subterranean channels. The park was also carefully planned and the hedges served the function of protecting against bad air from the outside and between the pavilions.

Later expansions moved away from the pure pavilion principle. Larger buildings with corridors were more practical, and after the introduction of antiseptics and bacteriology, it was no longer considered necessary to have great distances between the buildings. The art historian Wenche Louise Nielsen points out that though antiseptics and bacteriology had their scientific breakthrough in the 1880s, it was in the 1890s that they led to new architectural solutions. A concentration of the buildings was again possible. Nevertheless, some of the elements that were central during the reign of the miasma theory continued to be emphasised: leisure areas, air and light.

In the course of the 1800s, health spas were created in several places. The Sandefjord baths opened in 1837, St. Olav’s baths at Modum opened in 1857, Greven Vandcuranstalt opened the same year and Hanke baths in 1877. As institutions, they can be compared with the mountain sanatoriums that were established before 1900. The “patients” were people from the bourgeoisie and upper class, and the stays met the need for rest and quiet just as much as they served health purposes in a stricter sense.

When public health was placed on the agenda in the late 1800s, issues around baths also became important. Baths were built by both municipalities and private bodies, and school baths played an important role in this work. In the 1920s, this was further developed into swimming pools many places, with the schools leading the way. Baths became important elements in hospitals in the cities. For example, Bergen municipal hospital added baths around 1840, and city residents could also use them on payment.

A change in the view of the somatic hospitals was also underway. They were about to become more sharply distinguished from other institutions (such as asylums, old age homes, etc.) and more sharply distinguished from care for the poor. Rikshospitalet's new facility and Ullevål hospital were the foremost expressions of hospital buildings according to the ideals of the time, with architectural, engineering and medical competency as important factors in the planning.

Hospital building in the rest of the country appears to be marked by diversity. Large hospitals were planned in both Trondheim and Bergen at the turn of the century. Most hospitals in the country were still small and in many places buildings were used that had originally been built for another purpose.

**PSYCHIATRY: FROM LUNATIC ASYLUM TO ASYLUMS**

The act relating to the insane of 1848 removed the lunatic asylum ("dollhus") from medical statistics. The term "asylum" ("asyl") replaced it, and in 1854 six of these are mentioned in the medical statistics: Christiania, Oslo (at Oslo hospice), Christiansands, Stavangers, Bergens and Trondhjems. However, the break was not definitive: all of these institutions had previously been lunatic asylums, but had been approved as asylums in the aftermath of the act relating to the insane. Physically the lunatic asylum in Christiania was thus in operation until 1908, in Trondheim until 1921, and in Bergen the public hospital for the insane operated until Nevevangården asylum (subsequently Sandviken) opened in 1891.

In Bergen, the "hospital for the insane" had been built as early as in 1833, next to the old lunatic asylum. The break with the cell-like design of the lunatic asylum means that this can be considered one of the earliest insane asylums in the country. The hospital for the insane was administratively integrated with the civic hospital, and they were located in the same area at Engen. It was only as a result of the act relating to the insane of 1848 that they were organisationally separated. In this way, the act introduced a division between the somatic ill and the mentally ill that had previously been less clear.

A direct follow-up of the intentions in the act relating to the insane came in the form of the 1855 establishment of Gaustad asylum as a state-owned asylum. This was also the largest hospital in general in Norway in the 1850s: with 300 beds it beat both Rikshospitalet and the leprosy hospital Pleieanstalten in Bergen. Gaustand thus dominated among the Norwegian asylums: in 1858, it had nearly 78,000 patient days; the second largest was "Tronka", or Trondheim asylum, with 23,621 patient days. It therefore became a natural centre of Norwegian psychiatry; teaching of medical students took place here and according to Svein Atle Skålevåg, a historian of psychiatry, the Director gained "a sort of primary position in Norwegian psychiatry".

The prime of the asylum as an institution only really took off in the last decades of the 19th century, with the creation of more asylums, and with increasing numbers of doctors specialising in psychiatry. In addition to Gaustad, two other state asylums opened in the second half of the 19th century: Rotvoll in Trondheim (1872) and Eg in Kristiansand (1881). Two private asylums also opened in Bergen: Dr. Rosenberg's (1862) and Møllendal's (1865). Yet in parallel with the asylums, care was also provided in private; in other words, psychiatric patients were cared for in families, often in the rural areas, and a large number of patients continued to be treated in this manner some time into the 20th century. Additionally, some were treated at somatic hospitals.

---

The newly constructed asylums had a number of special features, both as types of institutions and architecturally. Most were located some distance away from urban areas, and they were built as self-sustaining communities with farming that was to provide both income and food, and function as therapeutic work.

Policies on insanity shows an active state, both as a facilitator through legislation and through the creation of state asylums, which contrasts to the decentralised development of somatic medicine. However, the state was also active in relation to leprosy.

LEPROSY: THE STATE Assumes RESPONSIBILITY

In a European perspective, leprosy was an illness on the wane in the 19th century, but in Norway it continued to be common. On the initiative of the government, a research hospital was therefore built in Bergen – the Lungegaardshospital – that was completed in 1849. A larger state institution, Pleie-stiftelsen no. 1, was also built in Bergen and opened in 1857. In 1861, the state leprosy hospitals in Romsdal amt (Reknes) and in Trondheim (Reitgjerdet) were completed. The construction of these institutions clearly reflected the state’s willingness to tackle the leprosy problem, and their aims included nursing, segregation of leprosy patients from the general public and, not least, research.

These leprosy hospitals had some similarities with the asylums: they were built as institutions that segregated their patients from the general public, they were established for a group of patients that it was relatively easy to argue that society had to protect itself against (both based on traditional stigmatising views of lepers and based on modern medical understandings of the causes of the disease). To some extent, we can thus understand the more proactive state intervention with regard to leprosy and psychiatry as a result of the particular characteristics of the patient groups, which meant that liberal arguments lost their power.

As modern institutions they were thus part of a larger contemporary project of segregating patients, exemplified by the large contemporary institutions such as, for example, Gaustad (or Botsfengselet prison from 1851 for that matter). These were monumental facilities and they were also "total". In sharp contrast...
to the somatic hospitals, they functioned to some extent like small communities within the community.

In the 19th century, the hospital emerged as an independent institution, and there was a more fine-tuned division into different types of institutions and more rigid distinctions between different patient groups. This took place at the same time as the medical system was in the process of presenting itself as a more independent phenomenon – something different than services for the poor. However, elements of the old traditions remained in place, and it was only in the 20th century that large hospitals with a larger staff became a nation-wide phenomenon.

"The endowment for the care of lepers, no. 1" ("Pleiestiftelsen for spedalske no. 1" (also known as "Pleiestiftelsen") in Bergen opened in 1857 and was named as such because the endowments Reknes near Molde and Reitgjerdet near Trondheim (both opened in 1861) were expected to be numbers two and three. The building is massive and in the Swiss Chalet style, drawn by architect Hans Hansen Kaas. It may be Norway’s largest building in wood. It was built for as many as 280 patients. "Pleiestiftelsen" received international attention and was seen as a model of hospital construction. The institution was the site of Gerhard Armauer Hansen's research on leprosy. It stands as the main representation of the state's offensive against leprosy in the 1800s, but is also an example of the general building of large "total" institutions such as Gaustad asylum and Botsfengselet prison in the mid-1800s. Since 2002, the buildings have housed the Medical Birth Registry at the University of Bergen.

Photo: The Regional State Archives in Bergen.
As we do not have a complete overview of the locations for the different amt hospitals, these have been placed randomly in the ams. Note that some of the amt hospitals may also have been located in other ams, but they are placed on the map based on the amt that owned the hospital. Also note that many institutions have been left out of the statistics, such as St. Jørgen’s hospice in Bergen.
Around 1900, the hospital as an institutional type was still characterised by the majority of the patients having a low social status and by many being admitted for the account of the state service for the poor. This changed in the course of the first half of the 1900s, and the status of hospitals improved. As medical knowledge and technology developed, hospitals were more clearly differentiated from nursing and care institutions, and emerged as centres of advanced and prestigious medical treatment and research.

The specialisation led to the development of new, distinctive institutions in the course of the century, and institutions that had barely been established at the end of the 1800s were further developed and specialised. The most important part of this is that the tuberculosis institutions (sanatoriums and tuberculosis homes) were established throughout the country, institutions treating addictions appeared, there were more institutions for the mentally disabled, and nursing homes became a distinct category. Maternity wards were established across the country, and in time these became the normal place to give birth.

From the 1960s, we also see the opposite trend: institutionalisation is criticised, and a partial dismantling of the number of beds within psychiatry and services for the mentally disabled takes place. Furthermore, there is a parallel institutional concentration, a "de-specialisation", as several functions are located in the larger hospitals. Both psychiatry and, for instance, pulmonary departments, become parts of the large hospitals, where previously they had to a greater extent been separated out into their own institutions such as psychiatric hospitals and tuberculosis sanatoriums.

The key trend in the last century or so is the significant construction of institutions. The hospital has achieved its clear form as an institution and building, both in the terrain and in the mental landscape of most people.

Society and health

DEMOGRAPHICS

The population of Norway has more than doubled since 1900, when it was 2.2 million against the current 5.1 million. Just as significant as the large population increase are the changes in patterns of where people live: around 1900, a third of the population lived in urban areas, and right up until after the Second World War, more than half of the population lived in rural areas. The second half of the century was characterised by a continuous movement towards urban areas, and in 2005, nearly eight of ten people lived in urban areas.

The 1800s are characterised by an unprecedented decline in the mortality rate, and though the decline in mortality (especially among infants) continued in the 1900s, it is the change in the birth rate that is the key demographic trend. While in 1900 there were about 30 births a year per 1000 population, in the early 1990s this had more than halved.90

These demographic facts tell us something
about how much society has changed in the last century or so. The country has been urbanised and families have become smaller. This coincides with changes in the disease situation (the eradication of a number of illnesses, an increase in others - especially the so-called lifestyle diseases), the construction of a welfare state, and not least a health service in which the hospital for the first time in history is central.

**WELFARE: THE SYSTEM AND THE ACTORS**

Until the 1930s, the systems for helping people during illnesses and old age were mainly characterised by a social assistance approach (see separate box) and a conglomerate of public and private actors. Subsequently, a new phase emerged: the welfare state was about to be established.

In the early 1900s, a number of reforms of social schemes were made, such as the improvement of the health insurance scheme in 1909 and the introduction of the principle of the father’s duty to also pay support for a child born out of wedlock. This type of measure shows us a state more willing to take action with regard to social policies. Nevertheless, it is only in the mid-1930s that we can talk about a transition to a welfare state characterised by social solutions that all citizens were entitled to and that were mainly a state responsibility. It was only in the post-war period that this welfare system was really expanded and consolidated, and in the decades after the war there was a general political consensus about the key characteristics of this system. The collection of all national insurance schemes in one act, the National Insurance Act of 1966, is generally seen as the crowning achievement.

The transition from a social assistance state to a welfare state also impacted the hospital sector. In the first half of the century, the sector had little central coordination, and included state, county, municipal and private actors as owners and operators. It was only with the Hospital Act of 1969 that a real coordination of hospital construction emerged and there was also a clear allocation of responsibility to the counties.

**DISEASES, KNOWLEDGE, TECHNOLOGY**

In the period from 1900 to about 1950, the clinical picture was primarily marked by tuberculosis. Though this disease peaked as a cause of death in 1900 (when it killed 7,000 people), it remained a significant threat until the infection figures started to decline radically and treatments became more effective in the 1940s. Tuberculosis is also in a unique position as an “institution builder” in the first three to four decades of the century. This contrasts with, for example, the Spanish Flu epidemic that hit the country hard in 1918 and 1919. The Spanish Flu infected 1.2 million people (in other words, nearly half the population), and killed 15,000. It had significant cultural symbolic power, but did not lead to the creation of any unique institutions.

The traditional infectious diseases that had previously dominated, such as tuberculosis, polio, diphtheria and measles, became much rarer in the post-war period. In this situation, it was the so-called

---

**SOCIAL ASSISTANCE STATE – WELFARE LOCAL AUTHORITY – WELFARE STATE**

"The social assistance state" is the term Anne-Lise Seip uses to characterise welfare policies in Norway from 1870 to the middle of the 1930s. She believes the era is marked by the driving forces in the construction of social measures being the state, municipality and private actors (often in the form of non-profits). These three main types of actors forms what she refers to as the "welfare triangle".

In contrast, the historian Tore Grønlie argues that the authorities, meaning the county authorities and the primary municipalities (and especially the cities) played a more central role than the other actors in the triangle. According to Grønlie, the term "welfare local authority" therefore captures the characteristic of the period better. In Grønlie’s view, the local authorities were the driving forces in the development of the welfare measures, and were more central than both the state and the private actors until some time into the post-war period. The term "welfare localism" (Grønlie 2004b) also captures the developments within the hospital sector. Local needs and a multiplicity of local interests created welfare schemes and established institutions.

In a welfare state, the state and the public sector have the principal responsibility for the welfare of the citizens. In the Scandinavian welfare state model, the idea of universality is central. This means that welfare services apply to all citizens, and that benefits and the taxation system are organised with a view to redistribution and levelling out income differences.

In Norway, the move from a social assistance state to a welfare state is often dated to when the Labour Party assumed power in 1935, but it was especially in the post-war period that the system took shape. Where the municipalities were often the ones that initiated and operated welfare measures until 1935, after that the state entered gradually, issuing regulations and assuming responsibility.

that grew. In this spectrum, we can include both cardiovascular diseases and psychiatric afflictions. While tuberculosis stood out as the most frightening disease a century ago, cardiovascular diseases and cancer have today become common, and they influence the health service and hospitals.

Antibiotics were discovered in 1928, and some years later they had been developed for general use in medical practice. This revolutionised the fight against diseases, including tuberculosis. In the 1900s, as a field, medicine made new revolutionary discoveries (antibiotics, hormones, etc.) and made use of the knowledge through the development of technology and competencies. X-rays were discovered at the end of the 1800s, but only started to be widely used in the next century. Today, hospitals are technologically advanced institutions, in stark contrast to what was the case a hundred years ago.

THE HEALTH SERVICE

The Ministry of Social Affairs was created in 1916, and it had two offices for medical issues. Special chief physician positions for tuberculosis (1914) and psychiatry (1919) were also established. With regard to the doctors, the Act regarding medical business ("Lov om offentlege legeforetømming") from 1912 enhanced and expanded the district doctor scheme (which was a public servant appointment). The municipal involvement in health issues was nevertheless the most important in the first half of the 1900s, when the municipalities fronted the construction of somatic hospitals. Non-profit organisations were also central in the work on public health.

The recession in the 1920s slowed the growth in health measures somewhat. It was only around 1935 that a watershed appeared: the general financial outlook was again looking good, while at the same time ideas about a welfare state were starting to have an impact. In the field of health policy, Labour Party policies represented a turnaround. One of the prime movers for an improved health service run by the state was the young, radical doctor Karl Evang, who in 1938 was appointed Director of Medicine.

After the war Evang continued to hold the position, which was renamed Health Director, and he was able to further develop a social-democratic health policy programme. In 1945, he outlined four focus areas: the reorganisation of the central administration, the reorganisation of hospitals, improving the number of doctors per head of population and the reform of health legislation. Evang continued as the Health Director until 1972, and was able to implement many of his ideas. The reorganisation of the central administration may be the most important of these. In 1948, a separate Directorate of Health was created as part of the Ministry of Social Affairs, and this had a tremendous impact on health policies. Evang also succeeded in his vision to include more medical expertise in the administration. At the same time, much of Evang’s programme took time. For example, as early as in 1946, he believed that one of the most important tasks was to put in place a hospital act, as the hospital was one of the "most important foundations in the system of social security and safety that any modern society seeks to create". This act was not passed until 1969, and despite attempts to guide and coordinate hospital construction in the post-war period, it was still the municipalities and counties that were in charge until the act came into effect.

The Hospital Act stipulated that the county authorities were to build hospitals and create plans for such development, and the central administration was only to coordinate and regulate this work.

The Act relating to the municipal health services of 19 November 1982 meant that the Health Act of 1860 was finally replaced. The Municipal Health Act meant that the state district doctor position disappeared, and municipal doctors were appointed instead. In this way, the municipalities still had an important function in the welfare state, but now more as a manager of shared policies than as an innovator and initiator.

In about 1970s, criticism of centralisation, democracy (professional governance), the ever-growing state and institutionalisation was levelled. As a result of both the municipal health reforms and other trends, municipalities took on more tasks. In 1988, a reform stipulated that nursing homes were to be municipal, after having been the responsibility of county authorities since the Hospital Act came into force. The so-called HVPU reform ("Health care for the mentally disabled") may be the most well-known example of de-institutionalisation and of the municipalities being given more tasks in this period. The reform meant that what had previously been the task of the county authority became the task of the municipalities.

A more gradual change was that the municipalities were given more responsibility for mental health: in particular after 1980, the number of institutional beds at the large psychiatric institutions (owned by county authorities) declined, while outpatient nursing and care organised by the municipalities...
The institutions

We have chosen to start with the history of the psychiatric institutions, which is the institutional type that has been regulated the longest through legislation and a coordinating central policy. We will then take a closer look at the tuberculosis institutions. These deserve quite a lot of attention here because they constituted a significant part of the institutions in the first half of the century, and because they helped shape the health service generally. Like the psychiatric institutions they have been regulated through legislation, but responsibility has been divided between multiple actors and the relationships between them are more complex than for the psychiatric institutions. Finally, we look at the somatic hospitals, which were not regulated by any central legislation until the Hospital Act of 1969, and which may be the institutional type for which it is most difficult to identify a pattern.

Institutions for the mentally disabled, nursing, institutions in Sami areas and institutions for addicts are discussed in separately.

PSYCHIATRIC INSTITUTIONS

Psychiatry is likely the part of the health sector that has been the most impacted by regulation: first through the act relating to the insane of 1848, and later through the Mental Health Act of 1961 (in addition to other laws and regulations). This led to a system of central institutions organised by the...
state and counties. That the state entered the field of psychiatry in such a forceful manner with regulations and the building of institutions, is likely a reflection of a general belief that protecting this type of patient was necessary and that treatment was possible through the establishment of these large institutions.

The ideals regarding the design of the institutions changed in the course of the century. Around the middle of the century the movement was away from the typical "asylums" that were isolated institutions located far away from urban areas. Later on, there were criticisms of the very idea of institutionalisation. The criticism arose especially from the 1960s onwards, and the transition to outpatient departments and to care in the form of home services organised by the municipalities can be seen as responses to this challenge. Through the new act of 1961, the institutional part of psychiatry had become the task of the county administration. As a consequence of the hospital reform of 2002, the psychiatric institutions, as well as the somatic institutions, were moved from the county to the state.

At the start of the century, several amts built larger asylums. The asylum as an isolated institution, a miniature community, continued to exist as the main model for psychiatric institutions until the post-war period.

In 1892, the Storting decided to build an insane asylum in Bodø for the northernmost part of the country. The giant building project, which was to provide 230 beds, started in 1895 and Ronvik State Asylum was completed in 1902. The regular architectural model for insane asylums – the pavilion model – was proposed in the planning process, but the Director of Medicine concluded that this was unsuitable for the northern Norwegian climate, and selected a more compact solution. The two last state asylums that were built in the late 1800s, Eg (Kristiansand) and Rotvoll (Trondheim), served as models. In line with earlier asylums, the facility had strictly divided wards for men and women. As was common in asylums, there was an associated farm and housing for employees. In 1962, Ronvik went from being a state asylum to being a psychiatric hospital for Nordland county. In line with the new act regarding psychiatric care, responsibility was expanded to a broader spectrum of psychiatric conditions. The 1972 health plan for Nordland county envisaged a reduction in the number of beds within psychiatry, decentralisation and the creation of several smaller institutions within Child and Adolescent Psychiatry. As a result of the 2002 reforms, Ronvik became part of the specialist health service and the Nordlands-sykehuset Health Trust.

In 1902, there were four state asylums: Eg, Rotvoll, Gaustad and Ronvik. At the same time, there were asylums operated by counties and municipalities. The great expansion in subsequent years was carried out by amts/counties: between 1904 and 1926, as many as ten amt asylums were built. In the same period, only two municipal asylums were added: Østmarka in Trondheim and Dikemark in Asker for Oslo municipality. In addition, the first clinical department opened at a somatic hospital at Ullevål in 1917.

The general trends in the post-war period include the reduction of the large "closed" institutions (instead, there is an expansion of clinics associated with somatic hospitals), the construction of separate Child and Adolescent Psychiatry Clinics, as well as a greater decentralisation of clinics (for instance through what today is called District Psychiatric Centres).

The Mental Health Act came in 1961. The
counties took over the psychiatric hospitals and the overarching responsibility for psychiatry. Psychiatry thus anticipated the development for the somatic hospitals that came under the ownership of the country administration after the Hospital Act of 1969.

The differentiation between psychiatry and somatic medicine was sharp a hundred years ago. The insane were seen as a group that society especially needed to protect itself from and, in turn, that needed to be protected from society. Most of the large facilities from the mid 1800s and onward are marked architecturally by this attitude: they are in isolated locations, and they have clear boundaries and fences.

In the mid-1900s, there was a focus on how psychiatric illness was not significantly different from other illnesses, and there was criticism of the way that psychiatric patients were given a status as virtual outcasts. This led to psychiatry becoming more closely integrated in the rest of the health service: there were more psychiatric departments integrated into somatic hospital facilities. With the hospital reform of 2002, psychiatry became part of a common legal framework for specialist health services.

THE TUBERCULOSIS INSTITUTIONS
Tuberculosis was seen as one of the biggest threats to health in the first half of the 20th century, and prevention and treatment of this illness constituted a significant share of public and non-profit health services. As in psychiatry, this was regulated through legislation – the Tuberculosis Act of 1900 – and in the following years, the state built and operated institutions. The interaction between state, municipal and private actors (the latter were mainly non-governmental organisations) is nonetheless unique to the building of tuberculosis institutions. They are thus examples of how the driving forces for the improvement of public health and welfare measures came from different spheres, as summarised in the term welfare triangle.

The illness existed far back in history, but it was only in the mid-1800s that knowledge about treatment and cures was available. For example, the German doctor Hermann Brehmer believed that the illness could be treated by spending time in fresh air and under good sanitary conditions. He started the first so-called sanatorium in the 1850s in Göbertsdorf in Silesia. This became the model for an entire movement: the sanatorium movement.99 The method of treatment was called "dietary-hygienic", and created a school for subsequent sanatoriums. The elements were nutrition with a lot of vegetables and fruit, fatty foods, good hygiene, leisurely walks and, not least, lots of fresh air.

Robert Koch’s discovery of the tuberculosis bacteria in 1882 meant that it was possible to identify

TUBERCULOSIS
is a serious infectious disease. It has a long incubation period, and infections primarily occur as droplet infection. The lungs are therefore affected, but the disease can spread from there to a number of organs. Primary tuberculosis usually heals spontaneously, but can also very slowly develop into chronic pulmonary tuberculosis which causes coughing and emaciation. In rare cases, it develops very quickly (acute consumption) and it is then similar to pneumonia. A certain diagnosis can only be made through an X-ray examination and the identification of tuberculosis bacilli. Earlier it was a common, feared and lethal disease, but it is now under relatively good control in Norway, though not elsewhere in the world. A vaccine exists. Can be treated with antibiotics over a longer period with good effects, but resistant bacteria are increasingly a problem.

Gausdal Heifeldssanatorium was built in 1876 as a combined alpine hotel and sanatorium. These places were for the wealthy, and in literature they have had a romantic tinge.

Photo: D. Sibrølts Eft. Lillehammer. The Norwegian Directorate for Cultural Heritage Management.
infection, and in the following years, a diagnostic apparatus was developed with pirquet tests, saliva tests and X-rays. With regard to institution building, activity was at its greatest in Norway between 1900 and 1930. The institutions can be separated into two main groups (though in practice it was a complex group of institutions and buildings that were used for tuberculosis patients): Sanatoriums were large institutions whose main goal was treatment. Tuberculosis homes were usually smaller and were to a greater extent care homes for more serious cases. Therefore, many people saw them as warehouses for dying patients.

In the last decades of the 19th century, institutions that used the sanatorium method were slowly being opened in Norway too, but the first ones were not primarily tuberculosis institutions. Several of these were for wealthy patients, and some functioned as combined alpine hotels and sanatoriums. Gausdal sanatorium from 1876 was described by one its founders as "a Facility where Gentry of both Genders and all Ages who are ill and tired can find Rest, Quiet and Strength – in other words, Primarily a Spa, secondarily a Summer hotel". The sanatorium as an institution was associated with new ideas about hygiene and health, with national romanticism, and with the increasing need for rest and recreation among the bourgeoisie.

Several of the institutions that later became tuberculosis institutions only were originally spas open to patients with various diseases. It is not clear whether this was also the case for Gjøsegaard sanatorium by Kongsvinger (private, 1894), which is often considered the first institution in Norway solely for tuberculosis.

A tuberculosis act was proposed by the Bergen doctor Klaus Hanssen as early as in 1884. The work took time, but in 1889, the Tuberculosis Poster was issued. It listed 11 precautionary rules "against Pulmonary weakness and related Diseases", and was produced and distributed by the Medical Association. The work on a tuberculosis act was slower and faced opposition. Some objected to the coercive measures in the act, others believed that the act did not sufficiently see the tuberculosis issue in its larger social context. Wollert Konow from the Conservatives stated that the act would entail "one of the most significant interventions in personal freedom that our generation will ever have to vote on". The institutionalisation of the disease took off with the "Act relating to special Precautionary measures against tubercular diseases" ("Lov angaaende særegne Foranstaltninger mod tuberkuløse Sygdomme") of 1900.

The development of tuberculosis institutions was unique in that there was cooperation between public, private (commercial) actors as well as with non-governmental organisations such as Norwegian Women’s Public Health Association (NKS, founded in 1896), the Red Cross and the "National Association Against Tuberculosis" (founded in 1910). "People’s Sanatoriums" ("Folkesanatorium") –

---

Grefsen Vandcurlanstalts main building remains standing, along with several later buildings from the sanatorium era. Some of the view of the Oslo fjord has also remained, but a denser cityscape has reduced the rural atmosphere. Photo: Xylografi. The Norwegian Directorate for Cultural Heritage Management.
sanatoriums for a broader segment of the population – started to be established around the turn of the century, and most were state-owned. The first state sanatorium was Reknes in Molde (previously a leprosy hospital), which opened as a sanatorium in 1898. Later, the state established the sanatoriums Landeskogen (Aust-Agder), Vensmøen (Nordland), Glimtø (Akershus) and Ringvål (Sør-Trøndelag). In 1902, Harastølen in Luster opened. It was a facility built specifically for tuberculosis treatment and was run by a private foundation, but financed by the state. Grefsen sanatorium in Oslo was run by the Norwegian Women’s Public Health Association (NKS), while the sanatorium in Sand in Ryfylke was operated by the Red Cross. The tuberculosis homes were operated by county authorities, municipalities and non-governmental organisations. The first tuberculosis home opened at Grorud in 1903 and was also operated by NKS.

Grefsen people’s sanatorium is an example of the dynamics between different actors in the construction and operation of sanatoriums. The facility was originally a bath institution (Grefsen Vandcuranstalt) that opened in the 1850s. From 1899, it was run as a private sanatorium for people with tuberculosis, and then in 1909 it was transferred to NKS and run as a people’s sanatorium.

The so-called coastal hospices can be distinguished as a separate type of institution. These were first and foremost intended for patients with Scrofulous (tuberculosis in the lymph nodes) as it was believed that these patients needed the sea air and to bathe in the sea, in contrast to consumptives (pulmonary tuberculosis) who needed fresh and dry mountain air. Pulmonary tuberculosis was most common and therefore received the most attention, in part because it was the most infectious, but coastal hospices for patients with Scrofulous were built in several places in the country. Here, the remedies were bathing in sea water, rest, bandaging, sun and fresh air.

Scrofulous especially affected children. The first Norwegian coastal hospice opened in Fredriksvern (Stavern) in 1889, others opened in Vadso in 1915 and in Tromsø in 1923. The coastal hospice in Hagavik in Hordaland was completed in 1892 and was mainly for children with Scrofulous. It can be interesting to look more closely at this, as it illustrates how an institution changed functions after tuberculosis had been eradicated. The initiative for the hospice came from doctors in Bergen and it was organised as an endowment with funding from actors such as savings banks and liquor shops (“brennevinssamlag”). In time, the state also made significant financial contributions, though it did not assume ownership. The facility was expanded several times, and had its own farm and power station. As tuberculosis (and scrofulous) disappeared, the hospital had to take on new functions. As scrofulous treatment had provided competence in orthopaedics, the hospital continued...
PRIVATE HOSPITALS

Hospitals operated by Deacons and Deaconesses, Catholic hospitals, tuberculosis institutions and institutions for addicts operated by non-profits, are discussed elsewhere in this report. However, there were (and are) additional private somatic hospitals that do not fit within these categories. There is no complete historical overview of these, and to get an overview of the field would require a separate study. However we can identify some trends that stand out.

**Non-profits:** The Norwegian Women’s Public Health Association is an example. They have also established institutions independently of the tuberculosis work, for instance Orkdal hospital. This was started under the name Orkdal Nursing Home in 1909 and the Orkdal Public Health Association was the owner. People with tuberculosis were one of the main groups of patients. In time, it came to have functions like a hospital, and in 1935 it changed name to Orkdal hospital, NKS. As a consequence of the Hospital Act of 1969, Sør-Trøndelag county took over the funding of the hospital, though the Public Health Association continued to own it and elected the Board. The hospital was later taken over by the county, and following the hospital reform, by the state. Today, it is part of the St. Olavs Hospital Health Trust, but the Women’s Public Health Association remains the owner of the buildings.

NKS has also operated other hospitals, for instance Koppervik hospital at Karmøy, which was in operation from 1925 to about 1960. The organisation also started the first rheumatism hospital in the country: the Oslo Public Health Association’s Rheumatism Hospital in 1938 (which became part of Rikshospitalet in 1995). Local branches of the organisation also operated rheumatic hospitals in Haugesund (opened in 1957), Lillehammer (established as tuberculosis home in 1915, a rheumatism hospital from 1958) and Trondheim (opened 1959).

The Red Cross is another non-profit that has operated hospitals.

**Company hospitals** – when larger companies were established in the first half of the 20th century, the terms of their licenses often required establishing a hospital. This was the case when the smelting plant in Sauda was established in 1913 and when another was established in Høyanger in 1915. Sauda hospital was therefore established by the company in 1926. Høyanger hospital was built by the municipality and the company in 1934 and taken over by the county in 1948 (but operated with subsidies from the company thereafter also). The number of such hospitals that were entirely or partially operated by companies around the country, and how the terms of licenses requiring the creation of hospitals were followed up on, remains to be studied in further detail.

**Foundations/endowments:** A number of institutions have been created as a result of gifts, endowments or wills from individuals. One example of this is E. C. Dahl’s maternity foundation in Trondheim. Another example is Martina Hansen’s Hospice in Bærum, which came about after the donor wished to create an institution for children with scrofulous. The hospital opened in 1936, and was for people with tuberculosis in bones and joints, and scrofulous. After the clinical picture changed, the hospital became an orthopaedic surgery hospital, and today the hospital is a specialist hospital in orthopaedic surgery, rheumatology and rheumatic surgery. It remains a separate endowment and has an operational agreement with the Eastern Norway Regional Health Authority.

"**Commercial hospitals**." Commercial hospital operators appear to have a short history in Norway. Today, these actors include Volvat Medical Centre and Aleris Helse, which operate medical centres and hospitals in several places in Norway. Attendo Care operates several nursing homes.


Martina Hansen’s Hospice in Bærum was completed in 1936, drawn by Victor Nordan and his son Per. It is a good example of a privately funded hospital, and is also an important example of early functionalist architecture. Photo: J.H. Küenholdt. The Norwegian Directorate for Cultural Heritage Management.
to focus on this area, and in the 1969 hospital plan for Hordaland, it was given status as the orthopaedic hospital for the entire west coast of Norway. In 1976, the county took over the ownership and operation of the hospital, and in the hospital reform of 2002 it was transferred to the Bergen Hospital Trust. There, it serves as a specialist hospital for elective orthopaedic surgery.

The big expansion phase for tuberculosis institutions continued until the mid-1930s. Tuberculosis was later in retreat: the introduction of antibiotics after 1945 and mass vaccinations led to the suppression of the disease. Thus in 1960, there were only 200 deaths caused by the disease, against about 7,000 around the year 1900.

The fight against tuberculosis also had an important arena outside of the institutions. For example, the National Association Against Tuberculosis took the initiative to set up assistance stations in all municipalities in 1920. Furthermore, in 1926 a central board was created for tuberculosis, with representatives from the public sector and from the three large organisations active in the work on tuberculosis (NKS, the National Association and the Red Cross). At the county level, there were tuberculosis committees headed by the County Governors, and diagnosis stations were established – often in connection with a sanatorium or care home.

In other words, tuberculosis was central to the health services in the first half of the 1900s, as it led to the construction of institutions and a popular and state involvement in public health.

**SOMATIC HOSPITALS**

In the early 1900s the hospital beginning to get a new and much higher status as an institution. Doctors had previously viewed hospitals as unattractive places to work, but this was to change radically. For example, 12 per cent of doctors worked in hospitals in 1900, but the figure was 50 per cent in 1985. Furthermore, many hospitals in the 1800s were small and primitive (more what we would call infirmaries), but in the 1900s large hospitals with advanced technology appeared across the country.

The situation for the hospital sector before it was regulated by law was aptly described by the Hospital System Committee (appointed in 1957), which thought the sector consisted of "a fairly confusing number of different types of hospitals and closely related health facilities or health institutions for diagnosis, treatment, post-treatment, rehabilitation and medical care". The hospital sector in the 1900s is in other words not easy to grasp as a historical phenomenon. When we nevertheless are to attempt a summary, it is with the caveat that this is a simplification and that we must relate to the literature and research available thus far.

It was only just before and after the war that the central administration took a serious interest in creating a comprehensive hospital policy. The Director of Health, Evang, saw a planned development of the hospitals as one of the most important goals for the sector right after the war. He believed that the country needed large and advanced hospitals in the regional centres (he envisioned 15 of these), and smaller local hospitals. It was also necessary to introduce a sharper functional division between care homes/nursing homes and hospitals. Furthermore, the central administration should have the ability to govern the sector, for instance by having veto power in relation to development plans that were not in compliance with the Directorate's criteria.

The Red Cross in Norway established a number of institutions, including within tuberculosis, and ran nursing training. In 1918, it built the clinic in Frederik Stangs gate in Oslo, a notable building with a façade in plastered brick. Morgenstierne og Eide were the architects, and they later drew the Folketeater building in Oslo. The clinic closed in 1991 and today the building is a private hospital. Photo: Hermann Christian Neupert. The Norwegian Directorate for Cultural Heritage Management.
Some steps were indeed taken to reorganise the hospital sector. The Directorate of Health was divided into eight offices, each with a specialist field, and one of these was the hospital office. At the same time, the State Hospital Council ("Statens sjukehusråd"), established in 1946, became the advisory body for the Directorate of Health and the Ministry. The same year, the Directorate issued a circular to the counties about appointing committees for the hospital sector. On the basis of these county-level plans, the central administration created a national plan for the hospitals. This functioned as an important working document for the sector, though it never became a complete plan.

It was only in 1957 that a hospital system committee was appointed. The first result was a recommendation regarding psychiatric hospitals (which resulted in the Mental Health Act). The main recommendation came in 1963, and it recommended fewer and larger hospitals with the state having the coordinating responsibility. The Hospital Act was finally passed in 1969 and came into force on 1 January 1970. The main principle was that there were to be larger units at the county and regional levels, and central hospitals in each county. The county authority was to take the lead both in regard to construction and operation and each county was to make a comprehensive plan for its hospital sector. This was in turn to form the basis for a national plan prepared by the Ministry of Social Affairs/Directorate of Health, and the state (Government) was to approve both the national and county-level plans. The state was to recover large parts of the expenses through health insurance payments.

The extensive time it took before a Hospital Act was passed, shows that it was a complicated issue: the willingness to coordinate, which was strong in the Directorate of Health, was not easy to realise in practice. The hospital sector was bewildering and there were many conflicting interests.

Some of the systems in the act had already started to be developed in practice. The principle regarding central hospitals had been established in the work on the national plan as early as in 1948. At the same time, regional hospitals were envisioned at the level above, and specialist hospitals at the top of the hierarchy. At the level below, there were to be local tripartite (three departments) or mixed (two departments) hospitals, and smaller infirmaries were also to some extent to be permitted. The contours of a hierarchical hospital system were thus available, a structure that at the outset had not existed.

As hospitals were neither regulated by a common legislation nor planned centrally, much was left to local actors, often with the municipalities as important actors that set the premises. For the cities it was also a question of prestige to have their own, well-functioning hospital. This system could lead to conditions that did not look very rational from the Directorate’s point of view: for instance, there were no cogent medical reasons for Porsgrunn and Skien to each build a hospital; rather, it was local patri-
FROM CALLING TO PROFESSION – NURSING AND NURSING INSTITUTIONS

The Norwegian Red Cross, which was founded in 1865, started nursing training in Kristiania in the mid-1890s and established branches in Bergen (1898) and Trondheim (1906), as well as its own clinic in Kristiania in 1902. The Methodist Church started a nursing school in 1897, and the Norwegian Women’s Public Health Association (NKS) started a nursing school in 1898 (both in the capital).

Thus there was a great diversity of institutions that trained nurses at the start of the 20th century. All of them had some affiliation with the Christian calling ethic, and the Deaconesses were no longer the only ones.

In the early 1900s, municipal nursing schools opened in Bergen and Kristiania, and these had three-year training programmes (in contrast to one to two years for the other institutions). The nurses organised themselves in the Norwegian Nurses Organisation in 1912.

In time, the nursing schools became part of the university college system and the training is now standardised. However, there is still a multitude of private foundations, such as Betanien and Diakonhjemmet. These also train nurses and have established their own hospitals (for instance Haraldsplass Hospital in Bergen).


...otism that played a part. In the time before 1945, such local initiatives governed the construction and location of hospitals. During the first decades of the century, large modern hospitals emerged in smaller and mid-size cities too, and to some extent in rural areas. These were often multi-storey concrete buildings, in contrast to the more primitive wood buildings that were the common hospital buildings outside the large cities in the 1800s. Some hospital plans from the period between the wars took time due to financial problems. Halden is one example of this: there, hospital planning started in 1934. The war delayed the plans, so that construction did not start until 1947, and the building was only taken into use in 1952. In addition to municipalities and counties, private actors such as the Norwegian Women’s Public Health Association (NKS) were also involved. The examples below of hospital building in Bergen and Trondheim illustrate how the interaction between the private, municipal and county authority levels drove developments.

The hospital office in the Directorate functioned as a consultant for hospital building across the country, and influenced the processes in that their approval was required in order to get public funding. The State Hospital Council functioned as an advisory council in these assessments, and had a professional composition that included doctors, architects, nurses, engineers and administrators. However, despite this, hospital developments after the war did not break with pre-war developments. Municipalities remained important drivers, and hospitals continued to be built in all larger towns.

When the Hospital Act was finally implemented in 1970, it caused a massive development.

The State Hospital Council played an important role in approving county plans. One example is that the Council rejected Sogn og Fjordane’s county plan, and through the Government the county was told to make a new plan. In practice, this was a central instruction to build a central hospital in Førde. For the hospitals in Florø and Høyanger, this entailed a significant reduction and the latter was finally closed in 1980. Hard battles were fought within the counties too about the location of the various hospitals, with local political interests squaring off against each other. The conflict in Sogn og Fjordane is an example of this. The battle for the existing hospitals was intense and could, as in Sogn og Fjordane, result in a situation where local hospitals continued to exist at the same time as a new central hospital was built.

The Health Authority legislation and thus the hospital reform of 2002 came after the role of the county had been discussed continuously since the Hospital Act was introduced in 1970. The act with the health trust model from 2002 fulfilled both the desire for a state takeover and the desire for greater independence for each hospital/trust.

In order to get an impression of the development in the hospital system, we are going to take a closer look at the hospitals in Bergen and Trondheim. The development in Bergen can exemplify the multitude of hospitals. Haukeland hospital was completed in 1912 and was the largest hospital in the city, with 290 beds in 1920. Årstad hospital functioned as the department for skin conditions and venereal diseases, and Lungegårdshospitalet had been transformed from an institution for lepers to a tuberculosis hospital in 1912. Additionally, the municipality had an epidemic hospital (Sandviken hospital) and some smaller departments totalling 386 beds. Further, the municipality had 420 beds in psychiatric institutions, with Neevengården asylum having most of them.

Little building activity took place between the
wars, so at the municipal level the situation looked about the same in 1945 as it did in 1920. However, the private services increased. Most of these were hospitals run by religious foundations: Hospice Betanien, the Catholic St. Franciscus clinic (later called Florida) and Diakonissehjemmet’s new hospital (Haraldsplass hospital). The private foundation that ran the coastal hospice in Hagavik, which mainly took patients from Bergen, was also included in the count. The number of beds thus increased the most in the private sector of the health system, so that nearly half of the beds were private in 1945. The state was also involved, and ran the previously mentioned "Pleiestiftelsen" for lepers and the "Fødselsklinikken" maternity ward until a Women’s Clinic was created under Haukeland hospital in 1926.

The situation illustrates the important role played by the municipality between the wars, but also that private actors (mainly religious/non-governmental organisations) were an important part of the health service.

After the war, the municipality invested heavily in Haukeland hospital, which functioned as a university hospital after the University of Bergen was founded in 1946. New departments, for instance for polio and skin conditions, were created. However, in time, both the state and the county participated in funding: the hospital functioned as an institution for the entire county, and as it was also a university hospital, the state was involved too. It was only in 1971 that the county authority took over, in line with the Hospital Act. 109

There had been no significant hospital construction in Trondheim either since the first half of the 19th century. 110 It was only in 1897 that a new hospital started to be built. This was completed in 1902 and called Trondhjems Sygehus at Oya. It was still considered to be a municipal hospital, though the county had the use of a third of the beds at the outset. Administratively it was organised under the municipality until 1948, but the county authority was also represented, for instance by being part of the supervisory committee.

The break with this form of organisation came after the war, as in Bergen. During the war, the hospital facility had been requisitioned by the Germans. In 1948, the county authority bought half of the hospital at Oya and from then on the administration was divided between the county and the municipality. The hospital was now an independent legal subject, and got a hospital board. A new facility in what became the Trondheim Central Hospital was completed in 1959-1960, in a six-storey building. In 1974, the hospital became a regional hospital in line with the new central policy that introduced a regional level. The most recent development is that the hospital in 2002 became the health trust St. Olaus Hospital, the University Clinic in Trondheim as one of the trusts in the Central Norway Regional Health Authority.

Private actors were also important in Trondheim. There was a Catholic hospice as early as in the 1880s, and the municipality participated as guarantor for a loan when the Red Cross Clinic was built in 1927. At the same time, the municipality at this time owned two municipal hospitals (Trondhjem Hospital and Trondhjem’s Civic Hospital). There were also state hospitals: Ringvål State Sanatorium was built in 1935 (at the time in Leinstrand municipality) and was the last state sanatorium built, and this lead to the closure of the tuberculosis department of the municipal hospital after a while. A private actor entered the field after the war too: the Norwegian Women’s Public Health Association built a rheumatic hospital in 1959.
Notes

NOTES TO CHAPTER 1
1 The article was originally written for the national preservation plan’s preliminary project in 2006, and was meant to show the totality of the institutional history of the health service. Several of the topics in this article will therefore be discussed in greater detail than in the other articles in the book.
3 Nordby 1989.
4 Evang quote from Haavet 1996: 41-42.

NOTES TO CHAPTER 2
5 The two first subsections are mainly based on Danielsen, Dyrvik, Grønlie, Helle and Hovland 1991.
11 Moseng 2003: 56.
13 The paragraphs on the Norwegian hospices of the Middle Ages are based on Grankvist 1982 and Fyrand 2000.

NOTES TO CHAPTER 3
16 The following paragraphs on demographics are based on Danielsen, Dyrvik, Grønlie, Helle and Hovland 1991.
17 Moseng 2003: 68.
18 Granvik 1982: 85.
20 Gilje and Taraldsen 2002.
22 Moseng 2003. As the very end of the 1500s, the state had given income to doctors in Bergen, so the selection of Villads as “the first public doctor” is made on the basis of the greater source material available from this appointment.
23 The following paragraphs are based on Moseng 2003 op. cit.
27 Granvik 1982: 86-89. In addition to these institutions, the Hird hospice in Oslo and the St. Laurentii hospice in Tønsberg continued in existence after 1537, but then as smaller poorhouses.
32 This paragraph is based on Harris 2003a.
33 The excerpt from the statute is from Abrahamsen 1988: 8, who has modernised the language.
35 Storsetten 1988. The hospice building from 1739 was protected in 1942 (the older hospice building was completely destroyed in a fire in 1794).
41 Quoted from Moseng 2003: 266.
44 The paragraphs about the “rade” hospitals are based on Danielsen 2000, Strandjord 2000 and Moseng 2003: 248-258.
46 Sygehus for venerisk Syge, Radesyge og andre ondartede Husedygdomme i Norge i Decenniet fra 1822 til 1834, in Eyr 1834. Several of these hospitals were nevertheless co-located – in other words, there were not 16 hospital buildings. Most of these were amt hospitals.
50 Wisbech 1830: 99.
51 Moseng 2003: 264.
52 Wisbech 1830: 98.
53 This argument has been developed by Svein Carstens.

NOTES TO CHAPTER 4
54 Schiøtz 2003.
56 Quoted from Bordahl 2000a: 92.
59 Holst 1833: 331–332, 342.
60 Moseng 2003: 207.
61 Schiøtz 2003: 142.
69 Sundhedscollegiets recommendation 4 October 1814, quoted from Bordahl 2000a: 93.
71 The building was completed in 1829, but during the first years it was used for other parts of Rikshospitalet’s operations.
72 Bordahl 2000a: 95.
73 Grønlie 2004a.
74 Medical Report (”Medisinalberetning”) 1834.
75 The table is based on the Medical Report (Medisinalberetning”) 1855, 1865 and 1879.
76 Schiøtz 2003: 142.
77 Schiøtz 2003: 29.
79 Andresen 2004: 97.
80 Wisbech 1830: 98.
81 The following is based on Nielsen 1997.
82 Medical Report (“Medisinalberetning”) 1854.
84 Harris 2003b, Pihl 2001.
85 Andresen 2004: 97.
86 Medical Report (“Medisinalberetning”) 1858.
89 Andresen 2004.
NOTES TO CHAPTER 5

90 Based on tables from Statics Norway.
91 The paragraph about diseases is based on Schiøtz 2003: chapter 6 and chapter 11 and Porter 1997.
93 Nordby 1989.
95 Quoted from Schiøtz 2003: 319.
97 Brykjeiflot and Grenlie 2005.
98 Fygle 2002.
102 Quoted from Schiøtz 2003: 69. The "coercive measures"

Bibliography

Børdahl, Per E., Øivind Larsen, Jacob Birger Natvig and Swärd (ed). 2001a. "Hvorfor et 'almin-