Candidate number: 496013 **HIS4090**

How tuberculosis healthcare transformed under German occupation in Norway 1940-1945

UiO Institutt for arkeologi, konservering og historie Det humanistiske fakultet

Fall 2023

Number of characters: 184 834

Maximillian Gerlyng Bracht

Acknowledgements

Throughout this academic journey I owe special thanks to two patient and kind individuals who've helped me from start to finish. Firstly, my thesis advisor, Associate Professor Johanna Conterio whose optimism, encouragement and guidance with insightful feedback consistently steered me in the right direction. Her contributions significantly influenced the structure and quality of this thesis which I am profoundly grateful for. The second person I want to give special thanks to is my father, Dr. Per Gerlyng who has been a limitless source of support and inspiration. His extensive medical knowledge and willingness to engage in discussions on the subject matter greatly shaped my understanding of the disease at the heart of this thesis. Moreover, his role in bolstering my motivation to complete this academic pursuit has been invaluable and for that I am eternally grateful. I am also thankful for other family and my friends, who've had to endure the topic of Second world war Tuberculosis healthcare for more than a sane person could stomach in a lifetime.

Table of Contents

Chapter 1

Introduction

"Tuberculosis kills more people annually than homicide, war, malaria, and typhoid combined"[1] John Green

Tuberculosis today is a disease closely linked to human development. Wealthy countries have nearly eradicated it, whilst developing and underdeveloped countries still suffer the disease's immense burdens on those who contract it, their family and their community. It is the leading cause of death globally among infectious diseases, with only covid 19 briefly overtaking it during the recent pandemic.[2] Over ten million people contract tuberculosis annually and even though it is treatable, there are major concerns about growing cases of multidrug-resistant strains, that render modern drugs ineffective.[3] Tuberculosis has been with humanity for most of its known history, the earliest signs of it stem from bones discovered and studied by bioarcheologists in Liguria, Italy around 5800 BC.[4] The spread of the disease can be traced through the bronze age to the iron age, into antiquity and the modern period. Its movements track closely with the development of civilization and urbanization.[5] Communicable diseases like tuberculosis require the right environmental conditions to spread, such as humans living in cramped conditions with poor sanitation. There are many forms of tuberculosis, such as one that infects the skin, or the brain but this master thesis limits itself to the most deadly and widespread variant, the one that attacks the lungs. Tuberculosis gets its name from the Latin tuberculum, which means small lump. The small lumps of the disease's namesake are markers of a progressed case of the disease, where small lumps or tubercule, appear inside the lungs of the patients. The culprit, a rod-shaped bacteria called mycobacterium tuberculosis are able to reproduce in these tubercule chambers. The tubercule themselves are caused by a 'misguided' attempt by the body's immune system to isolate the bacterium with a wall of white blood cells. Instead of killing the bacteria, these chambers give it the perfect

[1] John Green, "@johngreen," Twitter post, January 26, 2023, 5:46 PM UTC, https://twitter.com/johngreen/status/1618666687368404992.
[2] World Health Organization. "Tuberculosis." Fact sheet. Accessed October 27, 2023. https://www.who.int/news-room/fact-sheets/detail/tuberculosis.
[3] World Health Organization. "Tuberculosis." Fact sheet. Accessed October 27, 2023. https://www.who.int/news-room/fact-sheets/detail/tuberculosis.
[4] Helen Bynum, *Spitting Blood: The History of Tuberculosis* (New York: Oxford University Press, 2012), 5.
[5] Bynum, *Spitting Blood*, 6.

conditions to multiply and ultimately kill the patient by destroying the lungs.[6] The disease can take years, decades even to kill someone, a time often synonymous with suffering through bloody coughing, fevers and loss of appetite. In Norwegian a common name for the disease was "Tæring"[7], in English it is consumption, for the way the disease would consume the afflicted, physically and mentally over time. White plague is another word for the disease, with its unsavory white sputum being coughed up by many of the sufferers of the disease. Ptisis was what the Greeks called it, with a dozen other words for it across cultures.[8]

In the 19th century two forces would collide in dramatic fashion and fight over supremacy. One was disease itself. Typhoid, dengue, cholera, yellow fever and tuberculosis to name a few, which flourished as the industrial revolution matured across much of the globe. They were helped on by population growth, especially in the cities that through technological innovation could suddenly make use of labor in ways that was never before possible. The global population nearly doubled from an estimated one billion in 1804 to two billion in 1927. Cities in Europe and North America usually saw the most dramatic growth, with families from the countryside seeking better lives within the cities. This led to housing shortages, and challenges tied to keeping sanitary conditions acceptable with so many people living in growing urban ghettos. Here, disease could spring up and cause havoc in much the same ways it had in antiquity and medieval times in larger cities and hearts of empires, like the Justinian plague or the black death. The other force was human understanding of disease and their ability to combat it. For the first time in human history, at the advent of microbiology through the creation of Germ theory by men like Louis Pasteur, Robert Koch and many others would give societies the knowledge to understand how disease spread, and thereby make conscious design choices to limit the destructive power of communicable disease. This battle between man and microorganisms played out again and again over the 19th century. For cholera, that spread through contaminated water there would be made elaborate sewage systems to separate contaminated water from cleaner ground water.[9] For yellow fever and malaria, large drainage projects, such as the one that made it possible for the Americans to complete the Panama Canal in the 20th century by taking away the breeding

[6] Bynum, *Spitting Blood*, xvii.
[7] Dag Skogheim, *Tæring* (Gjøvik: Tiden Norsk Forlag, 2001), 7.
[8] Skogheim, *Tæring*, 7.
[9] Marte Dæhlen, "Tuberculosis and cholera gave us sewage systems and posters against spitting. What will the coronavirus leave us with?" Science Norway, January 25, 2021, https://www.sciencenorway.no/bacteria-covid19-disease/tuberculosis-and-cholera-gave-us-sewage-systems-and-posters-against-spitting-what-will-the-coronavirus-leave-us-with/1802456.

grounds of the disease bearing mosquitoes that was killing off the canal project's workforce in droves.[10] When sporadic outbreaks of black plague became a major health concern in San Francisco at the turn of the 20th century, one of the health authority responses was to issue new housing codes, which required buildings to be built on a cement base to make it harder for rodents to enter homes. Separating the rats that carried plague bearing ticks from people became an effective method to use engineering to ward off the disease.[11] Tuberculosis, unlike these other threats to public health appeared to elude such straightforward solutions. When Robert Koch discovered the tubercule bacteria in 1882 it became a priority among scientists to find a way to contain this growing threat.[12] One of the great obstacles with combating tuberculosis is the fact that it didn't require an external vector as humans could carry the bacteria in a latent form for all their lives, with variations of severity for those who developed active tuberculosis. It spread more easily in poorly ventilated environments, which is where humans began to spend the majority of their time when people moved off the farms and into factories and classrooms. To deal with this problem, radical new ideas about the role of the community and the state in healthcare took shape. Tuberculosis was one of the primary drivers of public health initiatives at the turn of the 20th century, because to stop its spread and destruction was an immense task that required continuous effort to maintain. This is mainly why Tuberculosis history is such an interesting subject to study, because it motivated society into action in ways other diseases never had and forced people to remain engaged long after the sewage system, cement foundations and the swamps were drained. It also changed culture, fashion and migration patterns to name just a few things.[13] The history of tuberculosis in the Norwegian context has been explored and studied several times before, with papers and books covering the history of tuberculosis in Norway, often through exploring a certain period or a regional area, or a focus to a change in strategy and actors. The year 1900 marks a turning point in Norwegian tuberculosis history as the Norwegian government passed legislation that obligated it to do something with the tuberculosis health crisis. Much has been written about tuberculosis care in the period from 1900 to 1940, when the majority of the pioneering and infrastructure work took place.[14] The 1950s also marks a

[10] "The Panama Canal," Centers for Disease Control and Prevention, last reviewed September 15, 2015, https://www.cdc.gov/malaria/about/history/panama_canal.html.
[11] Guenter B. Risse, *Plague, Fear, and Politics in San Francisco's Chinatown* (Baltimore: The Johns Hopkins University Press, 2012), 257.
[12] Bynum, *Spitting Blood*, 95.
[13] Bynum, *Spitting Blood*, 134, 81-90.
[14] Teemu Sakari Ryymin, *Smitte, språk og kultur: Tuberkulosearbeidet i Finnmark* (Oslo: Scandinavian Academic Press, 2009), 9.

turning point as effective drugs to treat tuberculosis began to become more readily available in Norway.[15] This thesis aims to contribute to this field of study by filling in a gap in the story by examining the years 1940 to 1945 and seeing what impact the second world war had for tuberculosis care in Norway, as it faced a national crisis of a magnitude the country had never experienced before. At the onset, the idea that tuberculosis care would be largely unaffected by the Nazi occupation seemed unlikely to me, despite it being a chapter often overlooked in the context of tuberculosis care. Others who've written about second world war healthcare, remark how it was one of the few health concerns that didn't worsen in Norway during the war[16], and that perhaps helps to explain why it isn't looked at in great detail. Statistics do show that the death rate from tuberculosis continued on a positive trend, which then begs the question: how did tuberculosis care manage to succeed under wartime conditions? By analyzing this period of tuberculosis care more broadly, it seeks to capture the different aspects that changed during the war, both the good and bad factors to understand not only how it adapted and changed, but also to understand its resilience and success despite the challenges.

Structure

This thesis is structured in eight parts. The first chapter gives a quick review of tuberculosis, the existing research and methodology as well as what sources have been examined to come to the thesis' findings. The second chapter looks at the development of the Norwegian tuberculosis healthcare system, its humble beginnings from the turn of the 19th century. The third chapter examines the year 1940 and what the state of the tuberculosis healthcare system looked at the onset of the invasion of Norway, it also looks in detail at the spring war campaign of 1940 and the immediate effects that had on the healthcare sector. 1940 is separate because the events have a different nature than the following four years, in that it is marked more by the initial shock of being an invaded people and the damages and disruptions to the healthcare system because of the invasion. The fourth chapter delves into leadership changes and a restructure of the health department and the motivations and personalities of the central figures that would come into positions of power as a result of Norway's occupation. It also looks at Nazism and tuberculosis healthcare, to understand the ideological motivations of the occupiers and how they wanted to see the Norwegian healthcare system

[15] Anne Marie Seiersten and Eva Olaug Nørstebø, *Ikke Bare Glitter på Glittre* (Dokka: LHL, 2002), 11.
[16] Ryymin, *Smitte, språk og kultur, 10.*

change to better align their own healthcare system in Germany. The fifth chapter looks at the challenges that the tuberculosis healthcare system faced during the five years of occupation, such as requisitions of medical facilities by the German military, destruction caused as a result of the war, disease outbreaks putting a strain on the facilities intended to treat tuberculosis and problems with resource shortages. BCG vaccination is also brought up in this chapter as it did not fit neatly elsewhere. The sixth chapter looks at the potential upsides that took place during the war in tuberculosis healthcare. Norwegian authorities being able to take advantage of German medical and technical expertise to collaborate on the shared goal of combating the spread of tuberculosis is one example. It also looks at the reforms and policies the Norwegian government would keep after the war. The seventh chapter is about tuberculosis patients trying to organize for their interests and how they came to be at odds with the collaborationist regime who had different plans. It also looks at how the persecuted Jewish minority along with healthcare workers used the German fear of tuberculosis to escape deportation and extermination by hiding at the sanatoriums, often with a falsified diagnosis. The eighth and final chapter is a summary conclusion of this thesis' findings.

Existing Research

Teemu Sakari Ryymin has written about tuberculosis prevention measures in Northern Norway in the province of Finnmark in the article Forebygging av turberkulose *I Finnmark 1900-1960* There is an emphasis on what makes Finnmark different from the other provinces of Norway, such as geographical distances and the ethnic and multilingual makeup of the local population that distinguishes it from the rest of Norway. He writes about the period in time where efforts to stop the spread of tuberculosis went hand in hand with a national concern over provincial integrity and the sense that the multi-ethnic population needed to be assimilated. He has also written a book titled: *Smitte, språk og Kultur Tuberkulosearbeidet i Finnmark*[17] which looks at many of the same things but also the development of the national tuberculosis healthcare system and how different interests and ideas about how to combat the disease clashed, particularly in the context of Finnmark's struggle with the disease. Because tuberculosis had no effective cure, a multitude of strategies to lessen the spread and treating and caring for the ill were vigorously debated among Norwegian physicians on how best to use their resources to ultimately 'win' against tuberculosis. The book, *feberens ville rose: tre*

[17] Teemu Sakari Ryymin, *Smitte, språk og kultur: Tuberkulosearbeidet i Finnmark* (Oslo: Scandinavian Academic Press, 2009).

omsorgsystemer i turberkulosearbeider 1900-1960[18], written by Ida Blom, a Norwegian historian and professor at the university of Bergen. In the book she writes about her insights into the ways society mobilized against the growing threat of the Tuberculosis. She divides the tuberculosis healthcare system into four ways, that being the private, the informal, the charitable and the public. The book does not spend enough time on the war and conditions under it, but rather on the structural changes that occurred in the decades prior and the relationship between the charitable organizations and the state. *Tæring*[19] from 1988 is a book written by Dag Skogheim, the book is a memoir of his experiences of being diagnosed and brought into the tuberculosis healthcare system during the second world war. He wrote a second book two years later, called*: Tæring Historia om ein folkesjukdom* with Jan Karlsen in 1990. The book is about the history of tuberculosis in Norway and it gives special focus to people with personal experiences with the disease. The book devotes considerable space to interviews with nurses, patients, doctors who worked or were cared for in the different institutions. Dag Skogheim is also the author of *Sanatorieliv*[20], which is the third book, and the one that devotes most time on the history of tuberculosis in Norway's sanatoriums, how they came to be and what the reasons were to construct such a system in Norway. It also contains information about his own journey in trying to get to grips with what he experienced in the sanatorium system from the mid 40's to 1954. There is also his book on the patient interest organization Landsforeningen for hjerte og lungesyke gjennom 50 år[21], which can trace its early beginnings in 1943 and thus is very relevant for this thesis. The book is called Gå foran, Vis vei! and is a detailed history of the organization. Skogheim was in many ways one of Norway's greatest authorities on the history of tuberculosis, and these were some of the works he has written on the subject, with three being valuable resources for this thesis.

Aina Schiøtz i bind 2 Folkets helse – landets styrke 1850-2003[22] is the second part of Schøitz's study of healthcare in Norway through centuries of history. It is a good companion book but because it tries to cover most of the healthcare development that occurred in a wide span of time, at the cost of giving very detailed accounts of any one topic.

---

[18] Ida Blom, *Feberens ville rose. Tre omsorgssystemer i tuberkulosearbeidet 1900-1960* (Bergen-Sandviken: Fagbokforlaget, 1998).
[19] Dag Skogheim, *Tæring* (Oslo: Tiden Norsk Forlag, 1988).
[20] Dag Skogheim, *Sanatorieliv. Fra tuberkulosens kulturhistorie* (Oslo: Tiden Norsk Forlag, 2001).
[21] Dag Skogheim, *Gå foran, vis vei! Landsforeningen for hjerte og lungesyke gjennom 50 år* (Oslo: Scanbok Forlag, 1993).
[22] Aina Schiøtz, *Folkets helse – landets styrke 1850-2003* (Oslo: Universitetsforlaget, 2003).

Julie Backer worked in Norway's central bureau of statistics (Statistisk sentralbyrå) for many years and in 1936 she became bureau chief i SSB and two years leader she earned her phd in statistics on mortality rates. She also wrote annual reports for SSB on the state of national healthcare. Her reports from the war years 1940 to 1945 in the Sunnhetstilstanden og medisinalforholdene (state of health and medicine) are of particular interest to this master's thesis. *Ikke bare glitter på glittre*[23] is a collection of interviews done by Anne Marie Seiersten with patients and staff at Glittre sanatorium, one of the country's largest sanatoriums. Glittre is the sanatorium I've devoted the most time studying in the archives so this collection has helped me flesh out the parts about patient experiences, as well as healthcare staff and other employees at sanatoriums. It does well to capture life during the war years, but it should be noted that some of the patients weren't patients of Glittre but of other sanatoriums and tuberkulosehjem across the country. Kåre Olsen's 2022 book *Jødene som ble innlagt i sykehus for å unngå deportasjon*[24] is an in depth look at how Jewish men and women sought refuge in the Norwegian healthcare system during the attempts by German authorities, using Norwegian police forces to gather them up for eventual deportation to extermination camps. The book documents all Jewish people who avoided the authorities that sought to deport them to Nazi Germany by being admitted to either hospitals or sanatoriums, often under false pretenses and how the majority of them either absconded one morning and made it to safety in Sweden or remained hidden in the sanatoriums for the remainder of the war. Two of the relevant accounts of how two Jewish men escaped the holocaust are written about in this thesis. Anders Christian Gogstad has written two books on the topic, which are called *Helse og hakekors: helsetjeneste og helse under okkupasjonsstyret i Norge 1940-45*[25] and *Slange og sverd: hjemmefront og utefront: leger og helsetjenester 1940-1945.*[26] The books pair as a comprehensive look Norwegian healthcare during the war. The first gives a detailed account of the healthcare services under Nazi occupation, with everything from power dynamics between the occupiers and collaborators, to structural changes in the healthcare sector through the war years. The second focuses more on the healthcare provided by and for the government in exile, in London, but also the resistance movement and its ties to doctors and nurses in Norway and Sweden. Ole Berg has written a lot on the subject of healthcare

[23] Anne Marie Seiersten and Eva Olaug Nørstebø, *Ikke Bare Glitter på Glittre* (Dokka: LHL, 2002).
[24]Kåre Olsen, *Jødene som ble innlagt i sykehus for å unngå deportasjon* (Oslo: Michael, 2022).
[25] Anders Christian Gogstad, *Helse og Hakekors. Helsetjeneste og helse under okkupasjonsstyret i Norge 1940-45* (Bergen: Alma mater forlag AS, 1991).
[26]Anders Christian Gogstad, *Slange og Sverd. Hjemmefront og utefront leger og helsetjenester 1940-1945* (Bergen: Alma mater forlag AS, 1995).

administration and his work on the historical changes of the healthcare bureaucracy, with his state funded report from 2009, "Spesialisering og Profesjonalisering: En Beretning om Den Sivile Norske Helseforvaltningens Utvikling fra 1809 til 2009, Del 1: 1809-1983 – Den Gamle Helseforvaltning.[27] Dedicating a portion to looking at the conflicts between reformers and those who wanted to keep the status quo in the Norwegian health department, and how the war helped the reformers achieve their goals after the war due to the structural changes put in place by the collaborationist regime. Other former master students have also written about tuberculosis as a topic in their master thesis, these are Terje Andreassens' *Legene og tuberkuloseloven. Faser og forutsetninger for tuberkuloseloven av 1900,* which explores in detail the creation of the first national law specifically targeting tuberculosis. Tor Harald Otterholt *Folkeopplysning og bakteriologi. Opplysningsprosjektene om folkehelse til Norske Kvinners Sanitetsforening og Nasjonalforening mot tuberkulosen i første halvdel av 1900-tallet*[28] wrote his master's thesis on the public information campaigns to raise public awareness on the dangers of tuberculosis at the turn of the century, initialized by different Norwegian philanthropic associations. Sigrid Onsgaard Sagabråten's *Kampen mot tuberkulosen i det lavendemiske området Hallingdal*[29] *- En analyse av initiativ og aktivitet i foreningen "Samhold" og frimerkeforretningen Tubfrim i Nesbyen* does a good job of exploring local history, specifically how charitable fundraising changed and developed in creative ways to be able to fund the growing responsibilities the public, be it the charitable organizations or the local government were taking to deal with the problem of tuberculosis healthcare. Its focus is on an area of the country that had comparatively low numbers of tuberculosis, which made it interesting to compare with the findings of the Andreas Gaard's master thesis, Kampen mot tuberkulose i Rogaland 1900-1940[30] which studies tuberculosis in the region of Rogaland which experienced a higher case rate.

[27] Ole Berg, "Spesialisering og Profesjonalisering: En Beretning om Den Sivile Norske Helseforvaltningens Utvikling fra 1809 til 2009, Del 1: 1809-1983 – Den Gamle Helseforvaltning" (Report from Helsetilsynet, 8/2009, October 2009.

[28] Tor Harald Otterholt, "Folkeopplysning og bakteriologi: Opplysningsprosjektene om folkehelse til Norske Kvinners Sanitetsforening og Nasjonalforeningen mot tuberkulosen i første halvdel av 1900-tallet" master's thesis, IAKH, Universitetet i Oslo, May 15, 2015).

[29] Sigrid Onsgaard Sagabråten, "Kampen mot tuberkulosen i det lavendemiske området Hallingdal - En analyse av initiativ og aktivitet i foreningen 'Samhold' og frimerkeforretningen Tubfrim i Nesbyen" (master's thesis, IAKH, Universitetet I Oslo, Spring 2022).

[30] Andreas Gaard, "Kampen mot tuberkulose i Rogaland 1900-1940″ (Master thesis, DET HUMANISTISKE FAKULTET, University of Stavanger, Spring 2016).

Sources, methodology and limitations

This thesis is based largely on secondary sources, and this study assembles in one narrative the trajectory of the tuberculosis care provision in Norway during the years of the Nazi occupation. It further examines some of the initiatives taken in this period in detail, based on original archival research. One of the challenges has been that many of the sanatoriums and smaller health facilities have their archival documents stored elsewhere around the country and so I could not access them from Oslo, and would have had to travel to other cities to accomplish this. Another problem emerged with difficulty getting permission to view some of the archival materials, as there have been confidentiality restrictions on some of the material. Fortunately, a few of the larger sanatoriums near the capital did have their archival material stored at the national archives in Oslo, with correspondence from and to being available. Glittre is the sanatorium that has occupied most of my time. It was the country's largest state sanatorium and its importance grew during the war because the man the collaborationist regime put in charge of national tuberculosis healthcare policy through the health department became director there in 1941 as the former director retired. I have also looked at a number of newspapers and some German sources, with the help of translation tools for the German. A collection of interviews done and written in book form, *ikke bare glitter på glittre*[31] has also been examined, containing first-hand account from tuberculosis patients and two employees of the sanatorium, though these are interviews conducted decades after the war, so some things may be misremembered by the interview subjects and so I have been careful of which claims I pick, and examine them with some scrutiny based on archival findings. Further archival research has been done with the central x-ray office established during the war, found at the Norwegian national archives in Oslo. Internal reports, memos, journals, letters, and directives have also been examined from the archival material found there. Lastly of note, the government health and medical reports have proven invaluable as they give detailed accounts, though do warn the reader that some of the statistics on the mortality and disease rate might be incorrect after 1941 as the war made collecting such data more difficult.[32] Another concern with the reports were that they had been influenced by the collaborationist regime, to construct a more favorable narrative of the occupation but no evidence of this has

[31] Anne Marie Seiersten and Eva Olaug Nørstebø, *Ikke Bare Glitter på Glittre* (Dokka: LHL, 2002).
[32] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*(Oslo: Kommisjon hos H. Aschehoug & Co., 1948), Forord, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

been found, and only the report from 1940 was actually published during the war, with the rest being published from 1946-1949.

Because the research question is, how did the tuberculosis healthcare system transform during the war it has been important to try to factor in the changes that affected the quality and nature of the care. Second it attempts to understand why it changed as it did. It will examine new power dynamics as well as ideological principles juxtaposed to previously dominating ones that were now able to shape policy as the others were undermined by the new regime. The thesis' only focuses on pneumonic tuberculosis healthcare, and it tries to capture every aspect of the healthcare system that underwent meaningful change during the occupation period from 9th of April 1940 to the 8th of May 1945. It does look a bit beyond that, as a means to put the period into context. An interesting challenge the thesis' encountered has been because it is written in English, with all source material in either Norwegian or German, a lot of work has had to be put into ensuring the translations are done as close to the source material as possible. Not all words or phrases had a satisfactory English translation, or it did not seem natural to translate them so those have been kept in Norwegian, with a citation to the meaning intended behind the word or its definition. Other related subject matter this thesis does not explore as it relates to the tuberculosis healthcare system in Norway from 1940-1945 is the 400,000 Wehrmacht soldiers, or the accompanying healthcare given to German citizens, that was separate from the Norwegian one. It also does not explore the approximately 100,000 prisoners of war who were used as slave labor in Norway by Nazi Germany during the war.

Chapter two

The creation of a Norwegian tuberculosis healthcare system

This chapter will be exploring the creation of the modern Norwegian healthcare system during the late 19th to early 20th century leading up to the 2nd world war. It will show how two organizations, namely the Kvinners Sanitetsforening[33] and Nasjonalforeningen mot tuberkulose[34] would come to pioneer and lay the groundwork for public health initiatives, as well as the legal foundations that came at the passing of the Norwegian national tuberculosis law of 1900. Before delving into this though, an important distinction has to be made about what exactly is meant by 'the tuberculosis healthcare system'. In government reports from the bureau of central statistics from the early 1900s the healthcare system devoted only to tuberculosis is counted separate from the regular medical infrastructure, as it was expansive enough to warrant its own category, much in the same way psychiatric care is. The 'system' however is not one large centrally controlled state organism, but rather a loose collection of private, public and charitable interest groups and organizations working to stop the spread of tuberculosis, treat the sick and give social aid to the survivors. A hospital with a tuberculosis ward is part of this system, in much the same way an organization that runs an orphanage intended to shield children from their tuberculosis sick parents, or the large state sanatoriums that would play a prominent role by 1940. This is why, when 'system' is mentioned, it can mean any cog in the machine that was the decentralized effort to combat tuberculosis.

Tuberculosis in Norway

During the immense industrial, technological and urban progress of the 19th century, Tuberculosis became a major global killer, and Norway was no exception.[35] To understand why, we must look to demographics, geography and living standards. Firstly, despite large numbers of Norwegian migrants to countries like the United States, we still see a near tripling of the population in the span of a century. From 800,000 in 1800 to 2.2 million in 1900.[36] The

[33] Norske Kvinners sanitetsforening (NKS) (Norwegian Women's medic/healthcare association)
[34] nasjonalforeningen mot tuberkulose (National Association against Tuberculosis)
[35] Bynum, *Spitting Blood*, 111.
[36] Geir Thorsnæs, "Norge – befolkningsutvikling," Store norske leksikon, accessed August 2023, https://snl.no/Norge_-_befolkningsutvikling.

lack of good fertile soil and limited economic opportunities meant that the unemployment was high. A great global migration away from farms and the countryside into cities was also taking place. Population growth coupled with urbanization put extreme pressure on housing, which led to a chronic shortage. People lived in cramped conditions in poorly ventilated homes, a perfect breeding ground for tuberculosis and other diseases to take hold, as it was far more capable spreading indoors where the wind would not blow the contagious droplets away.[37] The disease was most prevalent in the southwest of the country in the 1880s and crept northward during the 1900-1920s before it began to decline nationally everywhere.[38]

From romanticized to stigmatized

The cultural shift from romanticizing tuberculosis to stigmatizing unfolded gradually across the western world, including Norway. During the 18th and 19th centuries, tuberculosis was often looked at as a "romantic disease", believed to be an affliction more prone to develop in delicate and sensitive individuals, such as artists and young women.[39] This perception began to wane as germ theory gained traction.[40] When the realization that tuberculosis was contagious, people began to consider the danger associated with the infected. When the natural biological explanation came to replace the will of God, so too did the myth of an artist's disease. Instead, it was to be identified as yet another poverty related disease, with all the stigma associated with that. The way this information was shared with the greater public outside of the medical and science community was through series of effective public health campaigns, carried out by highly motivated and well-organized groups that warned the public about the dangers of tuberculosis. These campaigns occurred in most developed nations, with the Norwegians referring to a widely printed and distributed "tuberculosis poster" drawn up by the nation's leading doctors on tuberculosis in 1889.[41] The poster included sanitary advice from the context of the ideas stemming from germ theory, and was made to spread awareness about tuberculosis. Although it, and measures like it were well intentioned, they did contribute to an increased stigmatization and alienated of the tuberculosis afflicted in society. Sanatoriums, initially designed to give sufferers of tuberculosis a place to rest and get

[37] Skogheim, *Gå foran, vis vei!*, 9.
[38] Blom, *Feberens ville rose*, 10-13.
[39] Bynum, *Spitting Blood*, 77.
[40] Bynum, *Spitting Blood*, 99-101.
[41] Ryymin, *Smitte, språk og kultur,* 37.

treatment, also changed character by the turn of the 20th century. It went from a place of rest and recovery to also a place where the infected would be separated from others, such as their families as a measure by the medical community to help stop the spread. Many countries implemented laws that sought to regulate the movement and monitor sufferers of tuberculosis, further increasing the sense 'consumptives' felt ostracized by the rest of society.[42]

National tuberculosis law of 1900

Across the industrialized world, there was a growing call to address about the escalating threat of tuberculosis, which by the turn of the 20th century had become a serious health crisis in those countries. Millions died every year, and millions more were left in a state of chronic illness, where they were laid up for months or years, becoming burdens to their families and society, while also contributing to the disease's spread. In response, many countries developed legal frameworks to combat tuberculosis, the frameworks being formulated through collaborations among doctors, lawyers and politicians. New York started drafting a law as early as 1889, with fully formed version by 1894, and other large cities followed.[43] Germany laid out its first comprehensive program by the turn of the century on a region by region basis, whilst Norway earns the distinction of implementing the first national law, encompassing an entire country's strategy to fight the disease, rather than municipal or province wide efforts.[44] The Norwegian healthcare system had already began to recognize the importance of being able to bring state resources and power in combatting disease, as well as monitoring its development whenever an epidemic or outbreak occurred.[45]

Norway had previously dealt with another infectious disease requiring long-term, namely leprosy which was endemic along its western coastal communities in the 19th century. In 1873 the Norwegian physician Gerhard Armauer Hansen discovered the cause of leprosy when he identified the bacterium mycobacterium leprae.[46] This connection between leprosy and a specific bacterium predated Robert Koch's own discovery of the tuberculosis

[42] Skogheim, *Gå foran, vis vei!*, 22-23.
[43] Bynum, *Spitting Blood*, 122.
[44] Gaard, "Kampen mot tuberkulose i Rogaland," 2016, 10.
[45] Ryymin, *Smitte, språk og kultur,* 33-35.
[46] Ryymin. *Smitte, Språk og kultur*: 27-28

mycobacterium by eight years. In Bergen, a city on Norway's western coast, those afflicted with lepra had been gathered up at a hospital called St. Jørgen, a practice dating back to the mid 1500s.[47] As Leprae cases declined and tuberculosis cases were rising, calls to respond to tuberculosis in a similar manner which Norway had done with leprosy was made by the medical community. Chief among these was Gerhard's brother, Klaus Hanssen who as early as 1887 called for national legislation to combat the spread of tuberculosis. He was met with majority opposition on the grounds that such a law would be too intrusive into people's private lives, and the monetary costs were also a concern. During the following years the medical community's understanding evolved, recognizing tuberculosis as an infectious disease rather than a hereditary one. [48] Klaus Hanssen suggested in a meeting among doctors in 1891 that, "Time has come, when consumption can and should occupy the leper hospitals which are vacant after leprosy."[49] By the 1890s the Norwegian government issued calls from leading experts to formulate a law so that the ever-growing health crisis could begin to be deal with and in 1900 a national law was passed. The law gave the medical community and health commissions that had existed since the mid 1800s certain powers and responsibilities to monitor tuberculosis and take action in accordance to the following law, with some paragraphs worth exploring. The first paragraph stipulated that the following paragraphs would only include those cases of tuberculosis considered contagious and a threat to public health. The second paragraph stipulates that a doctor has to report a case of infectious tuberculosis to the health commission in his district. The sixth paragraph, which was easily the most controversial, gave the health commission the right to force patients' admittance into the tuberculosis healthcare system if living conditions outside of it was not satisfactory. This ruling would be overturned if a spouse did not want their husband/wife admitted.[50]

Organizations and their importance

In Norway there were three national organizations that grew to prominence during the 1900-1940 period of tuberculosis healthcare expansion. These three earned a lot of recognition for their efforts in combating tuberculosis. While smaller provincial organizations existed

[47] Sankt Jørgens Hospital," Store norske leksikon, accessed 2023, https://snl.no/Sankt_J%C3%B8rgens_Hospital.
[48] Ryymin. *Smitte, Språk og kultur*, 28-29.
[49] Ryymin. *Smitte, Språk og kultur,* 29 Klaus Hanssen 1891.
[50] Norge. *Norges love: samling af gjældende love af praktisk betydning*. 1908. https://www.nb.no/items/URN:NBN:no-nb_digibok_2011011906049, 717-718.

alongside them as well, and contributed in the fight against tuberculosis also, the focus of will rest entirely on these three. The prevailing libertarian philosophies of limited government and free enterprise that many attributed to increased standards of wealth and technological development in the western world of the 19th century had called for restraint in the government's role in several avenues, like healthcare and welfare. Otterholt writes in his master's thesis about the formations of the different organizations, and the context in which they formed. Norske Kvinners Sanitetsforening was initially meant to be formed as a branch of the Red Cross by women.[51] On the 26th of February, 1896 in Kristiana (today's Oslo) Norske Kvinners Sanitetsforening was founded as an independent organization. The decision was driven by a few factors. A strong desire to establish a robust female-led organization, especially due to the growing momentum of progressive movements that began to demand more agency for women in public life, like the suffragette movement that wanted to grant women the vote. Proving women could take more responsibilities outside of the home, in areas it would seem natural for them to do so at the time was one way to prove to people that women should have a say, and a vote. Additionally, the political circumstances in Norway played a significant role. There was a strong and growing call for independence from Sweden, and the Norske Kvinners Sanitetsforening was very much a pro-independence organization that wanted to provide medical support for the Norwegian military in the event that a war broke out. In contrast, the red cross did not wish to appear to favor either one side as it was part of a larger international organization that prided itself on offering its services to those in need, regardless of nationality and loyalties.[52] The concept of mass organizations by socially conscious individuals was inspired by foreign movements happening at the same time, from the United States to Belgium, France, England and countries closer to home too.[53] In 1899 a German charitable women's organization, Fatherland's women's organization opened their first sanatorium in Germany, it held room for thirty-five female patients.[54] The Norwegian women's organization began their work the same year the German government began to finance the construction of public sanatoriums. It was also in Germany that the sanatorium system all Nordic countries modelled itself after was pioneered. Large sanatoriums would be built for those the doctors deemed had a fighting chance, whilst hospice type institutions were set up for those the prospects were bleak.[55] It was these latter

[51] Otterholt, "Folkeopplysning og bakteriologi," 2015, 15-16.
[52] Otterholt, "Folkeopplysning og bakteriologi," 2015, 16.
[53] Bynum, *Spitting Blood*, 131-132.
[54] Skogheim, Sanatorieliv, 104.
[55] Skogheim, *Sanatorieliv*, 105.

ones that Norway called Tuberkulosehjem.[56] A persistent debate between Norwegian doctors was in which way these tuberkulosehjem should be utilized, with a third category being built called helseheim which was sort of a bridge between the two, though in statistics they count as tuberkulosehjem. The debate was as one might have guessed if the tuberkulosehjem should exclusively take patients with little hope of recovery, or should they also attempt to provide treatment options? This question remained a significant point of contention within the medical field through the first half of the 20th century, up until effective antibiotics became readily accessible in Norway in the 1950s.[57] Long before that though, tuberculosis was a scourge that brought many organizations to mount considerable efforts to contain its spread and deal with the personal devastation it left in its wake. This report from 1907 captures the medical crisis happening across the nation's homes quite well, as it paints a bleak picture over the sanitary conditions surrounding the sick, and how those in poverty had little chance to effectively care for dying family members in their homes.

> Tuberculosis is and will continue to be the scourge of the district and has also continued its spread and ravages in 1906. The worst sources of infection are the old, slowly progressing cases. When such sick people, partly through illness and partly through old age, have become so weak and helpless that they cannot get out of bed or even crawl and groom themselves, they are left there, often neglected, always under inadequate and unskilled care as an enormous burden in the poor, cramped and often child-rich homes. They can live in this state for many years, but they do not have the strength to cleanly dispose of their sputum. The next of kin have the greatest reluctance to part with them more than absolutely necessary, even if, which is not always the case, they can be given some understanding of how extremely important observance of cleanliness is. You often see such old helpless consumptives getting their sputum on their fingers and smearing it over walls or beds. For the reasonable care of such a sick person, it is not possible in the poor homes to raise the necessary help. Everyone is busy with the struggle to keep out the worst calamities of poverty, and transporting such a helpless person to hospital also has its great difficulties.[58]

When Gaard discusses the creation of the earliest tuberculosis healthcare system in Rogaland, he emphasizes that legal frameworks and good intentions alone were insufficient to conquer the disease. [59] Building infrastructure required a significant amount of money, which the local government and the state invariably lacked or were reluctant to allocate to such large public health projects. In essence, the enactment of the 1900 law did not automatically shift the burden of caring for the sick from family homes and farms across Norway to the government, and it remained largely a theoretical framework, leading to scenarios where doctors doing

[56] Tuberkulosehjem (tuberculosis homes, hospice care type facility)
[57] Ryymin. *Smitte, Språk og kultur*, 233.
[58] Skogheim, *Sanatorieliv,* 157-158. Norwegian Medical report from 1906
[59] Gaard, "Kampen mot tuberkulose i Rogaland," 2016, 65-66.

house visits witnessed conditions such as those described above. This added to the frustration and tragedy as doctors knew that where one family member succumbed to tuberculosis, others were likely to follow due to the infection present in the home.

Norske kvinners Sanitetsforening and the Nasjonalforeningen takes on Tuberculosis

When Norway gained its independence in 1905 the focus for the women's organization shifted. Priorities turned to education of nurses, improving the general hygiene, carrying out information campaigns to inform the public, providing services for mothers and children and notably, combating tuberculosis. This 'branching' out was also significant before the union question with Sweden was settled, as even though most Norwegians were anti-unionist, it was seen as too radical and too inappropriate by many women to be associated with an organization so closely linked to the support of the military and the business of war, therefore the women's organization pivoted towards philanthropic social causes, with tuberculosis quickly becoming the main focus area in the first decade of the 20th century.[60] The organization experienced immense growth and recognition in the period 1900-1940 for all their philanthropic causes, but first and foremost was tuberculosis.[61]

The women's organization helped directly in educating nurses which were sorely needed at the turn of the century. With new insights into disease, yet with so few diseases actually treatable, preventing its spread took center stage for organizations like Norske Kvinners Sanitetsforening. Tuberculosis was increasingly perceived as a growing threat rather than a diminishing one like leprae and other diseases, thus becoming the primary focus of the organization in the first decade of the 20th century. Tuberculosis at that point affected all levels of society and most families had some relationship with the disease, some more tragic than others. One of the founders, and leader of the Norske Kvinners Sanitetsforening, Fredrikke Marie Qvam had herself experienced personal losses from the disease with four of her five children dying before she did, with three of them likely succumbing to tuberculosis.[62] The organization initially undertook smaller projects to improve the material condition of

[60] Otterholt, "Folkeopplysning og bakteriologi," 2015: 53.
[61] "Norske Kvinners Sanitetsforening 45 år," *Nordlandposten*, February 19, 1941.
[62] Otterholt, "Folkeopplysning og bakteriologi," 2015: 55.

sick and impoverished. These efforts would include things like gathering and distributing clothes, blankets and providing free milk for the tuberculosis sick.[63] Another driving force was its roots as a female-only organization, with women's health concerns at the forefront more so than in the other organizations. What happened to small children, if their mother came down with tuberculosis? Finding ways to shield these small children from the disease was one of the tasks that fell to the women's organization, which opened its first child care home, for tuberculosis threatened children in 1910. Children's summer camps were also established, meant to give kids a few months in an outdoors environment, to strengthen their immune system through healthy clean living.[64] The way Norske Kvinners Sanitetsforening financed their charitable projects was through fundraising methods that came from Denmark and Sweden. Selling Christmas stamps and little synthetic may flowers, respective. The may flower became a major source of revenue, and the Norske Kvinners Sanitetsforening expanded their operations to include tuberculosis homes to supplement the growing number of municipal and state run ones.[65]

Nasjonalforeningen was established later, in 1910 by some of the same doctors instrumental in influencing the 1900 law. They saw the efforts of the Norske Kvinners Sanitetsforening as progressing too slowly, and wanted to contribute by attempting to play a leading role. By this time Norske Kvinners Sanitetsforening had already built four tuberkulosehjem and in 1909 they opened their first 'folkesanatorium' in Oslo.[66] The criticism directed at the charitable organizations in the first decade of the 20th century mostly revolved around it being decentralized, and there being insufficient cooperation between the many small localized organizations. Nasjonalforeningen proposed that if these dispersed efforts to combat tuberculosis was brought in under one unifying umbrella organization, led by the country's foremost experts and authorities on tuberculosis healthcare, then perhaps they could succeed in this epidemiological battle.[67] Nasjonalforeningen's first leader was Klaus Hanssen who successfully aligned many of the smaller organizations under this umbrella. However, a notable exception was the Norske Kvinners Sanitetsforening, under Fredrikke Qvam's leadership who wished to retain her organization's independence.[68] This could partially be

[63] Gaard, "Kampen mot tuberkulose i Rogaland," 2016, 103.
[64] Blom, *Feberens ville rose*, 70-71.
[65] Blom, *Feberens ville rose*, 136.
[66] Ryymin. *Smitte, Språk og kultur*, 36.
[67] Ryymin. *Smitte, Språk og kultur*, 37.
[68] Ryymin. *Smitte, Språk og kultur*, 37.

understood by the fact that by 1910, Norske Kvinners Sanitetsforening was already at the forefront of combatting the social and hygienic problems related to tuberculosis. Another reason is the organization gave its female members agency in a time when women didn't yet have voting rights in Norway, therefore to relinquish control to a male dominated organization would defeat part of the purpose of the Norske Kvinners Sanitetsforening to exist in the first place. Throughout the 1910s, 1920s, and 1930s, both organizations engaged in similar social work, information campaigns and running of tuberculosis healthcare facilities. Ryymin notes how the emergence of such charitable organizations, driven by a collective will and optimism to combat tuberculosis was not unique to Norway. Such an organization as what Nasjonalforeningen was already existed by 1891 in France, in Great Britain in 1898. What's less common is the fact that the legal framework under which such organizations could operate existed before they began their work, not after.[69]

[69] Ryymin. *Smitte, Språk og kultur*, 37.

Chapter three

Norwegian tuberculosis healthcare in 1940

This chapter looks at the tuberculosis healthcare system in 1940 and the invasion that brought Norway into the second world war in the early spring of that year. A detailed review and analysis of the effects on tuberculosis healthcare and the problems that arose from the invasion and fighting that took place during that year is included at the end in this chapter.

The Norwegian tuberculosis healthcare system in 1940

By 1940, Norway had developed an extensive network of hospitals, sanatoriums, psychiatric institutions and facilities to care for tuberculosis sufferers. Of the institutions directly tied to the treatment of tuberculosis exclusively there were a total of seventeen sanatoriums and one hundred and sixteen tuberkulosehjem and helseheim[70].

Of these seventeen sanatoriums, five were directly controlled or owned by the government. The largest of the state run sanatoriums was Glittre sanatorium in Hakadal, with its 181 hospital beds, including a smaller "arbeidshjem" (workerhome) for patients recovered enough to work.[71] The others included Landskogen sanatorium in setesdal, with its 122 hospital beds, Reknes sanatorium in Molde, with its 136 hospital beds, Vensmoen sanatorium in Saltdal, with 155 hospital beds and Ringvål sanatorium in Leinstrand, with 151 hospital beds.[72] There were also a few that were run by local municipalities and eleven were privately run, often by the larger charitable organizations.[73] Looking only at the treatment offered to tuberculosis patients, they constituted the second largest group of patients the Norwegian healthcare system had to care for, with only the total number of psychiatric patients at the country's many mental asylums being higher. In 1939 and prior to the 9th of April invasion Norway had

[70] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940* (Oslo: Kommisjon hos H. Aschehoug & Co., 1943), 2, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[71] Seiersten and Nørstebø, *Ikke Bare Glitter på Glittre*, 19.
[72] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 70, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[73] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 10, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

a total of 5708 registered places designated for tuberculosis patients.[74] Additionally, there were 13770 hospital beds across all of Norway's hospitals, clinics and sick bays. A portion of these were also allocated for tuberculosis patients and it was not uncommon for a hospital to have a ward set off for such cases.[75] The official count of tuberculosis patients in regular hospitals was 567 beds across 19 hospitals, though the report also mentions that there was a considerable number of tuberculosis patients not counted in this tally as the beds weren't intended for tuberculosis care but used for it.[76]

The only category on a comparable scale as tuberculosis treatment at the time was the aforementioned psychiatric care, with its 6155 beds for the mentally ill, this number however, also includes a significant number of beds set aside for mental patients suffering from tuberculosis as well. Of those in psychiatric care, there was a substantial difference in the number of tuberculosis cases per psychiatric patient compared to the general population. Since conditions like schizophrenia had no effective method to treat the aggressive manifestations of the disease during that time, psychiatric patients could not be transferred to sanatoriums for treatment of their tuberculosis once it was discovered they had it, as many were simply too restless or dangerous to be put in the care of lung specialists and nurses at sanatoriums. Consequently, these patients were left with no other alternative than to remain at the asylum where they could infect other patients, in the often crowded poorly ventilated facilities.[77] One fourth of patients in psychiatric care died of tuberculosis, and mortality was seven times higher for men, and thirteen times higher for women than for the general population.[78] This statistic falls in line with the notion that tuberculosis spreads more easily indoors than outdoors were fresh air and sunlight made it difficult for the bacterium to spread between people, let alone survive.

This shows that more or less the entirety of the healthcare system was dealing with the consequences of tuberculosis on some level. Looking at the mortality rate and causes from statistics in the annual reports from the Norwegian Central Bureau of Statistics, it is evident

[74] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 3, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[75] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 3, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[76] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 2, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[77] Gaard, "Kampen mot tuberkulose i Rogaland," 2016, 58.
[78] Gaard, "Kampen mot tuberkulose i Rogaland," 2016, 58.

that tuberculosis, despite a steady decline from 1900 to 1940[79] was responsible for a large number of fatalities among the Norwegian population. In statistics from 1936-1940, it shows that those Norwegians who died of disease, 10% of men and 8.7% of women died of causes directly related to tuberculosis.[80] This number is very misleading however, as only 1% of those aged 70 and over died of it, meanwhile in the age range of 20-30, over half of those who died in that age-range died of complications related to tuberculosis. In the other end, it only drops below 10% of deaths by disease for those under four years old. These statistics show that the disease is on a downward trend by 1940 but that tuberculosis was still a leading cause of premature death for people in the prime of their life.

The looming war

The situation in Europe in the 1930s had grown precarious. Financial instability, fascist, communist and national socialist regimes were challenging liberal democracies for hegemony over the continent. Norway, which had avoided the first world war with a strong neutrality stance sought to replicate this strategy in the event of another great war breaking out over the continent. Unlike Switzerland which also sought to remain neutral by making itself as difficult to invade as possible by building impenetrable mountain fortifications; Norway on the other hand opted for the opposite approach. The Norwegian government implemented a strategy of trying to appear as non-threatening as possible, with a very limited military budget. Norway would instead be relying on its relative geographic isolation on the Scandinavian peninsula and its rugged terrain to discourage anyone from invading with its many mountains and isolated fjords that would in theory make it difficult for any would-be invader to attack and hold the entire territory. Norwegian policymakers also sought to have amicable diplomatic relations with both Nazi Germany and Great Britain. In pursuing this policy of 'true neutrality' they took a significant gamble, believing their efforts would be sufficient enough to dissuade anyone from invading, a belief that as we know would prove to be tragically misguided.[81]

---

[79] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 26, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[80] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 24-26, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[81] Jacob Børresen, "Norges forsvar under andre verdenskrig," Store norske leksikon, accessed September 10, 2023, https://snl.no/Norges_forsvar_under_andre_verdenskrig.

On September 1st, 1939 the second world war broke out in Europe as Nazi Germany invaded its neighbor Poland, with France and Britain declaring war on Germany in response. After Poland was subsequently invaded by the Soviet Union from the east on September 17th, its ability to resist the German Wehrmacht was lost by early October. On the western front a very muted period began, dubbed the 'phony war'. Both sides seemed hesitant to launch any major offensives, looking instead for ways to sabotage each other's ability to wage war on the periphery. One such periphery was Norway's strategic port of Narvik that supplied Germany with iron ore from Sweden, a critical resource in arms production. Britain and France wanted to cut Germany off from this trade, whilst Germany in turn wanted to secure it.[82]

All three major powers began to create invasion plans of Norway, the British under the guise of assisting the Finnish, which were invaded by the Soviet Union on the 30th of November, 1939 and was pleading for assistance by the then, quickly deteriorating international community. When the war between Finland and the USSR concluded in March of the following year, the British and French plans were shelved. The Germans in contrast, were just adding finishing touches to their invasion plan, codenamed "Operation Weserübung" that would see the Germans fully occupy both Denmark and Norway.

The invasion

The invasion took place in the early hours of April 9th, 1940 when German ships attempted to sneakily sail into Norwegian ports, an action that happened in conjunction with the invasion of Denmark, whose people would wake up to find themselves occupied in less than 6 hours. The invasion of Norway, being further away with only sea access and less hospitable terrain for invaders would not go off without a hitch. The warship blucher was sunk at the mouth of the Oslofjord at Oscarsborg fortress, delaying the German invasion of Oslo by several hours.[83] This delay gave the government and the royal family enough time to leave the capital. The Germans would gain footholds in Norway, and take Oslo later that day, and due to a lack of Norwegian mobilization preparedness they met limited resistance. Norway, with

[82] Olav Njølstad, "Hvorfor angrep Hitler Norge?," Norgeshistorie, November 25, 2015, last modified October 21, 2020, https://www.norgeshistorie.no/andre-verdenskrig/1723-hvorfor-angrep-hitler-norge.html.
[83] Olav Njølstad, "Overfallet," Norgeshistorie, November 25, 2015, last modified October 21, 2020, https://www.norgeshistorie.no/andre-verdenskrig/1712-overfallet.html.

the help of the allies would later mount more meaningful resistance across the parts of Norway the Germans had yet to take, particularly in the North. This development came too late for the Norwegians to stop the invading force from capturing all the largest cities of the country, that were occupied on April 9th. By early May, the southern half of Norway was lost and by June the Germans would control the entire country, but without a formal surrender as the King and the cabinet would go into exile in England.[84]

The invasion and its effects on the healthcare system in 1940

In the days preceding the April 9th invasion, sanatoriums received warnings to stock up on supplies due to the deteriorating war situation. This suggests that some within the Norwegian government foresaw the increased likelihood of Norway being swept up in the European mainland war. An example of this foresight is a letter from the chief physician at Glittre Sanatorium to the Ministry of Social Affairs, dated April 8th, 1940, a day before the invasion, expressing a dire need for emergency lighting.[85] Archival material indicates that, despite occasional memos like the one on lighting, the Norwegian healthcare authorities were largely unprepared for an invasion scenario.[86] This aligns with the well-documented fact that the Norwegian military was also caught woefully unprepared and surprised by the invasion.[87] During the initial shock of realizing the country was at war, some healthcare facilities issued general evacuations of patients and staff. Others tried to maintain a business-as-usual approach, while some found their services requisitioned by both Norwegian and German military forces needing to treat wounded soldiers. Infrastructure was also destroyed or damaged in aerial bombings or fires during the chaotic 1940 Norwegian war campaign. The Bureau of Statistics report on health conditions in 1940, published in 1943, provides an accurate account of the challenges faced by the Norwegian healthcare system that year. To assist other academics, this text includes every instance of tuberculosis-related healthcare

[84] Olav Njølstad, "Kupp, forhandlinger og nyordning," Norgeshistorie, November 25, 2015, last modified October 21, 2020, https://www.norgeshistorie.no/andre-verdenskrig/1713-kupp-forhandlinger-og-nyordning.html.
[85] National Archives of Norway, RA/S-2333/D/L0136 - Glittre sanatorium. Korrespondanse vedr. forskjellige saker.
[86] National Archives of Norway, RA/S-2333/D/L0136 - Glittre sanatorium. Korrespondanse vedr. forskjellige saker.
[87] Gogstad. *Helse og Hakekors*, 25.

being affected, presented on a region-by-region basis as in the report. For further analysis, refer to the end of the chapter.

Effects on tuberculosis healthcare in 1940, by region

Oslo

The capital was captured on the day of the invasion. Fortunately for the Norwegians, the Germans were delayed in their efforts by the sinking of the Blücher, allowing the government and royal family to escape by train to the interior in the North.[88] By 16:00, Oslo experienced its first taste of war, as German planes dropped bombs from the upper-class neighborhoods just south of Vigelandsparken to Tåsen school, near Sognsvann.[89] By the evening, the city was secured by the Germans, and on the 10th of April, hospitals began to fill with wounded German soldiers, alongside wounded civilians and Norwegian military personnel.[90]

Akershus

In Akershus province, the German Wehrmacht requisitioned Akers Hospital, and all its patients were initially moved to a nearby hospital, before being transferred to Berg School, which had been converted into a makeshift civilian hospital with 250 beds. However, during this transition, only 20 of these beds were allocated to tuberculosis patients. According to reports, this resulted in many patients deemed well enough being discharged.[91]

Hedmark

Hedmark province saw some of the early fighting of the invasion, the local hospital in Hamar effectively became a war hospital, treating wounded Norwegian soldiers. When the German Wehrmacht took control of the city, the hospital was repurposed as a surgical clinic for German soldiers. At the end of the campaign, as the need decreased, the Germans negotiated

[88] Olav Njølstad, "Overfallet," Norgeshistorie, November 25, 2015, last modified October 21, 2020, https://www.norgeshistorie.no/andre-verdenskrig/1712-overfallet.html.
[89] Gogstad. *Helse og Hakekors*, 75
[90] Gogstad. *Helse og Hakekors*, 76
[91] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

with local authorities to allocate 35 of the hospital's 88 beds for their soldiers as required. [92] Additionally, in the province at Tynset Hospital, located approximately 165km north of Hamar, the administrator began to slowly discharge tuberculosis patients to make room for 'surgical' patients.[93] From October 1940, the tuberculosis ward at Tynset Hospital was permanently closed.[94] Several other hospitals in the province, such as Løten Hospital and Tolga and Os Hospital, were partially transitioned to accommodate wounded soldiers. These facilities were reverted to full civilian use after the war months by the summer of 1940.[95] The Red Cross Hospital in Kongsvinger was prepared from April 14th to May 1st to take on wounded soldiers from both sides before returning to public civilian service.[96] In Hedmark was also the small Sør-Odal Hospital, which during the fighting treated Germans, Norwegians, and Swedish volunteer soldiers. Given its proximity to the fighting and having a surgical staff since the mid-1930s, it too had to suspend civilian services for wounded soldiers.[97] Afterward, eight out of a total of forty-five beds were requisitioned by the German Wehrmacht. [98]

Oppland

In Oppland several hospitals were affected by the fighting in the country's interior. Gjøvik Hospital discharged its patients, and those too sick to return home were transferred to a temporary makeshift hospital nearby.[99] Other healthcare facilities were mostly untouched during the initial invasion of 1940, but many other public buildings were requisitioned by the Wehrmacht.

---

[92] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[93] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[94] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[95] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[96] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[97] "Sør-Odal Sykehus," Sør-Odal Kommune, accessed 2023, [URL: https://www.sor-odal.kommune.no/blaskilt/sor-odal-sykehus].
[98] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[99] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

Buskerud

In Buskerud Province, Drammen Hospital had completed a major expansion project on January 1st, 1940, adding 150 beds for a total of three hundred and seventy-five. However, twenty of these were allocated to the German occupiers.[100] Additionally, in Kongsberg, the local tuberkulosehjem was evacuated at the start of the war and ceased operations that year.[101]

Vestfold

In Vestfold Province, the primary war-related change was the evacuation of the naval hospital in Horten from April 9th to October 1st. During this period, the hospital's military purpose was transitioned to civilian use, providing surgical treatment to the public, likely in an effort to offset lost services elsewhere.[102] Also, the tuberkulosehjem in Horten was evacuated at the outbreak of the war and did not reopen until spring 1941, due to reduced demand. This decline is part of a broader context where, despite tuberculosis still being a major public health threat, its prevalence had been decreasing nationally since 1900.[103]

Vest-Agder

In Vest-Agder Province, significant healthcare reorganization occurred as Kristiansand was one of the initial targets of the German invasion. The local hospital in Kristiansand evacuated on April 9th, moving its surgical ward, important for military purposes, to Solvang Lysinstitutt[104] (Light Institute), where all patients were discharged that day.[105] The remainder of the hospital staff, not part of the surgical team, was relocated to Kongsgård Tuberkulosehjem. The tuberculosis patients from Kongsgård were then transferred to Homstean Church in Øvrebø, which became a makeshift hospice.[106] By June, all staff and remaining patients were brought back to the hospital as the invasion phase ended, and the

[100] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[101] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[102] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 5, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[103] Blom, *Feberens ville rose*, 10.
[104] Light institute, a treatment center for skin tuberculosis using light to kill the surface bacteria.
[105] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 5, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[106] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 5, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

Germans had pacified the city. The hospital did not have any beds requisitioned by the occupiers but lost thirty-five beds due to the discontinuation of two older wooden buildings on the hospital grounds.[107]

The city's St. Joseph Hospital was completely requisitioned by the German Wehrmacht on April 10th. By June, as the national situation stabilized, the Germans relinquished twenty-five of the hospital's hundred and five beds to the civilian population. Lastly, the newly built hospital in Farsund (1937) was also partially evacuated during the invasion but returned to normal operations over the summer.[108]

Rogaland

In Rogaland Province, the Rogaland Provincial Hospital in Stavanger had been expanded by January 1st, 1940, adding eighty beds to total one hundred and forty.[109] However, the hospital lost fifty beds to the Wehrmacht's requisitions in April. Stavanger fell to German forces with minimal resistance, as widespread confusion on April 9th hampered any local authority or population efforts to mount a reasonable resistance. On the first day of the invasion, the Germans established full control over the city. A potential upside to this swift invasion was that hospitals and tuberkulosehjem did not experience chaotic evacuations.[110]

Stavanger braced for potential aerial bombing attacks by the British RAF. As a precaution, even though some healthcare facilities did not issue evacuation orders, they refrained from using the upper floors of buildings. Stavanger Hospital moved everything to the first floor, avoiding the use of the second and third floors throughout April. A few months after the invasion, they began utilizing the second floor again but continued to avoid the third.[111]

---

[107] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 5, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[108] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 5, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[109] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 5, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[110] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 5, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[111] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 5, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

Hordaland

In Hordaland, Voss Private Hospital, a small facility with 16 beds, was destroyed by aerial fire-bombing on April 24th.[112] Voss was one of the few areas in Norway where the Norwegians had successfully managed to mobilize, leading to significant destruction from the German Luftwaffe's terror-bombing aimed at destroying infrastructure and demoralizing the Norwegian resistance. This strategy led to the destruction of the small hospital along with many houses in the area.[113] Human losses in Voss were minimal, as most residents had already been evacuated. The patients from the private hospital were initially moved to Bjørkelid Tuberkulosehjem, which had evacuated its patients earlier. This chaotic situation led to the discharge of patients who could leave and the relocation of those who could not. A few months after the invasion, the patients originally from Voss Private Hospital were moved to the larger and operational Voss Municipal Hospital, while the patients from Bjørkelid were returned there by the end of 1940.[114]

Bergen (Its own province until 1972)

In Bergen, Norway's second-largest city and its own province until 1972, there was significant restructuring of the healthcare system during the first year of the war. The city was quickly captured during the German surprise attack on April 9th. Initially, the Germans requisitioned one hundred and twenty out of five hundred hospital beds but later reduced this number by nearly half as the need among German soldiers became less pressing.[115] One reason for this reduced need was an incident on Marineholmen on May 8, 1940. A fire broke out, leading to a large explosion that killed several German soldiers and wounded many others, along with seven Norwegian firefighters.[116] At the time, sabotage was suspected, but experts now believe the likely cause was the Germans' careless handling of explosives.[117] The

---

[112] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 5, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[113] Voss 1940," *Memoar*, accessed 2023, URL: https://www.memoar.no/voss/voss-1940.
[114] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 5, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[115] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[116] Bjørn O. Mørch Larsen, "Denne brannen kostet sju brannmenn livet," *Bergensavisen*, accessed 2023, URL: https://www.ba.no/bergen/denne-brannen-kostet-syv-brannmenn-livet/s/1-41-6931924.
[117] Bjørn O. Mørch Larsen, "Denne brannen kostet sju brannmenn livet," *Bergensavisen*, accessed 2023, URL: https://www.ba.no/bergen/denne-brannen-kostet-syv-brannmenn-livet/s/1-41-6931924.

explosion, heard by tens of thousands in the city, shattered numerous windows, including all those at Florida Clinic which was consequently requisitioned by the German authorities and thus lowered the need to keep requisitions of other hospital beds in the city.[118] The red cross also ran a small clinic in Bergen with sixteen hospital beds had all its medical supplies confiscated by the German military on April 12th and the clinic would not reopen, as it had all its equipment requisitioned.[119]

Møre og Romsdal

During the war, one of the large state sanatoriums, Reknes Sanatorium, was destroyed when Molde was leveled by German forces in late April. On the worst day of the aerial bombardments, April 29th, the main structure of Reknes was destroyed, resulting in the loss of 120 beds.[120] Fortunately, the city and Reknes had already been evacuated, so the loss of life was comparatively small. Another consequence of the invasion was a shortage of hospital beds for tuberculosis patients. In response, local authorities in October 1940 opted to repurpose an orphanage, Symra Barnehjems Hus, to house thirty-five tuberculosis patients, comprising twenty-three adults and twelve children.[121] Other adjustments were made in the healthcare sector throughout the province following the loss of some infrastructure, but these did not appear to significantly affect the care provided to tuberculosis patients and are therefore not detailed further here.

Sør-Trøndelag

On April 9th, Trondheim, the largest city in the region, was occupied without much resistance from Norwegian defenders, who were taken by surprise. Many residents woke up to see German navy ships in the harbor and some went to the city center seeking answers. A contemporary newspaper describes the eerie calm displayed by Trondheim's population in the face of invasion, with many going about their daily routines.[122] However, the healthcare

[118] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[119] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[120] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[121] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[122] Espen Sandmo, "Tok Trondheim uten kamp. De tyske soldatene okkuperte Trondheim uten å møte motstand 9. april i 1940," NRK, 2010, URL: https://www.nrk.no/trondelag/tok-trondheim-uten-kamp-1.7073037.

sector was quickly impacted, as the German military understood the importance of securing medical services for their forces, anticipating resistance from the shocked nation.[123] The German military immediately requisitioned over one hundred beds from Trondheim Hospital, and a similar situation occurred at St. Elisabeth's Hospital, where two wards totaling seventy-five beds were taken over. The Red Cross clinic in the city also had the majority of its beds, sixty-eight out of a hundred, requisitioned.[124] All patients who could be discharged were, leaving only those too sick to move or those who had recently undergone surgery.[125]

Kalvskinnet Hospital, Trondheim's first hospital, with one hundred and thirty-two patients, was also ordered to evacuate by the German military to make room for soldiers, but most patients were considered too sick to move, and it remained a civilian hospital.[126] Tilfredshet Hospital, serving as a sort of 'reserve' hospital, was fully requisitioned by the occupiers and turned into a military barracks by 1940.[127] The hospital was moved to a school building at Fredly High School outside the city, which also provided additional beds for St. Olav's/Trondheim Hospital.[128] Across the rest of the province, as news of Trondheim's occupation spread, mass evacuations were issued throughout the healthcare sector as the military needed facilities for their armed forces. Ringvål Sanatorium, as well as Strinda, Orkdal, Røros, and Opdal Hospitals, along with Rennebu Tuberkulosehjem, were all partially evacuated and prepared to support the Norwegian military and their casualties.[129] When Norway's forces capitulated in the North a few months later, these facilities returned to serving the civilian sector.[130]

[123] Per Christiansen, "Året var 1940, og invasjonen ble møtt med 'koldblodig ro,'" Adressa, 2015, URL: https://www.adressa.no/kultur/i/237B24/aret-var-1940-og-invasjonen-ble-mott-med-koldblodig-ro.
[124] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[125] Per Christiansen, "Året var 1940, og invasjonen ble møtt med 'koldblodig ro,'" Adressa, 2015, URL: https://www.adressa.no/kultur/i/237B24/aret-var-1940-og-invasjonen-ble-mott-med-koldblodig-ro.
[126] Per Christiansen, "Året var 1940, og invasjonen ble møtt med 'koldblodig ro,'" Adressa, 2015, URL: https://www.adressa.no/kultur/i/237B24/aret-var-1940-og-invasjonen-ble-mott-med-koldblodig-ro.
[127] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[128] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[129] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[130] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

Nord-Trøndelag

This province saw several battles in 1940 involving German, Norwegian, and British forces. The towns of Steinkjer and Namsos suffered extensive damage from bombings between April 21st and 23rd[131], with Namsos also being badly damaged in the second half of April before the Allies evacuated in early May.[132] According to reports from the Statistics Norway (SSB), the hospitals there survived the 1940 invasion, and secondary sources do not indicate that they were put out of commission or permanently requisitioned by the German forces that year. [133] Upgrades to healthcare infrastructure coinciding with the invasion were completed in 1940 at Meråker Nursing Home, which added thirteen hospital beds, including five in the home's tuberculosis ward. [134]

Nordland

In early May, while southern Norway had effectively capitulated to the German invaders, fighting continued in the northern half of the country, including Nordland, where Norwegian and British forces strove to keep the Germans from strategic ports. Narvik in Finnmark was particularly significant, and the British hoped to use the coastal town of Bodø to construct an airbase to support it.[135] However, the Germans would not permit this, and by the end of May, Bodø was almost completely devastated by aerial bombings, resulting in fifteen casualties. This relatively low number is attributed to the forced evacuation of the city prior to the attack, leaving behind only soldiers on watch duty, a few civilians who had refused to evacuate, and some firemen and hospital staff. [136] Bodø Hospital was severely damaged by the bombing and the subsequent fires on the evening of May 27th. All staff, patients, medical equipment, and supplies were moved to Rønvik Asyl, which was temporarily converted into a hospital. Bodø Hospital was quickly repaired and operational again by November 15,

---

[131] Espen Sandmo, "75 år siden bomberegnet i Steinkjer," NRK, published April 21, 2010, URL: https://www.nrk.no/trondelag/75-ar-siden-bomberegnet-i-steinkjer-1.7089556..
[132] Espen Sandmo, "Ble utslettet av tyske bomber," NRK, April 20, 2010, URL: https://www.nrk.no/trondelag/ble-utslettet-av-tyske-bomber-1.7087806.
[133] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[134] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[135] Ole Marius Rørstad, "80 år siden Bodø ble ødelagt: – Var i modus for å bli bombet," NRK, 2020, URL: https://www.nrk.no/nordland/80-ar-siden-luftwaffe-slapp-bomber-over-bodo-under-2.-verdenskrig-1.15029610.
[136] Ole Marius Rørstad, "80 år siden Bodø ble ødelagt: – Var i modus for å bli bombet," NRK, 2020, URL: https://www.nrk.no/nordland/80-ar-siden-luftwaffe-slapp-bomber-over-bodo-under-2.-verdenskrig-1.15029610.

1940.[137] Another hospital in Bodø, a temporary infectious disease military hospital, was also badly damaged during the May bombings. After the capitulation, the building was repaired but repurposed as a primary school.[138] Hernes Tuberkulosehjem was evacuated and subsequently abandoned after April 9th, with its building later taken over by the staff of the makeshift military hospital in Bodø.[139] At Gravdal Hospital, the tuberculosis ward was evacuated in April, leading to its permanent closure. Both Mosjøen and Vefsn Hospitals were requisitioned entirely by the German military, and a small provincial hospital with a capacity for only eight patients was set up in their place. Several smaller clinics in Nordland were also affected by the war. Fauske Hospital was temporarily requisitioned by the Germans but returned in October. A clinic in Beiarn closed due to the absence of medical staff. Bjørkåsen Miners Clinic was converted for military use, discharging tuberculosis and civilian patients to treat wounded soldiers from both sides of the conflict.[140] Nesna Clinic was requisitioned by the German forces, and Hemnesberget Clinic was destroyed either by land battles between German and British forces or by British naval bombardment on May 10, 1940.[141] Vensmoen Sanatorium's children's ward burned down during the invasion, though it was unclear if this was directly related to the war or an accidental fire. The sanatorium remained operational but with forty-eight fewer beds for patients, a loss of 31% hospital bed coverage.[142]

Troms

Troms province witnessed several battles, along with aerial and naval bombings in its many sparsely populated coastal towns. Tromsø, the largest city, became the final seat of the Norwegian government as they retreated northward from Oslo, taking with them the national gold depository, civilian government, and the royal family.[143] When the military situation

[137] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[138] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[139] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[140] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[141] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[142] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[143] Ole Egil Størkson and Anders Nøkling, "Historien om gulltransporten: Flukten med Norges gull," NRK, April 5, 2019, https://www.nrk.no/vestland/xl/historien-om-gulltransporten_-flukten-med-norges-gull-1.14414917.

worsened in May, as Germany invaded the Low Countries and France, the Allies withdrew from Norway. Subsequently, the government went into exile in London by early June. By the time the Germans occupied it, Tromsø city had mostly escaped the Norwegian campaign unscathed. Tromsø Hospital was equipped with new X-ray devices, crucial in the fight against tuberculosis, and the German military requisitioned thirty beds, but only in the surgical ward. Other hospitals, like those in Harstad and Troms, experienced what can be termed 'flexible' requisitions, where beds could be used by civilian patients if not needed by the Wehrmacht or Kriegsmarine.[144] Two Catholic hospitals, both named St. Elisabeth's, one in Tromsø and one in Harstad, were taken out of commission for different reasons. The Tromsø facility was initially partially requisitioned in 1940 and then fully in the following years by the German military, while the Harstad hospital suffered moderate damage from bombings in May 1940. However, it managed to repair enough of the structure to allow patients to return by August of that year.[145]

Finnmark

Norway's northernmost province, Finnmark was the one most severely impacted by the invasion in 1940. The capture of Narvik by German forces and then the recapture by Norwegian, Polish, French and British forces was some of the most dramatic In the Norwegian campaign.[146] In Finnmark, approximately fifty field hospitals and clinics were established between April and June 1940 to tackle the crisis. Most of these were rapidly constructed in existing infrastructure in makeshift fashion to treat Norwegian and foreign soldiers. Many of these field hospitals also catered to the influx of refugees from the south and the needs of Finnmark's own civilian population. Most of these were only operational for a few days or weeks at a time, before shuttering and opening somewhere else until the guns had gone quiet and they were shuttered for good.[147] Regarding the more permanent healthcare infrastructure that existed prior to the invasion, Vadsø Hospital was partially requisitioned by the Germans after they captured the town, taking twelve of its forty-five beds. In Hammerfest, a similar situation unfolded at the local hospital, with twenty-five out of ninety

[144] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[145] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[146]
[147] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 8-9, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

beds taken over by the Germans.[148] Tanagård Tuberkulosehjem, like many other facilities, was evacuated on April 9th. By July, when patients and caretakers hoped to return, they found that the German occupiers had confiscated the entire building, leading to its permanent closure.[149] In Finnmark, where infrastructure was already poor, the region's growing strategic importance to Germany as the war progressed meant that some of the few surviving structures would be requisitioned by the military.

Telemark, Sogn og Fjordane, Øst Agder and Østfold

Telemark, Sogn og Fjordane, Øst Agder, and Østfold reported no damage, requisitions, supply constraints, or compromised service availability due to evacuations.[150] School buildings and other government infrastructure not tied to tuberculosis treatment were requisitioned as the Wehrmacht made inroads and occupied the provinces. However, this did not mean business as usual. Some construction projects for additional tuberkulosehjem were canceled, and tuberculosis patients from other parts of the country were evacuated to Lyster Sanatorium, located in the small town of Luster in Sogn og Fjordane, a situation covered by a local newspaper at the time.[151] The report on Østfold mentions the hospital in Fredrikstad, which had to lay off staff due to the crisis, resulting in it being able to provide for only half the patients they normally would in that year.[152]

The Invasion's effects on tuberculosis healthcare

The statistics show a gradual and consistent expansion of healthcare services available to the Norwegian population from 1900 up until the invasion in April 1940. In 1939, there were 13,770 available hospital beds in the nation's ordinary hospitals and clinics, while there were 5,708 beds in the nation's sanatoriums and tuberkulosehjem.[153] In 1940, both of these numbers saw a reduction, to 12,780 and 5,494 respectively. This represents a loss of 7.2% in

[148] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 8, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[149] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 8, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[150]Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 8-9, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[151] Fylkestidende for Sogn og Fjordane, onsdag 5. juni 1940.
[152] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[153] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 2, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

hospital coverage and 3.7% in tuberculosis care coverage. However, these numbers do not reveal the whole story; many hospitals that weren't subject to requisitions increased their total number of beds to try to offset the shortfall. For example, Rikshospitalet increased their total bed number by 54% in 1940. Many other hospitals and clinics also showed similar increases in coverage of between 10-50%, likely in an effort to cover the aforementioned loss of hospital beds elsewhere. The reported losses stemmed primarily from requisitions but also from war damages. Large sanatoriums that weren't damaged by bombs or fire did not follow this trend as dramatically but showed incremental growth in most cases, with a few outliers completing long planned expansion projects that year, such as Vardåsen Sanatorium in Asker, which increased its patient capacity by approximately one-third.[154]

The damage and interruption caused across Norway disproportionately affected some provinces more than others. Some provinces saw little disruption to their day-to-day healthcare provision, apart from disruptions in construction work for a tuberkulosehjem, or having to take in patients from other provinces. What distinguished these territories from others was that they were not of immediate strategic importance to either side and didn't factor into the initial German invasion plans or the Allied plans. The cities taken on the first day saw varied degrees of panic and destruction, though this was a minuscule disruption compared to the immense burden the Wehrmacht levied on the healthcare system in terms of requisitions. The areas in the south, often the interior of the country, saw protracted fighting through April, with destruction and requisitions playing a major role in disrupting healthcare services from operating as it had before the war. The worst affected area geographically can easily be said to be the North, where most of the major fighting took place and the tuberculosis healthcare infrastructure was least developed. Entire towns were leveled or severely damaged, with the chaotic situation leading to the near-total loss of two of the five state sanatoriums. It is no coincidence that the two state sanatoriums located furthest North in the country were the ones damaged. Most cities lost at least one hospital to requisitions, constraining the availability of hospital beds. Tuberculosis patients were among those discharged to make room for critical patients and wounded soldiers. Some decisions do not lend themselves to easy explanations, such as why many tuberkulosehjem in rural areas were evacuated while sanatoriums like Glittre and Landeskogen did not issue evacuations. This could be due to the larger patient numbers at sanatoriums, making evacuation more

[154] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 70, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

challenging. It might also be that the smaller tuberkulosehjem were affected by greater confusion and panic. Additionally, sparse infrastructure in remote areas might have fueled fears of targeting by the military. Most of these smaller facilities would not have been easily discernible from an airplane, unlike the larger, well-known sanatoriums. Grethe Davidson, a sanitary worker at Glittre Sanatorium, remarked in an interview that they had a large red cross marking on the roof, indicating it was a hospital, though it isn't clear if this was done in spring of 1940 or the later occupation years.[155] Some tuberkulosehjem that were not damaged were requisitioned and repurposed by the occupying military after hostilities ceased, such as Tanagård Tuberkulosehjem in Finnmark. Another aspect of the requisitions is that the healthcare services provided by religious and Red Cross organizations, which were both more focused on surgical medical treatment and often located in cities, faced a disproportional number of requisitions in 1940.[156] The need for the Wehrmacht to have access to surgical equipment might explain this discrepancy in the higher number of requisitions of Red Cross and Catholic institutions.

[155] Seiersten, Nørstebø, *Ikke bare glitter på Glittre*, 17.
[156] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*(Oslo: Kommisjon hos H. Aschehoug & Co., 1948), 9, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

Chapter four

Occupant, Collaborationist and healthcare 1941-1945

This chapter explores the structural changes to the Norwegian health department and the replacement of doctors in leadership roles by the occupiers to better conform to their reform desires. It also looks at a conflict between the man who would be put into power by the collaborationist regime to enact control and his longstanding conflict with a majority of his peers in the tuberculosis healthcare system on what the overarching strategy to combat the disease should be. Lastly there is the ideological state of mind the German national socialists carried over to Norway, and what that looked like for the tuberculosis care in Germany.

New leadership and structure in Norwegian Healthcare

Although the German naval invasion of Norway can be seen as a successful gambit for Hitler, the plans in Operation Weserübung for leadership change and the cooperation of the government and royal family did not materialize. Vidkun Quisling, a Hitler-friendly Norwegian politician and leader of the fringe political party Nasjonal Samling (National Union), had provided the Germans with information on Norwegian defenses prior to April 9th.[157] He had also personally met with Hitler and expressed support for Nazi Germany at the outbreak of war in Europe the previous year. On the evening of April 9th, Quisling attempted a coup d'état over the radio from the national broadcasting service, NRK, in Oslo. This attempt ultimately failed, as his orders were largely ignored by the legitimate government and military. The Norwegian King soon rejected German demands to appoint Quisling as prime minister.[158] The King's defiance played a crucial role in uniting the legitimate government under Nygaardsvold in resisting the invasion, leading to a political defeat for Quisling. However, this political defeat did not equate to a military defeat, as the German military controlled large swaths of civilian population and infrastructure in Norway by the first week of the invasion. To avoid a breakdown of services and chaotic conditions, which would have

[157] Kjetil Folde, "Hva som fikk Hitler til å angripe Norge," Dagsavisen, January 9, 2017, https://www.dagsavisen.no/nyheter/2017/01/09/hva-som-fikk-hitler-til-a-angripe-norge/.
[158] Olav Njølstad, "Overfallet," Norgeshistorie, November 25, 2015, https://www.norgeshistorie.no/andre-verdenskrig/1712-overfallet.html.

threatened the effectiveness of the Wehrmacht's campaign and complicated their long-term occupation, the Germans recognized the immediate need for governance. Authority for cooperation with the civilian government, including healthcare, did not come from the King, the Storting, or Quisling (who lacked meaningful support in the populace), but rather from the Norwegian Supreme Court. Recognizing the danger of an ungoverned country during wartime, the court created an emergency administrative council, (Administrasjonsråd), on April 15th, just six days after the invasion.[159] Its first meeting, held on April 16th, appointed Doctor Andreas Diesen to oversee the department of social services, encompassing all healthcare.

The situation remained unclear, with ongoing warfare across central and northern Norway and the German occupiers' intentions for the conquered territories yet to be fully revealed. It was apparent, however, that Vidkun Quisling and his Nasjonal Samling were not part of this seven-member administrative council.[160] On April 24th, Hitler appointed Josef Terboven, a decorated German Nazi, as Reichskommissar of Norway, granting him near-absolute power in all aspects of civilian governance. Terboven only answered to Hitler, effectively becoming the despot of Norway during the occupation. He quickly deemed Quisling and the Nasjonal Samling party unworthy of governing, partly due to his low opinion of Quisling's leadership skills and ideological differences between National Samling and Nazism.[161]

Terboven aimed to assimilate Norway into a greater Germanic National Socialist community, expecting the Norwegian people to adopt German customs and National Socialist values over time. His despotic approach clashed with the Norwegian administrative council, leading to its dissolution on September 25th, alongside all political parties in Norway, except for Nasjonal Samling. Quisling's party became the only legal party, not due to Terboven's wishes, but because of Quisling's political connections in Germany, which extended to Hitler himself.[162] A new political body replaced the council, consisting of thirteen leaders in their respective fields, most of whom were members of Nasjonal Samling, a party that had only about three

[159] Gogstad, *Helse og Hakekors*, 25.
[160] Gogstad, *Helse og Hakekors*, 26.
[161] Gogstad, *Helse og Hakekors*, 29-31.
[162] Gogstad, *Helse og Hakekors*, 26. Schøitz. *Folkets Helse – Landets styrke*, 274.

thousand members in April 1940[163] but grew to over forty thousand, including those sympathetic to Germany and opportunists.[164]

For the Medicinal department in the Ministry of Social Affairs (which closed in May 1941, transferring its healthcare duties to the newly established health department within the Ministry of Internal Affairs)[165], the occupiers resolved a long-standing conflict between politicians, lawyers, and doctors. The latter group advocated for a centralized healthcare system led by physicians, while the former preferred to maintain the status quo. Karl Evang, a doctor and left-wing politician appointed as director of the Medicinal directory in 1938, sought to consolidate state healthcare administration and transition leadership roles to doctors. However, his reforms were interrupted when he went into exile in London with the Norwegian government in 1940.[166] His successors, chosen for their German-friendly attitudes, completed this transition, aligning with National Socialism's preference for a professional, technocratic form of governing. The key difference was that Evang's model allowed for more collegial decision-making, while the National Socialists wanted to employ a strict hierarchical Führerprinzip.[167]

His successor, doctor Thorleif Dahm Østrem, a member of Nasjonal Samling and sympathetic to Nazi ideology, held several racist beliefs, including the notion that the Sami minority in Norway should be legally deemed inferior and prevented from procreating or marrying into the wider Norwegian population, alongside those of Jewish descent and other minorities like Roma.[168] These discriminatory plans failed to materialize in terms of policy due to the worsening war situation for Germany and the collaborationist government. There were also ideas floated with the encouragement of the Germans to enact more stringent sterilization programs as well as start a euthanasia program modeled after the T4 program in Germany from the 1930's. Sterilization was already something practiced by the 1930's in Norway, but to a smaller degree. Much of the archival evidence that might reveal a tangible plan has been lost as in the final days of the war, a suspicious visit to the national archives in

[163] Gogstad, *Helse og Hakekors*, 32.
[164] Gogstad, *Helse og Hakekors*, 32.
[165] Schøitz. *Folkets Helse – Landets styrke*, 275.
[166] Gogstad, *Helse og Hakekors*, 72.
[167] Schøitz. *Folkets Helse – Landets styrke*, 275-276.
[168] Gogstad, *Helse og Hakekors*, 212-123.

Oslo resulted in the withdrawal of large sections of documentation, which have never been seen again.[169]

Above Østrem was the minister of the interior, Albert Hagelin and the German representative for healthcare or Gesundheitswesen, doctor Fritz Paris.[170] The move from a social department to the ministry of internal affairs would in some ways elevate the priority of healthcare. Ole Berg writes about how this came with larger and better offices, closer to the center of power at the Storting[171] where Terboven had made his offices. Hagelin would not interfere in the new health department, as those matters did not interest him according to Gogstad[172], though Gogstad also makes it clear that healthcare would become a priority for the Germans.[173] The explanation for this can be narrowed down to three key reasons. One was that Germany viewed the Norwegian population through their ideological lens as of worthwhile Aryan stock, and their health should be preserved so they could be part of the envisioned Germanic community. The second one was that as the war progressed, the Wehrmacht had over four hundred thousand soldiers in occupied Norway at its height, soldiers who were encouraged to fraternize with Norwegians and especially women. The goal of this, in the minds of SS policymakers was that this would lead to a considerable number of mixed German-Norwegian children. In the first half of the war, it was forbidden for German soldiers to marry Norwegians due to Germany's extremely strict marriage laws that made couples who wished to be married to produce proof of "pure Aryan lineage" as well as evidence they did not harbor any genetic defects.[174] Reproduction was not discouraged on the other hand, it was encouraged by Himmler himself, who started secret Lebensborn homes in Norway to provide healthcare and a place for the Norwegian women to give birth to their out of wedlock children with German fathers.[175]

Because of this and other types of fraternization, the Norwegian population's health could severely compromise the Wehrmacht's combat effectives. If diseases were left to spread rampant through the civilian population, it would inevitably do so through the German

[169] Ragnar Stien, "Norske NS-Leger Og Deres Forhold Til Eutanasi," *Tidsskrift for Den norske legeforening* 135, no. 19 (2015): 1761–63, 1761, https://doi.org/10.4045/tidsskr.15.0300.
[170] Berg, "Spesialisering og Profesjonalisering,". 130-131
[171] «Storting», Norwegian Parliament
[172] Gogstad, *Helse og Hakekors*, 99.
[173] Gogstad, *Helse og Hakekors*, 22.
[174] Gogstad, *Helse og Hakekors*, 69-70.
[175] Gogstad, *Helse og Hakekors*, 70.

soldiers too. Sexually transmitted diseases were a concern for obvious reasons, but the greatest priority and threat in the eyes of the occupiers and their NS collaborators as well as their predecessor in the labor government, was tuberculosis.[176]

The third reason for German priority of the healthcare system was both practical and political in that Reichskommisar Terboven held great doubts about Quisling's leadership abilities. Approval of the collaborationist regime needed to improve, so the risk of resistance movements springing up was kept low. Maintaining healthcare services was seen as a way to do so, at least so resistance movements could not use poor healthcare availability as a propaganda tool. This desire to garner support and not cause too much friction were also reasons, as Doctor Ragnar Stien writes in an article about Norwegian euthanasia programs for the Journal of the Norwegian Medical Association in 2015[177] that such a program was never implemented in Norway despite Nazis and some members of NS wishing for it as it would be deeply unpopular among the Norwegian population. Had such a program been implemented, it is difficult to imagine psychiatric patients suffering from tuberculosis would not be given, as Fritz Paris described "eine kleine Spritze" (A small syringe) to the director of Dikemark hospital, Rolf Gjessing during an official visit. Gjessing asked Paris in turn how psychiatric patients in Germany fared, to which Paris replied "Gibt's Keine Mehr!" (They are no more)[178]. German Doctors, in collaboration with the Nazi Regime, steadily escalated the limits they would go to in the name of protecting the health of the Volksgemeinschaft. Banning marriages between those seen as 'lesser' for potentially carrying genetic defects, to those who were an economic burden on the state. Sterilization, euthanasia, persecution and so on. Tuberculosis was sometimes used for justification of atrocities in the east during the war. Norway's tuberculosis sufferers were fortunately spared from this designation and even though the occupiers applied some pressure on the collaborationist government to seriously consider euthanasia for the incurably mentally ill, such ideas were never floated for those in tuberkulosehjem or the sanatorium.

In leu of this, the tuberculosis ran healthcare needed to continue to operate under occupation, and became one of the arenas with cooperation. Dr. Paris in a report from Norway to Germany would speak very positively on the overall health condition of Wehrmacht soldiers

[176] Gogstad. *Helse og Hakekors*, 68.
[177] Stien, "Norske NS-Leger Og Deres Forhold Til Eutanasi," 1761.
[178] Stien, "Norske NS-Leger Og Deres Forhold Til Eutanasi," 1761.

serving in Norway as well as the civilian population. His chief concern he writes, was tuberculosis. Paris saw the Norwegian climate as "unfavorable" for tuberculosis patients.[179] This designation as tuberculosis being the biggest threat and the climatic conditions not being ideal in Paris' view meant the tuberculosis healthcare system would see continued support throughout the war.

Doctor Sophus Brochmann would be given the role as national tuberculosis inspector, the highest authority on the fight against tuberculosis in the country. He would also be given the job of administrator over Glittre Sanatorium in 1941, one of the country's largest, not too far from Oslo in Nittedal. Having these two roles at the same time was not the norm and Brochmann was criticized after the war for opportunism and collaborationism by Evang.[180] Glittre sanatorium was considered the nation's most prestigious, and the appointment was one of many 'political' favors the puppet government would give out to the doctors who showed loyalty to the regime. Sophus Brochmann joined the party shortly after the appointment.[181] Prior to 9th of April, only 4 out of Norway's 2400+ doctors were members of Nasjonal Samling. By 1945 it was 133 with most having joined the party in the summer and fall of 1940. The last doctor to join the party was in November of 1941.[182] The long-term goal of the collaborationists was to 'nazify' the entire Norwegian government, with the idea that favorability could begin to change from top and then seep down to the bottom.[183] The ministry of the interior attempted to make the medical and professional associations and labor unions fall in line, but this only caused the organizations to see a mass exodus of members in the summer of 1941.[184] One of the key points of contention in relation to the tuberculosis healthcare system was the new laws regarding hiring practices of the health department, where they wanted to control who could and could not be hired in the otherwise decentralized system of small and large institutions. To hire a doctor or place someone in a leadership role required pre-approval from the ministry of the interior. Even private institutions were not exempt from this ruling. "Regulations regarding private hospitals. According to the decree, the managing director, chief physician, and supervisory physician at such institutions must be

[179] Gogstad. *Helse og Hakekors*, 68.
[180] Ryymin. *Smitte, Språk og kultur*, 223.
[181] Ryymin. *Smitte, Språk og kultur*, 194.
[182] Gogstad. *Slange og Sverd*, 146.
[183] Gogstad. *Helse og Hakekors*, 96-98.
[184] Gogstad. *Helse og Hakekors*, 118.

approved by the ministry"[185] was the directive issued to all such private, or semi-private institutions from the summer of 1941 onwards. These moves can be seen as both the Reichskommissariat and the Nasjonal Samling's governments attempts to ensure political resistance would be minimal by doctors to future directives and reforms they had in mind. The man they put in charge of forming the national tuberculosis strategy, Dr. Sophus Brochmann would utilize this unprecedented authority to carry out reforms he had tried to convince his colleagues of since the 1920s[186]. With his new position as national tuberculosis inspector he would attempt to make these reforms a reality.

Tuberculosis prevention. Welfare or healthcare?

When the charitable organizations like Kvinners Sanitetsforening, Nasjonalforeningen and other smaller local and national organizations began to build facilities to care for consumptives at the turn of the century they came upon a dilemma that would be debated for decades. The need was enormous and the care on offer simply couldn't meet demand. When the national tuberculosis law passed in 1900, and the sixth paragraph permitted the government to forcefully admit those carrying active infectious tuberculosis they could not do this in the first few decades as there were simply nowhere to put them. A common solution was to put the sick family member in a warded off room of the house, and try to keep them away from other vulnerable family members, such as children. This was naturally not an easy thing to regulate. From previous work such as that of Andreas Gaard in his thesis, "Kampen mot tuberkulose I Rogaland 1900-1940"[187] (The fight against tuberculosis in Rogaland) we are given insight into how difficult it was to put the law into practice, especially in the early days. As it became more feasible to admit someone due to the infrastructure build-up from the 1900's onward, there was still the consideration of who to admit. Should one prioritize purely on the health of the patient or perhaps the probability the patient is a danger to the public health? Should social status and need play a role? A revealing case in 1926 speaks of the law being used to resolve an abusive situation. A landlord sent in a complaint to the health committee in Stavanger of parents neglecting a sick seven-year-old boy. The child had already been diagnosed with tuberculosis by a doctor, and was thus not allowed to play with

[185] National Archives of Norway, "0006 - Luster sanatorium," RA/S-1291/D/Da/L0084/0006. Letter to fylkesmannen in Sogn og Fjordane from K. Høvde. Dated 10.08.1942
[186] Ryymin. *Smitte, Språk og kultur,* 216.
[187] Gaard, "Kampen mot tuberkulose i Rogaland," 2016.

his siblings. The cramped living conditions meant the child was relegated to live in a small dark storage room in his family home, so perhaps because of these unacceptable conditions the child was admitted to Hagevik Kysthospital, which treated tuberculosis.[188] Gaard speculates that this was an admittance done on welfare grounds and not purely medical grounds, which is not an improbability as welfare projects for people who were high-risk or sick went beyond the strictly medical, Ryymin also writes about this phenomenon and the difficult task of what to prioritize in tuberculosis healthcare.[189] The tuberculosis healthcare system with all its philanthropic elements had from its earliest days combined this social uplifting of people's health with various degrees of caring for the sick and treating tuberculosis with the best methods available at the time. Some of the charitable measures were things like free pasteurized milk for tuberculosis sick children, free clothes, summer camps for the sick, spittoons and even institutions for children who were at risk of contracting tuberculosis at home due to a sick family member, and more were the social welfare or material things the organizations provided.[190] Improving people's knowledge and giving them professional help was another avenue the organizations were invested in, such as educating and hiring nurses, some of whom traveled around rural parts of the country lending aid. This approach of focusing on the social aspect of the disease, trying to prevent its spread through uplifting of the standard of living for groups who were more at risk instead of purely focusing on the medical treatment had its detractors. One criticism was that the resources spent on tackling the social aspect took resources away from the focus of tuberculosis detection, isolation and prevention, and treatment where applicable. Something that helped this argument were the economic constraints of the lean twenties and the depression in the thirties.[191] Another was the relative, national decline of tuberculosis cases among children. Some argued the focus should be more surgical, and divert all focus toward disease detection and surgical treatment.[192] One of the loudest advocates for this change in approach was doctor Sophus Brochmann who was a board member of the Nasjonalforening from 1924 to 1934.[193] Brochmann argued that the epidemiological and biological nature of tuberculosis should be the organization's only focus. To stop tuberculosis from spreading, one had to first find active tuberculosis carriers, isolate them and use the latest surgical methods to neutralize

[188] Gaard, "Kampen mot tuberkulose i Rogaland," 2016, 93.
[189] Ryymin. *Smitte, Språk og kultur,* 129-130
[190] Gaard, "Kampen mot tuberkulose i Rogaland," 2016, 103.
[191] Ryymin. *Smitte, språk og kultur*, 167.
[192] Ryymin. *Smitte*, *språk og kultur*, 168.
[193] Ryymin. *Smitte, språk og kultur*, 169.

infectious tubercule of the lungs.[194] With the methods used to collapse lungs patients could in many cases be 'cured' of the disease and no longer be infectious. Though they would be permanently scarred and often malformed, as the surgery involved the removal of ribs. Mortality rates were also not great, though as Brochmann argued in a medical journal in 1931 that: "Even if my mortality rate should reach twenty percent, it is still the right decision (to operate) because one must in this work prioritize the fight against tuberculosis above anything else"[195] His results of thirty-two surgeries were that three were dead and the rest were no longer infectious.[196] This puts the mortality rate at around 9.4% In the 1930's.

Brochmann remained in the minority opinion and as a result of this, the many social projects started in the 1920s continued into the 1930s. Of the more criticized of the social programs maintained by funds from the Nasjonalforening for example, such as the orphanages for tuberculosis threatened children continued to operate. When in late 1940 however, Brochmann was given the opportunity to change national tuberculosis policy in the health department when he was offered the position of national tuberculosis inspector, the highest authority on tuberculosis disease control in the country. He seized on the opportunity to bring about his reforms he had wanted for the Nasjonalforening, only on a much grander scale, having effectively been given authority to apply pressure on the whole fragmented tuberculosis healthcare system from this new position in the government. Brochmann would use the media as a propaganda tool to disseminate the notion that the fight against tuberculosis being an epidemiological fight and not a social one a foregone conclusion, exemplified in this article in 1944 on public information regarding x-ray screenings.

> It is not only the awareness of the terrible enemy we have in tuberculosis that stimulates the fight. It is also the fact that this fight is not in vain. There are only 1-2 percent sick individuals in the country, and the sources of infection must be found and neutralized through a 100 percent fight against infection. Tuberculosis has previously been too closely associated with the social question, but today it is known that it is not the social factors that play the main role, but the infection, and it is that which must be targeted. The fight against infection must be effective. If we can prevent the infection, the disease will disappear before we have improved our diet and living conditions.[197]

[194] Ryymin. *Smitte, språk og kultur*, 169.
[195] Ryymin. *Smitte, språk og kultur*, 171. *S.W Brochmann*
[196] Ryymin. *Smitte, språk og kultur*, 171.
[197] "Gjengangeren," March 24, 1944, National Library of Norway, accessed 2023, https://www.nb.no/items/b08f8fd136e33364978df0440181e79d?page=1&searchText=skjermbilde.

In this light, it should be seen as a transformative shift in tuberculosis care, at least from the top of the hierarchy. Brochmann believed strongly that tuberculosis had been contained to only a few percentage points of the population, and through a targeted biological approach they would eradicate the disease. The ambition to transform the healthcare system would only be partially met however as he faced several obstacles related to lack of resources and political capital, and he never truly realized his hopes to turn the tuberculosis healthcare system away from the welfare work, though in the desire to limit the use of tuberculosis infrastructure in social welfare, he was somewhat successful. One example of this is Glittre's worker home, which the government already in 1941 wanted to cut funding to. Director Neumann, who would retire that same year defended the existence of the worker's home as having a "Social assignment, and in my opinion, this work should be judged by its social and humanitarian mission."[198] Brochmann would take over as director in September of 1941 according to archival records.[199] He also made his national strategy known to the public, ensuring things that would fight tuberculosis epidemiologically was promoted.[200]

The charitable organizations managed to obtain funding elsewhere and worked independently from the national tuberculosis office under Brochmann. In the research this thesis conducted from reviewing the secondary literature, three reasons for why Brochmann was not able to make the large organizations conform to his epidemiological approach to fighting tuberculosis has been found. The first one is simply that his opinion remained a minority one, as it had been since the early 1930's when he came into conflict with the Nasjonalforening mot Tuberkulose for his convictions that the key to defeating tuberculosis lies far more in disease detection and elimination.[201] The second factor was Brochmann's boss, Health director Østrem's desire to maintain good working relations with the different organizations.[202] The third was a question of financing, where the organizations did not depend on direct tax payer funding, instead they were funded more by charitable donations and already longstanding consumption taxes on alcohol, something Brochmann had no control over. The part he did control and subsequently more tightly regulated, was patients

[198] National Archives of Norway, RA/S-2333/D/L0020, "Diverse korrespondanse" (Various Correspondence).
[199] National Archives of Norway, RA/S-2333/D/L0020, "Diverse korrespondanse" (Various Correspondence).
[200] "Kirurgisk Klinikk for lungetuberkulose i Nord-Norge," *Lofotposten*, June 29, 1944, [Link to article: https://www.nb.no/items/266acb8221c9a918460d9d3b559aafe6?page=1&searchText=glittre%20sanatorium].
[201] Ryymin. *Smitte, språk og kultur*, 169.
[202] Ryymin. *Smitte, språk og kultur*, 196.

admitted to tuberkulosehjem and sanatoriums under paragraph 6 of the national tuberculosis law, as the state would cover some of those patients' expenses.[203]

National socialism and healthcare

By 1940 the German healthcare system had been completely nazified and tuberculosis treatment was no exception. The Nazis valued the common good over the needs of the individual as a baseline for their approach to healthcare in almost every encroachment they did on German medicine. "Public interest ahead of self-interest" was the motto.[204] This approach would have dire consequences for those the national socialists deemed as "life not worthy of life". An obsession with seeing the volk as one organism, whose individuals with genetic defects or poor health were seen akin to cancer cells were an early manifestation of Hitler's own thoughts on healthcare. In Mein Kampf written years before Hitler came to power, he mentions tuberculosis three times. One mention of tuberculosis he compares its characteristic slow burn and chronic nature vis a vi the black death's sweeping bringer of swift deaths as the more dangerous of the two. The slow corruption of tuberculosis was like the corruption caused by the pernicious forces of Nazism's identified undesirables.[205] Another time tuberculosis is brought up, it is used to blame what he calls the Jewish media for making the government slow to react to the rising threat of tuberculosis in the cities, as well as race-mixing being as destructive to public health as tuberculosis and syphilis[206], whilst in the final instance tuberculosis is mentioned he says that it ranks among those diseases which should strip you of the right to have children as they would weaken the volk's blood.

> The generation of our present-day notorious weaklings will of course at once cry out against this and will moan and complain about the infringements on the most sacred human rights, etc. No, there is only one most sacred human right, and this right is at the same time the most sacred obligation, namely: to see to it that the blood is preserved pure, so that by preservation of the best human material a possibility is given for a more noble development of these human beings. Thus a folkish state primarily will have to lift marriage out of the level of a permanent race degradation in order to give it the consecration of that institution which is called upon to beget images of the Lord and not deformities half man and half ape. The protest against this

[203] Ryymin. *Smitte, språk og kultur*, 201.
[204] R. Loddenkemper, N. Konietzko, and V. Seehausen, "Die Lungenheilkunde Und Ihre Institutionen Im Nationalsozialismus," Pneumologie 72, no. 02 (2018): 106–118, https://doi.org/10.1055/s-0044-100315, 106.
[205] Adolf Hitler, *Mein Kampf*, English translation, Reynal and Hitchcock edition (New York: Houghton Mifflin Publishing, 1941). 314-315
[206] Hitler, *Mein Kampf*, 1941. 336-337

> from so-called humane reasons damndably suits a time which on the one hand gives every depraved degenerate the possibility for propagation, but which burdens the products of such a union themselves as well as their contemporaries with untold misery, while on the other hand, the means for preventing births to even the healthiest parents are offered for sale in every drug store and by every street hawker. Thus in this present state of quiet and order, in the eyes of its representatives, this brave bourgeois national world, the prevention of the procreative faculty of sufferers from syphilis, **tuberculosis**, heredity diseases, of cripples and cretins of crime, whereas the practical prevention of the procreative faculty of millions of the best is not looked upon as an evil and does not offend the good morals of this hypocritical society . . . [207]

This third and final mention of tuberculosis in mein kampf is about eugenics, and how everything from race-mixing to carriers of some diseases, among these, tuberculosis was a threat to the German people's blood, and how he lambasted the government's permittance of these peoples to procreate, whilst those he wished would do so were, in his eyes discouraged. He frames It as a fight between good and evil, the healthy and the sick. It is no surprise then that when Hitler came to power it did not take long for these political ideals to be put into practice. Already in 1933, the Nazi regime implemented the first of the laws *for the* Prevention of Hereditarily Diseased Offspring.[208] It gave doctors the power to involuntarily sterilize those with diseases and mental illnesses considered hereditary. In 1934 the law had an amendment that made it obligatory for doctors in healthcare institutions, including sanatoriums to report on patients that could fall under a broad range of conditions that the doctors themselves had the right to define as hereditary or a threat to the 'genetic stock' of the population. In 1935 additional restrictions came in the same year as the infamous Nuremberg laws that also restricted marriage and reproductive rights of those of Jewish descent. Tuberculosis was not first in line of medical conditions that the Nazis targeted for social exclusion, but it did become grounds for marriage denial, and later the carriers of the disease were targeted for nearly all of Nazism's worst excesses in Germany.

In Norway, sterilization was also implemented in the 1930's, with only one dissenting vote in the Norwegian parliament when the law passed in 1934.[209] The law had elements of racial hygiene in mind but it focused mostly on curtailing the reproductive rights of the mentally ill, incapable of caring for children. The law would be amended during the war by the quisling

[207] *Hitler,* Mein Kampf*, 606-607.*
[208] R. Loddenkemper, N. Konietzko, and V. Seehausen, "Die Lungenheilkunde Und Ihre Institutionen Im Nationalsozialismus," *Pneumologie* 72, no. 02 (2018): 106–118, 112.
[209] Schøitz. *Folkets Helse – Landets styrke*, 264.

regime to more closely fall in line with Nazi ideology, though tuberculosis patients never fell under its scope in the same way they could in the German law. The social Darwinist perspective of killing off those who were a burden to the state was a desired outcome of the Nazi occupiers of Norway, though it was never realized. This could be seen as outcome of the fact that Norwegian doctors were more conservative when approaching topics such as euthanasia and forced sterilization than their German counterparts. It could also be seen through the disparity between doctors and their political convictions in the two countries. In Norway the doctors were underrepresented in parties and ideologies that could have promoted ideas of mercy killings or killing patients for the common good, whilst in Germany a large portion of the doctors were members of the Nazi party, by the end of the war 45% of German doctors were members of the Nazi party, and 7% the SS, compared to less than 0.5% of the general population.[210] One reason for this difference between colleagues could be due to brutal experiences during the first world war. In an interview given by the writer Nils Collet Vogt to the Norwegian newspaper Dagbladet in the early 1930's that he had met many doctors on the continent who spoke of killing patients during the first world war. A German professor, Vogt said told him the following when he broached the subject of euthanasia.

> When the severely wounded were brought back in cartloads without legs and arms, people who were never going to be people again, and we had to kill them because we did not have room for them. They occupied the beds for their comrades who had a hope for. But most of all, we believed the most humane thing to do was to free them from a life that could only be filled with suffering.[211]

This dehumanizing experience from the front must have made an impression on German doctors, though equally so for those on the Homefront, where things became dire in the last half of the war. During the war the German state had strict rationing on an ever-worsening food situation. This meant many psychiatric patients died of starvation, something their caretakers would have to bear witness to.[212] The 1920s were times of political and economic chaos, save for a few years of relief that all came crumbling down with the wall street crash of 1929. This does not excuse the actions of German doctors but it might help give one of the many reasons why Norwegian doctors were far more hesitant to abandon the conservative interpretation on the Hippocratic oath than Doctors on the continent, whose life experiences

[210] J.R. Silver, "The Decline of German Medicine, 1933-45," *Journal of the Royal College of Physicians of Edinburgh* 33, no. 1 (2003): 54-66, PMID: 12757002, 57.
[211] Skogheim, *Sanatorieliv*, 100.
[212] Silver, "The Decline of German Medicine," 54.

included a greater degree of turmoil, carnage and familiarity to state approved murder. At least that is probably a small part of the explanation as to why Norwegian doctors were more hesitant to implement a euthanasia program, or starve patients on the grounds they were 'unproductive' in the same way as the German doctors would. This difference of opinion and standing comes to affect the German, versus the Norwegian tuberculosis treatment by the end of the war.

So, what did this Nazified tuberculosis healthcare system look like? For one, in Germany those sick with tuberculosis were seen as more a source of infection and a threat to the public health, than patients. In 1934 the Nazi regime had set up a model tuberculosis sanatorium in the small town of Stadtroda, in the state of Thuringia, Germany.[213] This would be a different form of tuberculosis institution, one that 'treated' the tuberculosis afflicted the national socialists deemed to have anti-social tendencies. The windows had bars on them, the institution was under armed guard and the 'patients' were subject to solitary confinement and food deprivation.[214] Most patients sent here, were those that doctors considered 'difficult patients', who might have resisted an effort to be instituted in a regular sanatorium or evaded a tuberculosis screening control because they knew they carried the disease. The prison like sanatorium had a much higher death rate than regular ones, and some suggested this was intentional state policy.[215] Eighteen such institutions were built in Germany from 1934 to 1942, where the doctors of other institutions were free to send difficult patients in a one-way trip. As the war got worse for Germany, by January of 1943 new guidelines were issued for doctors on how to treat infectious tuberculosis patients. They were to be separated into two categories. The first category were those patients who were well behaved, and whose tuberculosis may be curable, and they could ostensibly become productive members of society upon treatment. The second category were those who displayed antisocial, or selfish and unproductive behavior should not be given treatment. The state began sanctioning the passive euthanasia of patients in the second category, either through food deprivation or neglect.[216] Nazi Germany carried out a more active killing approach to forced slave laborers

[213] R. Loddenkemper, N. Konietzko, and V. Seehausen, "Die Lungenheilkunde Und Ihre Institutionen Im Nationalsozialismus," *Pneumologie* 72, no. 02 (2018). 112.
[214] R. Loddenkemper, N. Konietzko, and V. Seehausen, "Die Lungenheilkunde Und Ihre Institutionen Im Nationalsozialismus," *Pneumologie* 72, no. 02 (2018). 113-114.
[215] R. Loddenkemper, N. Konietzko, and V. Seehausen, "Die Lungenheilkunde Und Ihre Institutionen Im Nationalsozialismus," *Pneumologie* 72, no. 02 (2018). 113-114.
[216] R. Loddenkemper, N. Konietzko, and V. Seehausen, "Die Lungenheilkunde Und Ihre Institutionen Im Nationalsozialismus," *Pneumologie* 72, no. 02 (2018). 114-116.

with tuberculosis and conquered peoples in the east. In 1944 an extension of the T4[217] killing program would target tuberculosis sufferers among the forced laborers, in one instance four hundred were killed. In neighboring occupied Poland, the 'fight against tuberculosis' was even more radical. Tens of thousands of poles with tuberculosis were systematically killed, through active means and passive neglect. A plan to eradicate thirty-five thousand ethnic polish tuberculosis patients was also formulated, but was never fully implemented for logistical reasons.[218] Extreme measures like these never materialized in Norway, for a whole host of reasons. One's tied to how the Germans, through their ideological lens saw the Norwegian people as carriers of valuable Nordic genetic material. Another, which has been shown was the Norwegian medical community's views were largely opposed to the most extreme interpretation of "Public interest over self-interest". A third set of reasons draws on Geography, resources and plain luck. Geographically Norway sits on the Scandinavian peninsula, separate from the European continent and subsequently, the north European plain in which the large armies of Nazi Germany, the Soviet Union and the Allies would advance and withdraw on through the war, turning this area in effect into one massive battlefield, leaving destruction in its wake. The Allied plan was more or less, to trick Germany in to fortifying Norway in the expectation of an Allied invasion that never came. Norway being side-stepped meant the country's healthcare system wouldn't be decimated by aerial bombings in the same way continental Europe was at the end of the war. There was also a food shortage, but with help from the Nordic neighbors this never reached the level of starvation. These elements, of damage to infrastructure and food shortages are explored in the next chapter.

[217] T4, a Nazi euthanasia program that killed babies, children and adults, often with genetic defects or birth defects from 1939 to 1945.
[218] R. Loddenkemper, N. Konietzko, and V. Seehausen, "Die Lungenheilkunde Und Ihre Institutionen Im Nationalsozialismus," *Pneumologie* 72, no. 02 (2018). 113-114

Chapter five

The challenges of war time tuberculosis healthcare

This chapter explores the many challenges the tuberculosis healthcare system faced under increasingly difficult conditions as the war carried on. First it documents the continued requisitions of healthcare facilities, in particular tuberkulosehjem by the occupiers, second it looks at the war damages caused to tuberculosis healthcare facilities from 1941-1945. Thirdly it looks at the threat of other diseases that began to come to the forefront with a population exposed to inadequate hygiene and food conditions. It also looks at the food situation, with high nutrition being considered an important element in tuberculosis recovery care. It also looks at BCG vaccinations and severe healthcare worker shortages in the end.

More requisitions 1941-1945

The Wehrmacht initially reduced their impact on the Norwegian healthcare infrastructure after the 1940 invasion, leading to a period of relative calm in the fall and winter of that year, where even doctors had difficulty finding work.[219] This respite was short-lived, however, as the war escalated into a global conflict in 1941. The uncertainty of the situation is highlighted in archival material from June 22, 1941, when the director at Glittre Sanatorium, Neumann, suspended surgical treatment due to "the risks associated with the unclear war situation."[220] The attack on the USSR in June and the declaration of war on the United States in December worsened conditions in Norway, as Nazi Germany effectively declared war on the world. Joseph Goebbels, the German propaganda minister, would later refer to this as "total war" in a famous Reichstag speech in February 1943. In December 1942, Reichskommissar Terboven invited thirty influential Norwegians in industry to a gentlemen's evening at his residence at Skaugum. During this event, Terboven declared to the Norwegians that the outcome would be either "Total victory or total defeat."[221] This meant that German industry and civilian life, including occupied Norway, would have to be wholly devoted to the war effort. For the

[219] Gogstad. *Helse og Hakekors*, 77.
[220] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse.
[221] Tore Dyrhaug, Norge Okkupert!: *Tysk etterretning om Norge OG Nordmenn*, 1942-1945 (Oslo: Universitetsforlaget, 1985) 69

healthcare sector, this involved the requisition of new buildings by the Wehrmacht, displacing patients and sometimes staff. By the fall of 1942, three of Trondheim's hospitals were requisitioned: Trondheim Hospital, St. Elisabeth's, and the Red Cross Hospital.[222] These institutions had already been partially requisitioned in 1940. The healthcare sector had to utilize other buildings, such as nursing homes and a school for the deaf, to create makeshift hospitals.[223]As the healthcare infrastructure was steadily commandeered by the Germans, the sector had to display increasing ingenuity, especially during epidemics. After the diphtheria epidemics subsided, some makeshift hospitals were repurposed for tuberculosis care. [224] The Germans requisitioned Opdal Hospital, leading to the closure of their tuberculosis ward as the hospital moved into a farmhouse that could only accommodate eight patients. [225] The Wehrmacht continued to requisition tuberculosis homes ("tuberkulosehjem"). In Rogaland province, a large tuberkulosehjem called Høyland was requisitioned in the fall of 1941.[226] Skåland tuberkulosehjem followed in 1943, and Førre tuberkulosehjem was requisitioned in 1944.[227] In Nordland Province, Målselv tuberkulosehjem was requisitioned in 1943, leading to its permanent closure, as was the case with Lyngen tuberkulosehjem in 1944.[228]

Destruction of healthcare facilities 1941-1945

After the Norwegian military was forced to capitulate on Norway's mainland, the Wehrmacht controlled most of the country until Germany's ultimate defeat on May 8, 1945. There were exceptions, such as the Soviet invasion of Finnmark in 1944.[229] Additionally, the threat of Allied bombings persisted, leading to the destruction of some hospitals. This section aims to provide an accurate account of these events. By 1942, Oslo faced significant healthcare shortages, necessitating the creation of makeshift hospitals. One such facility was the former

[222] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[223] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[224] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[225] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[226] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[227] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 6, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[228] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 9, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[229] Ryymin. *Smitte, språk og kultur*, 206.

school for nurses at the Red Cross clinic in Oslo, which accommodated thirty patients. [230] This hospital was severely damaged in a massive explosion on December 19, 1943, during the unloading of ammunition from a transport ship by the docks.[231] The hospital was evacuated and remained unused for four months. To address the patient bed shortage, the student auditorium at Rikshospitalet was converted into hospital wards, creating space for fifty patients.[232] In 1942, Landeskogen Sanatorium, serving tuberculosis patients from southern Norway, Rogaland, and Telemark, was destroyed in an accidental fire. Fifty of its one hundred and thirty patients were relocated to a makeshift sanatorium at an agricultural school in Bygland; the rest were sent home. Those too ill or without a home were sent to nearby tuberkulosehjem.[233] The sanatorium's reconstruction took two years, becoming fully operational again in 1944. Allied bombing campaigns in Bergen, targeting a German submarine base, resulted in significant civilian casualties, with hundreds killed during several raids in 1944. Additionally, a major explosion in the harbor that year also caused numerous deaths.[234] Lundegården, a tuberkulosehjem in the city center, struggled to fill its beds due to growing fears among tuberculosis patients of being killed in explosions.[235] This apprehension was also evident in Honningsvåg, Finnmark, where previous bombings made patients hesitant to visit.[236]

However, the most devastating event for the tuberculosis healthcare system, and Norway at large, was not from Allied bombs but from German scorched-earth tactics in Finnmark and parts of Northern Norway, aimed at slowing the Soviet advance. On October 28, Hitler ordered the evacuation of all of Finnmark's civilians as the German Wehrmacht retreated, leaving nothing for the advancing Red Army. Nearly every building was destroyed in October 1944 – 11,000 buildings, housing about 60,000 people, were razed. Of these, 21 were healthcare-related, with a total of 578 patient beds, according to Ryymin.[237] Some

[230] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[231] Torgeir Ekerholt Sæveraas, "Filipstadeksplosjonen," Store norske leksikon, accessed July 2023, https://snl.no/Filipstadeksplosjonen.
[232] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[233] "Landeskogen sanatorium brent ned," *Østlandets Blad*, July 20, 1942, https://www.nb.no/items/3e9547a45f0c0f9b58c7b087e74455d8?page=0&searchText=Landeskogen%20sanatorium.
[234] Tom Arne Moe, "75 år siden bombene haglet over Laksevåg," NRK, October 4, 2019, URL: https://www.nrk.no/vestland/75-ar-siden-bombene-haglet-over-laksevag-1.14726557.
[235] Blom, *Feberens ville rose*, 127.
[236] Ryymin. *Smitte, språk og kultur*, 204.
[237] Ryymin. *Smitte, språk og kultur*, 205.

locations, like the Nyborg tuberkulosehjem in Nesseby, survived, reportedly due to a German doctor who declared it a tuberculosis treatment center, thus forbidding German soldiers from approaching it, as recounted by nurse Helga Mårdalen.[238] The rushed evacuation in the harsh late-October climate of Northern Norway's subarctic conditions led to the deaths of many tuberculosis patients in poor health, who were forced to be brought along on a difficult journey south.[239]

Other diseases and its effects on tuberculosis healthcare

As discussed in the section on the invasion and its impact on the healthcare system, many tuberculosis patients were displaced to accommodate those wounded during the conflict. When the situation stabilized, tuberculosis patients were either readmitted or new patients occupied the now-vacant beds. However, this period of calm was short-lived. After 1941, the general health of the population began to deteriorate. Diseases previously under control re-emerged as hygiene and nutrition worsened. Scabies and lice, although less severe, became more common, likely underreported as they did not warrant visits to the doctor.[240] Conversely, typhoid and diphtheria were serious enough to require medical attention, leading doctors to treat these diseases increasingly through sudden epidemic outbreaks during the war.[241] The situation with diphtheria became so critical that some tuberkulosehjem (tuberculosis homes) had to discharge their patients or transfer them to other facilities to accommodate diphtheria patients instead. An example is Elverum helseheim, which, by 1943, was entirely devoted to treating diphtheria. By 1944, as diphtheria is an epidemic that comes in waves, these facilities could refocus on treating severe tuberculosis cases.[242]

In the northern provinces, where healthcare infrastructure was weaker, tuberkulosehjem were often repurposed for the diphtheria epidemic. For instance, in 1944, Bodin tuberkulosehjem was evacuated to make room for diphtheria patients, with its tuberculosis patients being moved or discharged. Narvik tuberkulosehjem faced a similar situation, though it continued

[238] Ryymin. *Smitte, språk og kultur*, 205.
[239] Ryymin. *Smitte, språk og kultur*, 206.
[240] Gogstad. *Helse og Hakekors*, 275.
[241] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[242] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 4, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

treating approximately half its tuberculosis patients.[243] St. Vinsentz's Hospital in Hammerfest, initially intended for tuberculosis patients, dedicated an entire floor to epidemics from 1942 onwards.[244]

This overview, while not exhaustive, reveals a clear pattern of repurposing the extensive tuberculosis healthcare infrastructure for patients with epidemic diseases. Two conclusions can be drawn from this. First, this could be seen as a locally initiated pragmatic policy driven by necessity, given the lack of other hospital beds and the various factors stretching the Norwegian healthcare sector to its limit. Second, this was facilitated as a byproduct of Brochmann's reforms, which had introduced more stringent admission criteria for tuberculosis patients, especially for tuberkulosehjem. These policies led to fewer admissions and, consequently, these facilities, once overcrowded, had spare beds available during the war.[245]

Tuberculosis care and the food situation during the war

The Norwegian people would experience chronic food shortages during the war, and struggles to maintain a varied diet became a challenge for many.[246] This restricted caloric regime the entire population was expected to live under was obviously a severe problem for the tuberculosis healthcare system, where a pillar in their treatment involved keeping the patients on a high caloric diet to strengthen the body and the immune system for the times when the patient experienced particularly bad bouts of tuberculosis.[247] There was a stark contrast between Norway and its neighbors to the west and the south. Denmark, despite also being occupied fared much better during the war in securing enough food for its people. As did Sweden, which remained neutral and at peace throughout the ordeal. The reasons first and foremost are geographically linked. Norway has a severe lack of fertile soil, making it a food importer. Already in 1938 as Europe was teetering on the brink of war, Norway issued its first set of rations and when the Germans came in 1940 there would be rations on flour,

[243] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 8, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[244] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 9, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[245] Ryymin. *Smitte, språk og kultur,* 201.
[246] Schøitz. *Folkets Helse – Landets styrke*, 296-297.
[247] Skogheim, *Sanatorieliv,* 172.

bread, butter, sugar, fat, chocolate, coffee, syrup, cheese and so on[248]. In 1941 there would be rations on milk and meat. By 1942, nearly everything was rationed in Norway, with only a few exceptions. One of the abundant foodstuffs on the Norwegian coasts was fish, although it was difficult to obtain reliably in the cities and interior regions, where restrictions were also introduced in 1943.[249] Towards the end of 1942, Norway's neighbors began sending food aid in the form of 'Danskehjelpen' and 'Svenska Norgeshjälpen', intended first and foremost to cover needs of children and patients at hospitals and sanatoriums.[250] It's hard to calculate exactly how bad the food situation got, but one telling case is of Doctor Otto Galtung Hansen who carried out a small-scale study on fifty-five families in Oslo and their food situation in January-February of 1943.[251] Hansen was the former national tuberculosis inspector, who was fired in favor of the more politically agreeable Brochmann to the collaborationist government. Hansen had already done studies with his colleague Evang during the 1930's on the poor nutritional situation of Norway's families under the poverty line, and in 1943 found that the situation was less than stellar for regular working-class families in Oslo.[252] He was not the only one who noticed that the food security situation was especially bad in the cities. The tuberculosis inspector in Oslo, Dr. Eyolf Dahl linked the increase in sickness among the population to the lack of food.[253] The school system chief physician in Oslo, responsible for monitoring the health and wellbeing of children In the Norwegian capital, Lauritz Stoltenberg warned in 1943 that the physical development of the school children had stagnated and the health declined. The children were thinner, shorter, more pale and weaker. By the end of the war, he would write that the overall situation for children in Oslo was bleak.[254]

The rationing laws put extra calories into consideration for sick patients, tuberculosis ones in particular. Many of the sanatoriums were like closed off rural communities, with some ability to produce a bit of food on their own, as well as having a reliable business relationship with the farms in their proximity. Landeskogen, before it burned down had an arrangement to secure enough whole-fat milk for their patients from nearby farms and larger ones from afar.[255] As things became harder, and the years leaner it was strictly rationed so only patients

[248] Gunn Sørum, "Oppskrifter og råd i krisetider," *Norgeshistorie*, 2017, URL: https://norsktradisjonsmat.no/tradisjonsmatskolen/artikkel/oppskrifter-og-rad-i-krisetider.
[249] Gogstad. *Helse og Hakekors*, 299.
[250] Gogstad. *Helse og Hakekors*, 298.
[251] Gogstad. *Helse og Hakekors*, 299.
[252] Gogstad. *Helse og Hakekors*, 300.
[253] Gogstad. *Helse og Hakekors*, 300.
[254] Schøitz. *Folkets Helse – Landets styrke*, 273.
[255] Fjermeros. Landeskogen 100 år, 11.

would get the whole-fat milk, whilst the staff would have to make do with skimmed-milk.[256] The sanatoriums were high consumers of milk, as it was an easy source of fat and doctors believed it had health benefits for consumptives.[257] Many Sanatoriums operated their own farm where cows and chickens were raised for milk and eggs, and vegetables were grown to supplement the rich diet that patients were prescribed. [258], though they weren't entirely self-sufficient. Milk was nationally strictly regulated during the occupation. the rigid rationing rules meant that even sanatoriums that had their own dairy farm had to ration the milk among their patients and staff. Dr. Brochmann, who became director at Glittre in 1941 had to ask for permission to the nittedal forsyningsnemnd (local rationing administration) to allow the office staff at Glittre sanatorium to purchase skimmed milk with their ration cards at the sanatorium, as it was difficult and inconvenient to get it elsewhere.[259] A patient at a Norwegian sanatorium was allotted 2-3 liters of milk a day. In Glittre's case this equated to 273 liters daily, divided among an average of 110 patients.[260] Eggs were even harder to obtain than milk, with the health minister Østrem issuing a proclamation wherein doctors across the nation could prescribe one egg a day to sick people, with conditions like diabetes and tuberculosis. Small children and pregnant women would also be allotted one egg a day if the doctors saw it as prudent. In the same proclamation, doctors in the north were warned to prescribe eggs to patients as it would be difficult to secure eggs for them.[261] The quality of flour to bake bread also deteriorated as it became commonplace to introduce chalk to the dough, for volume. This was colloquially called "Terboven flour" by the Norwegians. The sanatoriums were also receivers of this flour, which required an expert baker to make edible for the patients. "As long as we had good flour before the war, apparently her bread was excellent – now it is terrible."[262] Complained Brochmann, about his untrained baker who had no experience with this type of flour. The baker in question was sent to a bakery to learn the art of baking bread with the sub-par quality flour in 1943. There was a lack of skilled labor, so replacing a bad baker with a good one could be difficult for the sanatoriums, instead investing in this worker to improve her skills was the approach taken.

[256] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse.
[257] Gaard, "Kampen mot tuberkulose i Rogaland," 2016, 63.
[258] Seiersten, Nørstebø. *Ikke bare glitter på Glittre*, 19.
[259] Gogstad. *Helse og Hakekors*, 298-299.
[260] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse.
[261] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse.
[262] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse. Dr. S.W Brochmann

Because food was allocated to the sick through guarantees from the state, and some of the sanatoriums had a degree of food production built into the land managed by the respective institutions, the archival material reflects an added bureaucratic burden in getting enough ration cards and permissions but it does not show starvation like conditions at the sanatoriums. It's worth noting that assessing whether there were negative effects on tuberculosis patients' health due to a less varied diet is difficult in the context of tuberculosis care. The disease often leads to a loss of appetite which in turn affects the patient's weight. While there is no known documentation of starvation within the tuberculosis healthcare system in Norway, it is likely that had Sweden and Denmark not sent food aid, and even more importantly, that Nazi ideology viewed the Norwegians as genetically favorable things would have turned out very differently. This concerted effort to ensure the Norwegian people didn't starve was largely successful, even if many Norwegians went hungry through the war.
Ration conflicts could occur between the collaborationist government and the Geshundheitsabteilung[263] over how much food should be allocated to the Norwegian populace. In 1942 a brief conflict erupted between an enraged Fritz Paris and Dr. Østrem over the amount of cod liver fish oil, or "tran" in Norwegian that the population should be allotted on a yearly basis. Calculations initially came to 4000, which was an outrageous amount from Fritz's perspective. As it turned out to be a misunderstanding, the number only representing "optimal conditions" came down to 1000 tons a year, with 3 grams per day per citizen. Paris demanded that Tran should only be given out with prescriptions, but the collaborationist government did not issue strict guidelines, leading to the distribution of Tran happening on a far more liberal basis than the Germans had intended.[264] Overall though, the situation seems to have been difficult, but bearable for the tuberculosis healthcare system.

Fuel, clothes, transport in tuberculosis care

Among all the resources referenced in correspondence and archival materials, fuel is the most frequently mentioned. [265] The German war machine partially relied on synthetic fuel, and like most of Europe, which were oil importers, not exporters, Norway was no exception. At the outbreak of war, Norway, not being an oil producer, depended on imports. Sanatoriums needing oil had to submit detailed requests justifying the usage and amount. However, the

[263] Gesundheitsabteilung, German word for health department.
[264] Gogstad. *Helse og Hakekors*, 60.
[265] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse.

granted amounts were often limited due to severe fuel shortages that eventually crippled the German military in the latter half of the war. Clothing supplies were also scarce, necessitating the use of alternative materials to produce lower-quality garments.[266] An 'archaic' practice in state sanatoriums was patients bringing their own wool blankets. Plans to discontinue this practice was delayed due to the war. [267] Interestingly, as Skogheim notes in "Sanatorieliv," sanatoriums managed to retain their vehicles, a rarity as many private and public vehicles were requisitioned by the German military. This exception was attributed to the Germans' inherent fear and respect for tuberculosis, deterring them from requisitioning vehicles that had been used to transport tuberculosis patients, due to concerns about contagion.[268]

Medical supplies and BCG vaccination

From the archival material there has not been much to indicate a severe lack of supplies for tuberculosis patients when it concerned medication and equipment. X-ray machinery was mentioned as needing to be replaced, and these were of limited supply albeit available. X-ray equipment used since the early 1920s would be replaced during the war.[269] There were shortages in medicine and surgical equipment, but compared to fuel and labor shortage it didn't appear to occupy the minds of directors nearly as much. It's difficult to do surgery if you have a shortage of surgeons after all. Transportation logistics were also challenging, such as keeping fresh 0- blood at hand. Some of the staff had to resort to donating blood for surgeries to take place. "Back then it was difficult with blood. There wasn't a blood bank in those days. Sometimes my husband gave blood. I gave blood only one time. I had a difficult blood type. When the war was over, they could do more surgeries again."[270]

In terms tuberculosis care, it likely had little dramatic effect that some medication may not have been accessible. From the archival material, surgeries were carried out as before.[271] as no medicine was proven effective, and the first antibiotics able to treat tuberculosis were discovered in the United States in 1943, thus only North America would have some limited

[266] Guri Hjeltnes, "Hverdagsliv under andre verdenskrig," Norgeshistorie, last modified October 21, 2020, https://www.norgeshistorie.no/andre-verdenskrig/1703-hverdagsliv-under-andre-verdenskrig-.html.
[267] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse.
[268] Skogheim, *Tæring,* 33.
[269] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse.
[270] Seiersten, Nørstebø. Ikke bare glitter på Glittre: 17 interview with Grethe Davidson
[271] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse.

access to the drug until after the war.[272] One example of a medicine used at the discretion of the doctor, due to its unclear health benefits was Sanocrysin, a gold salt some believed could treat some cases of tuberculosis. During the war, alternatives had to be found, to lower costs. "Meanwhile I don't think you would do the patients any harm by demanding that there instead be used solganalkur, which also is a goldtreatment and much cheaper."[273]

Another tool in the toolbox for tuberculosis healthcare as it were, were the BCG [274] vaccines invented and first given to a human in 1921 by French scientists Albert Calmette and Camille Guérin. The BCG vaccine was effective in warding off severe tuberculosis in small children, but its efficacy in adults is more questionable according to modern sources. The vaccine was popular in its native France, and in Quebec Canada by the end of the 1920s but skepticism prevailed in non-French speaking countries.[275] More skepticism stemmed from the Lübeck affair, where 71 children and many more were infected with tuberculosis, a lab accident had caused a live human tuberculosis strain to contaminate the vaccine batch in 1931.[276] The Nazi party would capitalize on this event, calling for an end of this 'French' science experiment on German children.[277] The Scandinavian countries meanwhile, were early adopters of the BCG vaccine outside of the French speaking world. In Norway, production of the vaccine took place already in 1936[278] and Norway had run trials on giving nurse students in Oslo who tested negative for the tuberculosis bacteria access to the BCG vaccine in the 1930's. According to that study's findings the non-vaccinated nurses would have seven times the mortality rate of the vaccinated ones, due to tuberculosis.[279] By 1939, as with so many other things the social democratic aspirations had hopes of introducing mass-scale BCG vaccinations but it never went further than a policy suggestion. In practice, BCG vaccines were already commonplace among sanatorium workers in Norway[280], and this increased during the war, in line with Brochmann's reforms. Ryymin makes note of his ambivalence to the BCG vaccine, on one hand Brochmann saw the vaccine's efficacy as "highly doubtful"[281]

---

[272] Bynum, *Spitting Blood*, 194.
[273] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse. S.W Brochmann to colleague, 23. June 1942.
[274] (BCG) Bacillus Calmette–Guérin
[275] Bynum, *Spitting Blood*, 177.
[276] M. Thießen, "Security, Society, and the State: Vaccination Campaigns in 19th and 20th Century Germany," *Historical Social Research* 46, no. 4 (2021): 252-253, https://doi.org/10.12759/hsr.46.2021.4.211-315.
[277] Bynum, *Spitting Blood*, 177.
[278] Blom, *Feberens ville rose*, 135.
[279] Bynum, *Spitting Blood*, 177.
[280] Seiersten, Nørstebø. *Ikke bare glitter på Glittre,* 22.
[281] Ryymin. Smitte, språk og kultur, 202.

and he halted Nasjonalforeningen's information campaign in a publication, but that may have had more to do with the fact that Brochmann himself wanted to dictate national tuberculosis strategy.[282]

The Nazis would not seriously revisit the BCG vaccine until the end of the war, with the Lübeck affair still in the minds of the health ministry[283], but Norway did. In January 1941 Brochmann he made it state policy that anyone who would work at a tuberculosis sanatorium or tuberkulosehjem would need to be tested, and given BCG vaccination if the test was negative. He also claimed that there were plans being made for a mandatory vaccine program in Norway at a congress in Berlin, 1941.[284] No such mandatory vaccine program materialized in Norway until after the war in 1947 after neighboring Sweden had implemented it in 1944.[285]

Financing for Tuberculosis care

The way the tuberculosis healthcare system acquired funds was incredibly diverse. The large state sanatoriums were holders of land and could sell resources off that land, like firewood and agricultural products. The state paid for some of it, through state taxes but the majority of the funds came through taxes from a state monopoly on beer, wine and hard liquor.[286] (vinmonopolet).

Charitable donations were always a pillar in the funding of the tuberculosis care and prevention work in Norway. Nasjonalforeningen and Norske Kvinners Sanitetsforening both worried that the war situation would result in funds drying up for the work they were doing, and the first years of the war severe cuts to spending were implemented in anticipation of this loss of revenue.[287] Selling of postage stamps was one source of revenue, something that continued to be a boom during the war despite the loss of foreign markets. A potential reason for this, that seems likely is that the strict rationing coupled with the German military and industry spending a lot in the Norwegian economy, meant that there was more liquidity than

[282] Ryymin. Smitte, språk og kultur, 202.
[283] M. Thießen, "Security, Society, and the State," *Historical Social Research* 46, no. 4 (2021): 252-253.
[284] Ryymin. *Smitte, språk og kultur,* 202.
[285] Bynum, *Spitting Blood*, 177.
[286] Ryymin. *Smitte, språk og kultur,* 181.
[287] Gogstad. *Helse og Hakekors*, 79.

goods to buy. Price controls were also in place, even from before the war.[288] This meant in the legitimate market, an individual's money could only allow you to purchase whatever your ration card permitted them to. If they sought out the black market, prices would be very high and there were legal ramifications if they were caught. Given these economic conditions, it does make sense that charitable donations were maintained under occupation, even increased in some cases.[289] This was a net positive, for the semi-formal social welfare system set up for tuberculosis threatened children, and tuberculosis survivors who depended upon the charitable donations. In a newspaper from 1944 called Frostingen one could read numerous articles about burglars stealing slaughtered pigs, and leather shoes. Among the articles are announcements that new Christmas postcard stamps and lottery tickets, to win a cabin are being sold to fund the tuberculosis work of the Norske Kvinners Sanitetsforening and Nasjonalforeningen mot tuberkulose.[290] Even in the poorest province of Finnmark, were things tolerable for the charity funded healthcare system.

> While we had war in our country, it was reasonable that no one had the courage to do anything for the benefit of the organization's finances. But that situation fortunately did not last long, and when the situation calmed down again, it was relatively easy to raise money for continued work.[291]

The state on the other hand, would cut funding to organizations, if the project was not compatible with Brochmann's vision of a tuberculosis eradication program, based on more epidemiological grounds.[292] Fortunately for the charitable organizations, the aforementioned economic situation of "capital rich, product poor" existed, and the organizations had a very long history of fundraising dating back to their conception at the turn of the century to take advantage of.

[288] Lie. Norsk økonomisk politikk etter 1905, 79-81.
[289] Sagabråten, "Kampen mot tuberkulosen i det lavendemiske området Hallingdal.", 70.
[290] "Frostingen," November 8, 1944, https://www.nb.no/items/b0aa5543333c0433edf6edf66fdf3303?page=0&searchText=norske%20kvinners%20sanitetsforening
[291] Sofia Aas, chairwoman for the tuberkuloseforening in Kjelvik, Ryymin. *Smitte, språk og kultur*, 204.
[292] Ryymin. *Smitte, språk og kultur*, 196.

From unemployment to labor shortage

The war was not just marked by supply shortages and a declining health of the population leading to an increasingly difficult job for the healthcare sector. A shortage of healthcare professionals, including nurses and doctors was also becoming a problem for the health directory that sought to keep access to healthcare across Norway. In a broad sense the shortage was chronic for most of the war. The exception lies in the last half of 1940 when doctors found themselves without work as patients failed to materialize. The reason for this was likely, as Gogstad speculates that people were busy readjusting their lives to a new reality under occupation, to extent that minor and moderate health concerns were ignored to a larger degree than they would have, had the country not just gone through a shocking transformation.[293] A major concern in 1940 for all healthcare personnel was the issue of being paid as the healthcare insurance fund put up restrictions for what the funds would help pay for. Only essential visits to the doctor would be covered under the social insurance scheme, and healthcare workers were asked to limit treatment to only what was strictly necessary if costs and resource usage was a factor.[294] Doctors who had private practices and those who were specialists before the war were worst affected, and about one hundred doctors were unemployed in 1940, some of which offered to work for free at hospitals.[295] At sanatoriums, restrictions to how long someone could work were felt when orderlies and nurses weren't permitted to work through holidays, to provide for those at home in the difficult times.[296] Tuberkulosehjem and smaller clinics were shut down from lack of funding.[297] It would turn out that these fiscal policies had gone further than necessary and the insurance funds had a sizable surplus at the end of 1940.[298] This lull wouldn't last however as doctors saw a steady increase in patients in 1941 and as the hygiene and health deteriorated among the population, the epidemics of 1942, 1943 and 1944 left the entire healthcare system with many more patients to treat.[299] At the same time, the Wehrmacht saw increased need for Norwegian doctors and medical personnel. Initially they were hesitant to permit Norwegian

[293] Gogstad. *Helse og Hakekors*, 77.
[294] Gogstad. *Helse og Hakekors*, 78.
[295] Gogstad. *Helse og Hakekors*, 219.
[296] National Archives of Norway, RA/S-2333/D/L0136 - Glittre sanatorium. Korrespondanse vedr. forskjellige saker.
[297] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 2-9 https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[298] Gogstad. *Helse og Hakekors*, 78.
[299] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1945*, 45, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.

doctors to treat German soldiers, but realities on the ground dissolved this hesitation. In most towns and cities, the soldiers had their own medical doctor in 1940 but already then it was not uncommon for medical specialists to examine the soldiers, including giving Wehrmacht soldiers pirquet skin tests to detect tuberculosis.[300] The Germans would come to find the Norwegians to be dependable in the medical field and increasingly began to request that they work for German corporations and industry.[301]

By 1942 as the war situation grew increasingly uncertain for Germany and the axis, a chronic shortage of doctors in Germany materialized. What was initially a voluntary exercise on behalf of Norwegian doctors became mandatory. Norwegian doctors could no longer open a private practice, nor move to practice medicine in another district without explicit approval by the collaborationist government's health department.[302] The ministry of the interior which the health directory fell under could also bar a doctor from practicing medicine and revoke his or her license at will, without the doctor being able to challenge the decision in the courts.[303] The argument made for these rigid restrictions was to maintain health coverage across Norway, as many rural areas had difficulty keeping medical personnel working.[304]

The medical staff shortage was so severe that some practices that had been common for decades ended during the war such as sanatoriums and tuberkulosehjem taking on nurse students without pay, but in exchange for their work they would receive free food, housing and experience was no longer possible in many places. Paid positions had to be offered instead. When these positions were difficult to fill, they had to nearly double the wages to get enough nurses.[305]

Smaller clinics across the country, such as in Lierne, Rødøy and Grimstad had to close down, due to lack of nurses.[306] Larger healthcare facilities would manage better, though outside of large cities it was difficult to keep positions filled.[307] The German military and industry would continue to try to siphon off Norwegian doctors. Sometimes within Norway and other

[300] Gogstad. *Helse og Hakekors*, 217.
[301] Gogstad. *Helse og Hakekors*, 219.
[302] Gogstad. *Helse og Hakekors*, 221-222.
[303] Gogstad. *Helse og Hakekors*, 222.
[304] Gogstad. *Helse og Hakekors*, 222.
[305] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse.
[306] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 5-7, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[307] Gogstad. *Helse og Hakekors*, 223.

times in service of the Nazi war machine in the east. Doctor Fritz Paris also sought to recruit Norwegian doctors for the colonization project of Ukraine in 1942.[308]

It was not just axis operations that led to doctors being siphoned away from their jobs in the Norwegian healthcare system. Some would flee to Sweden, others to England for political reasons. A good example of this is the surgeon Johan Holst, who was involved in the Finnish winter war in 1940. When Norway was attacked, he served as chief medical officer in the Norwegian defense forces. When Norway capitulated, he was high up in the chain of command in MILORG.[309] At the same time, he was working under Sophus Brochmann as a thorax surgeon at Glittre sanatorium in 1941. On the 27th of September 1941 Doctor Holst turned in his resignation paper to Brochmann, who wrote him back on the 1st of October on the strongest terms to reconsider his decision.

> In this regard, I, on behalf of the many patients, urge you most seriously to reconsider your decision. You have begun the work here and have already achieved brilliant results. The trust in you is indisputable, both among the sick and the doctors here. You have paved new paths in thoracic surgery; therefore, it seems entirely senseless that you now suddenly interrupt the work. If I were among the sick, I would feel somewhat abandoned. Indeed, no surgeon with your experience is ready to take over the work after you. I have faith that, despite everything, you will not disappoint the sick. If I hear nothing more from you, however, I will assume that you are standing by your decision. Glittre Sanatorium. S.W Brochmann[310]

Holst would flee to England that same month and serve the Norwegian government in exile for the rest of the war. Other doctors found themselves arrested by the Germans. Some for breaking laws or being involved in resistance activities, others for being Jewish. Although the number of Jewish doctors in Norway was relatively small, the loss of even a few doctors was detrimental to a healthcare system barely able to maintain healthcare services across the occupied country.[311]

Not all healthcare work against tuberculosis that stopped during the war was an unintended consequence of the war, some became stated government policy, such as the deployment of traveling teachers from Nasjonalforeningen. These educators, no more than two to four

[308] Gogstad. *Helse og Hakekors*, 228.
[309] Gogstad. *Slange og Sverd*, 309.
[310] National Archives of Norway, RA/S-2333/D/L0020 - Diverse korrespondanse.
[311] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 54.

traveling around the country at a time would go to remote farms in the interior and fishing villages along the Norwegian coastline. Their mission was to educate people about tuberculosis: its symptoms, transmission and how to prevent people from catching it. The German-imposed travel restrictions would make this work impossible.[312] It was also considered an inefficient use of resources by the leading authority on tuberculosis care in Norway within the collaborationist government so it would no longer earn material or political support from the government.[313]

A summary of War time challenges for tuberculosis care

The two elements that most disrupted the tuberculosis healthcare system during the war were military requisitions and the loss of doctors, often due to political reasons. Many doctors fled abroad, while others were co-opted for German interests. Notably, the issues of financing and labor shortage evolved from 1940 to 1941-1945. In 1940, war uncertainties led to tightened budgets in healthcare and charitable organizations, coinciding with a surplus of unemployed doctors. However, post-1940, as the occupation's nature became clearer, funding for tuberculosis treatment was no longer a hindrance, but a critical labor shortage emerged. This shortage was more acute in rural areas, affecting tuberculosis facilities due to their remote locations.

The burning of Finnmark was particularly devastating, destroying much of the healthcare infrastructure. Thankfully, other provinces tuberculosis infrastructure managed to accommodate the displaced patients. Despite these challenges, the system remarkably absorbed the shocks without severely impacting patient care or tuberculosis prevention efforts. To the system's credit, it seemed to be able to weather the storm.

[312] Ryymin. *Smitte, språk og kultur*, 151.
[313] Ryymin. *Smitte, språk og kultur*, 196.

Chapter six

Continuities in the reform of tuberculosis healthcare before, after and during the occupation

Attempting to associate anything positive or progressive with Nazism, even in a seemingly apolitical realm like tuberculosis healthcare, has been an uncomfortable academic exercise. For an ideology like Nazism, everything is inherently political. The national socialist healthcare system prioritized the health of the populace over individual care. While this approach aligned with certain principles of public health, it often infringed on civil liberties in favor of state interests. Through the lens of Western liberal values, some policies are unequivocally destructive, including forced sterilizations, euthanasia, human medical experimentation, and mass eugenics studies. However, the national socialists and their collaborationist government also introduced reforms previously discussed by social democrats and other progressive movements. Some of these, such as mandatory vaccination programs for children, mandatory sobriety tests for drivers after traffic accidents, and government child support[314], were maintained post-liberation and repackaged into new laws, aligning with the long-term ambitions of the ruling labor party. While not all policies post-1945 withstand moral scrutiny, like eugenics programs including forced sterilization, some examined in this chapter have net positive societal outcomes. This chapter explores continuities in Norwegian tuberculosis healthcare reform across the occupation and war, focusing on reforms to the national tuberculosis law of 1900, the implementation of mass x-ray screening, and attempts to centralize the healthcare system's administrative sector, with doctors taking on leadership and policymaking roles.

Brochmann's legal reforms

The national tuberculosis law of 1900 would see changes in March of 1942. Directives by the Dr. Østrem and Dr. Brochmann made it so, every case of tuberculosis discovered required the Doctor who found it to report the case to central authorities. Furthermore, medical staff would also have to inspect the home situation and try to discover the circumstances in which

[314] Gogstad. *Helse og Hakekors*, 191.

the patient had become infected, and also test those in close proximity to the patient for tuberculosis through pirquet testing or x-ray screening.[315] By April 1942 the law was expanded to make x-ray screenings mandatory for Norwegians. A document found in the archives to all related departments as an announcement read thusly:

> According to the law of April 30, 1942, it is determined that the population is obliged to undergo X-ray photography in order to map out all lung tuberculosis in the country and thereby prevent the spread of infection. According to the old law, the obligation applies to all individuals over 15 years old and a fee of one Krone must be paid for the photography. The Ministry of the Interior has decided that the photography will first be initiated at all workplaces established in Norway as a result of the war. Therefore, all individuals over 15 years old involved in these workplaces are ordered to report for photography. An identification card (or passport, if available) must be brought for identification, otherwise, the individual may later be required to undergo photography again. Anyone who, without valid reason, fails to undergo X-ray photography will be fined according to the law, section 9 Ministry of the Interior, Health Department. Oslo, November 16, 1942. Th. Østrem.[316]

It should be noted, that these reforms were kept after the capitulation and repackaged under different laws in the years after the war, under even stricter legal reforms.[317] Paragraph 6 of the 1900 law was expanded, it could now legally restrict a tuberculosis afflicted person from going to or living in areas the Doctor considered a public health risk. This policy change was meant to make it illegal for the sick from going to work, where they could spread the disease to others. An example Brochmann had been fighting for, since the early 30's was fishermen with active tuberculosis going on small fishing vessels with others, and infecting them.[318] Old "loopholes" to forced admittance to a tuberculosis healthcare facility, such as the exemption on married couples were also removed. Reforms to the law would give the state enough power over patients that posed a public health risk to stop the spread of tuberculosis in the population, or so Brochmann believed. "- capable of carrying out the epidemiological work to the fullest extent. We have been given the weapons that will exterminate tuberculosis in the foreseeable future."[319]

[315] Gogstad. *Helse og Hakekors*, 242.
[316] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[317] Gogstad. *Helse og Hakekors*, 60.
[318] Ryymin. *Smitte, språk og kultur*, 197.
[319] Ryymin. *Smitte, språk og kultur*, 197.

The pre-war and post-war health director and tuberculosis inspector, Karl Evang and Otto Galtung Hansen respectively, were critical of the way the Germans had handled the health situation in Norway after the war, with Evang writing "German authorities initiated shockingly few precautions against diseases in Norway, and the Norwegian Nazi central health administration proved to be incompetent"[320] in 1947. His opinions of the overall effort to preserve the public health during the occupation was damning. Even still, his opinions of the changes initiated by Brochmann to the national tuberculosis law were such that both he and Hansen pushed for and ultimately kept many of the reforms after the war.[321] Hansen was particularly fond of the segments of the law that allowed to government to carry out mass x-ray examinations of the populace. Hansen called the legislation on tuberculosis "Signicant progress" [322] in 1945, and that; "The fact that the law has been heavily exploited in Nazi propaganda should not result in its nullification if it is practically sound"[323] Galtung Hansen also remarked about the x-ray screening program.

In 1947 the national tuberculosis law of 1942 was modified with minimal changes, according to Ryymin, making it effectively a copy of the 1942 reforms without the bitter reality of it being a law passed by the collaborationist Nasjonal Samling regime.[324] With the strong anti-Nasjonal Samling sentiment present in those who came to power immediately after the war, it does speak volumes to the perceived benefits of these legal reforms. Giving the health authorities the legal power in combatting the spread of tuberculosis had been a long-term ambition of many doctors, as well as social democrats, but the constraints built into a parliamentary system had, as by the very nature of being democratic, left the reformers without the political capital to make the changes a reality. A small but significant change that clearly shows this, was a law from 1935 that would see teachers under greater scrutiny when it came to tuberculosis, they could legally be dismissed from the school they worked at if they were perceived as being a health risk to the students. Brochmann's reforms broadened these rules to include any and all employees who worked within the school system.[325] In combination with the laws that mandated x-rays and tuberculosis tests, this was seen as a net positive in the pursuit of preserving public health by the post-war health authorities.

[320] Ryymin. *Smitte, språk og kultur*, 209.
[321] Ryymin. *Smitte, språk og kultur*, 220.
[322] Ryymin. *Smitte, språk og kultur*, 220.
[323] Ryymin. *Smitte, språk og kultur*, 220. Galtung Hansen
[324] Ryymin. *Smitte, språk og kultur*, 221.
[325] Ryymin. *Smitte, språk og kultur*, 198.

The history of x-ray and the use of mass x-ray screenings

The German scientist Wilhelm Conrad Røntgen discovered x-rays in 1895 and by 1898 its medical application was so well known that even Norway, with its modest budget got its first two x-ray machines. The first to operate these machines were doctors, alongside an assistant who often had a background in chemistry, photography or engineering and then later, nurses would take the x-rays.[326] These first 'pioneer' machines would today be considered crude and dangerous, as they operated with exposed high voltage, the potential to produce toxic gasses and the imagery's medical application was limited to bones. This obviously had huge benefits for doctors with patients with skeletal issues, but had no use for pneumatic tuberculosis. Hospitals country wide would acquire these machines but not sanatoriums. By the mid 1910's however, new machines and techniques allowed for more reliable study of the soft tissues of the lungs with x-ray imagery. It did not take long for wealthy private sanatoriums to purchase these machines, and add them to their arsenal, giving credence to the idea that the treatment offered was scientifically based. This initial first wave would later have some use in surgical treatment, but purely as a detection and diagnostic tool, x-rays did not do much as the patients at the elite sanatoriums had already been diagnosed with tuberculosis.[327]

What was conceived of for decades however, as a long-term ambition for medical workers deeply involved in combating tuberculosis was the idea of mass scale x-ray examinations of the population.[328] Plans in Norway, prior to the outbreak of the second world war, was to create a nationally encompassing registrar for people with tuberculosis. To do this, they would need to actually know who had tuberculosis, and to what severity of tuberculosis people had. By 1940 there were several ways to detect tuberculosis, but none gave the same level of insight to the condition of the patient or progression of the tubercule as an x-ray image of the patient's respiratory system.[329] If health authorities could somehow mass produce and make available x-ray tests across broad swaths of the population, and simultaneously gather the information into a national archive then they would have a better understanding of the public health situation, and could shape policy accordingly. The idea

[326] Egestad, "De første radiografene i Norge – yrkesvalget og utdannelsen," *Hold Pusten* (February 2021), URL: https://issuu.com/holdpusten.no/docs/hold_pusten_01_2021.
[327] Bynum, *Spitting Blood*, 202.
[328] Blom, *Feberens ville rose*, 136.
[329] Bynum, *Spitting Blood*, 200.

was simple in theory, but near impossible in execution when it was earliest conceived of. When x-ray machines that were able to detect 'shadows' on the lungs came into the market in the late 1910's, one of the first pioneering forces was the American military at the entry of the USA into the first world war. The idea was to do x-rays of drafted men, to ensure they did not carry active tuberculosis which posed a serious health risk in tight quarters on ships across the Atlantic, and in the trenches on the western front. Out of 3.8 million draftees examined, only a few thousand were ever examined via x-ray.[330] The reason was simply that in 1917 and 1918 the cost of x-rays was prohibitively expensive to do on a mass scale.[331] In Norway sanatoriums would begin to acquire their x-ray machines in the last half of the first world war, with delays due to the difficult war situation for Germany, which was the home of some of the most cutting-edge x-ray machine manufacturing at the time.[332] Attempts to do large scale x-ray screenings to detect tuberculosis among the populace remained out of reach, despite isolated attempts to do so. In New York, a city that had been on the forefront of public health initiatives concerning tuberculosis did a mass x-ray study of 150,000 people, but ultimately concluded that the technology should be used more sparingly.[333] The breakthrough to make mass x-ray screenings a viable government policy came from a scientific breakthrough in Rio de Janeiro, Brazil during a tuberculosis outbreak.[334] Tuberculosis, like in so many other places had followed the country's urbanization and industrialization to wreak havoc, in the same way it had in Europe and America when countries there went through the same transformation decades/centuries prior.[335] The breakthrough was discovered by one Manuel Dias de Abreu (1884-1962), a Brazilian physician, with a new method of using a fast camera lens in 35/50/100mm photograph of an x-ray image. Without getting too technical, the innovation made it much cheaper and easier to do x-rays.[336] This new method has many names in different countries, but for the sake of simplicity, the American and British term, 'Mass miniature radiography' is used. This new technology was quickly adapted into the more developed countries' healthcare systems, particularly Germany.

[330] Bynum, *Spitting Blood*, 202.
[331] Bynum, *Spitting Blood*, 202.
[332] Fjermeros, Landeskogen 100 år. 2016, 8.
[333] Bynum, *Spitting Blood*, 203.
[334] Bynum, *Spitting Blood*, 203.
[335] Bynum, *Spitting Blood*, 111.
[336] Bynum, *Spitting Blood*, 203.

Initial policies, like examining all students admitted to universities in Germany with x-rays[337] was expanded so that everyone within Germany had to comply to government mandated mass miniature radiography. One of the pioneers of this project was Professor for clinical radiology in Frankfurt am main, Hans Holfelder. Holfelder joined the NSDAP in 1933 and the SS shortly thereafter.[338] He established and became head of the SS X-ray unit, or SS-Röntgensturmbann, where they adopted the MMR technology to its fullest potential.[339] Holfelder devised a system of mobile trucks, outfitted with x-ray machines from siemens and a set of technicians who could travel wherever mass examinations should take place, the efficiency in the 1930's allowed his SS unit to examine approximately 2500 people a day.[340] A test case of mass screening was done in Mecklenburg, where around 650,000 people were examined in just 4 months.[341] By 1938 they screened 12000 men at the Nuremberg party congress.[342] Although tuberculosis detection was certainly a part of Holfelder's mission statement, a more clandestine mission was to map the racial hygiene of the German, and later conquered peoples. X-rays of people's skulls was done simultaneously as the lungs were examined, to look for supposed Aryan and non-Aryan markers in bone structure.[343]
The German propaganda apparatus never made mention of this of course, and touted loudly of Nazi successes in Mecklenburg, and elsewhere.[344] Norwegian health officials were aware of Holfelder's work in mass screening, and plans were in the conception stage prior to the invasion, but nowhere near the level of ambition. 100-200 elementary grade students and 9 private businesses were examined in a Norwegian trial attempt in 1939[345].

The creation of a Norwegian mass x-ray screening program

Purely by chance for the Norwegians, on the 9th of April 1940 Holfelder himself would be part of the invasion forces disembarking in Bergen. He would stay in Norway for the year and continue his medical work, and by early fall done a trial run of mass examinations of

[337] Silver, "The Decline of German Medicine," 64.
[338] M. Schmidt, T. Winzen, and D. Groß, "Hans Holfelder Und Der SS-Röntgensturmbann," Der Radiologe 57, no. 12 (2017): 1-2, https://doi.org/10.1007/s00117-017-0246-7.
[339] Schmidt, Winzen, and Groß, "Hans Holfelder," 57: 1
[340] Mathias Schmidt, Tina Winzen, and Dominik Groß, "The SS X-Ray Unit as an Instrument for 'Total Registration' and 'Race Selection'," Strahlentherapie Und Onkologie 191, no. 5 (2015): 438, https://doi.org/10.1007/s00066-014-0804-0.
[341] Schmidt, Winzen, and Groß, "The SS X-Ray Unit," 191:438
[342] Schmidt, Winzen, and Groß, "Hans Holfelder," 57: 1.
[343] Schmidt, Winzen, and Groß, "The SS X-Ray Unit," 191:438-439.
[344] Schmidt, Winzen, and Groß, "The SS X-Ray Unit," 191:438.
[345] Blom, *Feberens ville rose*, 139.

elementary school children in Bergen.[346] It is not known if these initial x-ray screenings included the study of "racial hygiene", as much of the archival material relating to the SS-Röntgensturmbann has been lost/not yet found.[347] The tuberculosis inspector, Dr. Galtung Hansen and a colleague Dr. Arne Bruusgård suggested to the Reichskommisar office that these mass screening projects should take place In Norway on a more permanent basis. Holfelder would step into the role of an expert advisor and the Germans and Norwegian health authorities would collaborate on the program. The collaboration between Hansen and Holfelder would be short lived, as by November of 1940 he was ousted from his position and replacements were made in favor of others on political grounds.[348] The plan then formulated by Holfelder, Østrem and Brochmann eventually envisioned four mobile x-ray machines on busses, with nine technicians each that could travel the country to examine roughly the same number of people as they had in Germany, between two to three thousand people in high population areas.[349] During the summer the four busses would travel the countryside and during winter they would do the screenings in the cities.[350] The Norwegian and Germans didn't agree on every aspect of the plan however. Of the parts that were disagreed upon were the point of making these x-ray examinations mandatory or not. The German authorities for their part, did not wish to make them mandatory, likely for political reasons as they did not want the program to be used in resistance propaganda efforts.[351] The Norwegian health authorities on the other hand, insisted it be made compulsory to be examined, with everyone apart from those too poor, made to pay one krone for the examination.[352] The new director of health, Dr. Østrem and the new tuberculosis inspector, Dr. Brochmann would expand upon plans to use Holfelder's methods of trucks. The plan was to examine 2.1 million people in the span of two years, with Brochmann wanting to initiate the program in Northern Norway, where he recognized the need was most pressing.[353] Brochmann also made political moves within the departments, to have his people ensure his x-ray program was based purely on tuberculosis detection, therefore had the greatest chance of succeeding in getting public approval. A letter from Brochmann's secretary to health Minister Østrem went as following:

[346] Gogstad. *Helse og Hakekors*, 238.
[347] Schmidt, Winzen, and Groß, "*Hans Holfelder*," 57:1074.
[348] Ryymin. *Smitte, språk og kultur*, 194.
[349] Gogstad. *Helse og Hakekors*, 238-239.
[350] Gogstad. *Helse og Hakekors*, 241.
[351] Gogstad. *Helse og Hakekors*, 240.
[352] Gogstad. *Helse og Hakekors*, 239.
[353] Ryymin. *Smitte, språk og kultur*, 200.

> Today, at the request of Chief Physician Brochmann, I had a phone call with Minister Hagelien, to request the Minister's permission to use the following phrase in writing and speech about our work: 'This work shall be conducted purely Norwegian, entirely non-political, solely on medical grounds.' The Minister asked me to submit this matter through you, so that he could also get your opinion. For your information, I already in the month of February, through the Chancellery, requested from the Prime Minister whether he agreed that the X-ray photography work should be carried out entirely non-politically. The Prime Minister agreed to this. Likewise, several senior party members have expressed the same. Therefore, I hope to have the permission of the Minister of the Interior and the Medical Director to use these words in addressing the broad public, which I believe will have such a significant impact on how the public will receive this work today. Thank you in advance for your kindness and help.[354]

The date on the post is also revealing, with how many years it took, from the plan's conception in 1940 to only a partial roll-out in 1942. The ambitious project came nowhere near Brochmann's goals of millions, as only 200,000 were examined using this method by the end of 1944.[355] The reason is tied to the lack of equipment and personnel and the slow start, though the increase in people examined was growing exponentially. The Norwegian technicians were sent to Germany for training[356], and the mobile x-rays were difficult to acquire due to the worsening war situation. Only by the spring of 1945 were all four vehicles actually in service.[357] The first two were only operational by May and October of 1942.[358] Overall, the Germans lent both their foremost expert in Holfelder, as well as manufactured the two first vehicles and the x-ray machines which they put at the disposal of the Norwegian employees, whose salaries were also paid by the German authorities.[359] While a comparatively small contribution in the grand scheme of things, as the German occupation was an overwhelmingly negative affair, this could still be seen as the beginning of something positive for the tuberculosis work, and the busses were kept in service after the war, though some were noted to be in poor condition. Ironically a reason for this was that the trucks were of sub-par quality intentionally, purchased very used so they wouldn't have to requisition vehicles from private persons as it was impossible to purchase new ones.[360]

---

[354] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003. Brochmann's secretary Esther Magnussen writing to Østrem, 21st of august 1943.
[355] Ryymin. *Smitte, språk og kultur*, 200.
[356] Gogstad. *Helse og Hakekors*, 242.
[357] Ryymin. *Smitte, språk og kultur*, 200.
[358] Ryymin. *Smitte, språk og kultur*, 200.
[359] Ryymin. *Smitte, språk og kultur*, 201.
[360] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.

Another step in this mass x-ray program was Brochmann's plans to greatly expand the number of stationary health centers with x-ray machinery that could be used in the detection and diagnosis work. He wanted the mobile vehicles to be put to use in the North first, but the transport difficulties and the time it took to make the x-ray busses operational meant that the North would have to expand its stationary x-ray infrastructure instead.[361] By the spring of 1942 Brochmann decided to increase the number of facilities with x-ray machines, so every reported case under the expanded national tuberculosis law of the same year could be realistically carried out. 58 new healthcare facilities, usually clinics, hospitals, already established tuberkulosehjem, etc. would be outfitted with x-ray machines to do x-rays on as many suspected cases as possible.[362] At the end of 1944 Brochmann reflected on the national tuberculosis project from 1942-1944. He considered his reforms mostly a success, and he wished to decentralize further, in terms of creating more stationary diagnosis facilities, but the conclusion of the war was nearing, and Brochmann would be dismissed the following year.

A personal example of active tuberculosis detection

The norwegian tuberculosis historian and author Dag Skogheim became a patient in the tuberculosis healthcare system during this time. His personal account in the book tæring gives valuable insight into how this system functioned in reality, and not just through its designers and directors far away in Oslo and Berlin.

The actual process of determining cases of tuberculosis could be a frustratingly long and arduous one. Skogheim's experiences with the disease began when he came down with a fever, accompanied soon after with a cough and bad sweats which lasted for days. He was fifteen years old and in good health, but influenza plagued him over the new year 1942-1943.[363] He got better but a sense of being unwell lingered. His mother began to suspect something and called for the municipal doctor who examined him. He was told he needed to have his lungs examined with x-ray imagery. This would mean traveling from his small settlement in Brønnøysund in Nordland to Sandensjøen, a trip only sixty-four kilometers as

[361] Ryymin. Smitte, språk og kultur, 201.
[362] Ryymin. Smitte, språk og kultur, 201.
[363] Skogheim, *Tæring*, 20.

the crow flies. Already by 1940 there were restrictions on Norwegians freedom of movement. They could not travel more than fifty kilometers without explicit permission from the police.[364] In Sandensjøen he encountered other sickly people, struggling with breathing and being hurried into a dark room at the local hospital where an x-ray was taken. He was then referred to Namdal Helseheim, which had a doctor who was a lung specialist. The Helseheim was a tuberkulosehjem rather than a fully-fledged sanatorium. It did have x-ray machine, as well as a doctor who was a lung specialist. There they took blood samples and another x-ray. The doctor listened to his lungs, and he found himself among a dozen or so others being examined that day. He was told he had enlarged lymph nodes in the lungs and to go home for rest. He was asked to return for a check-up three months later. This sort of check-up continued a few times over, until he was found to carry active tuberculosis and was admitted into the sanatorium system for treatment. Skogheim's experiences does not reflect the new work done in tuberculosis healthcare, wherein the system would try to detect cases by mass testing people at schools or businesses,[365] but it does show how x-rays were used many times over, to know exactly when the patient exhibited active tuberculosis and posed a public health risk, for then to be admitted into the sanatorium system. This new more rigorous use of x-ray imagery to track the patient's disease progression, to avoid mistakes of the past where patients had been institutionalized at a young age, and spent decades in the system, even during times they didn't pose a public health risk. It was these patients Brochmann didn't want to see during his tenure as national tuberculosis inspector, be made into what he saw as effectively social welfare recipients in a system meant to eradicate tuberculosis.

Axis and Allied x-ray propaganda

Because a mass screening program required mass cooperation by the civilian population, propaganda was carefully disseminated to ensure compliance. Strong efforts were made at the end of 1943 as the mass X-ray program was set to be rolled out nationally. On 1st November, the collaborationist government's propaganda tool, Filmavisen, a newspaper in movie form, featured a segment on mass X-ray screenings. "The most effective tool in the fight against tuberculosis is now in use. All adult women and men shall now be x-rayed!" the segment began. It further explained that those with healthy lungs would have their images stored in

[364] Skogheim, *Tæring*, 24.
[365] Blom, *Feberens ville rose*, 139.

archives, while cases with suspect X-ray images would be further examined by the local medical board.[366]Brochmann, aware that his X-ray program hinged on public support, personally devised a propaganda program ahead of any scheduled mass X-ray screening site. Documents from the central offices in Oslo, Tuberkulosekontoret, show Brochmann issuing clear instructions to the nation's local and national newspapers on publicizing upcoming mass X-ray screenings.[367] The campaign comprised four articles, with the first published in local newspapers two weeks before the screening. "A decisive battle in the fight against tuberculosis!" [368] announced the new law passed in 1942, requiring all adults over 15 to undergo chest X-rays. The article outlined the program's details, perhaps to reassure the public of its benign intentions. The second article, published a week before the screening, was titled "The entire people on x-ray. X-ray cars on the way here. Now we're all going to help defeat tuberculosis once and for all."[369] It provided information on Norway's fight against tuberculosis, divided into four categories, including environmental investigation and diagnostic stations. "Also here we use x-ray. The fight against tuberculosis is in the big picture a question of x-ray,"[370] the article emphasized. It also referred to the national tuberculosis law, highlighting the disease's public nature and the requirement for regular medical checkups. Another important element was the national tuberculosis law, which argued the disease was not an individual concern but a public one. "This kind of disease is not a private matter"[371], it further argued that people were mandated to show for medical checkups whenever and however many times the lung specialists saw fit.

The word 'lung specialist' was deliberately used instead of 'doctor', possibly eluding back to an internal conflict between Holfelder and Brochmann, where Brochmann advocated for the program to be led by lung specialists exclusively, like himself, rather than general practitioners or doctors with other specializations.[372] The third article, to be published three days prior to the screening, announced that all sources of infection of tuberculosis would be found through X-ray. "ALL SOURCES OF INFECTION FOR TUBERCULOSIS SHALL BE FOUND THROUGH X-RAY EXAMINATION"[373] The article focuses on Norwegian

[366] "Filmavisen 1. november 1943," NRK, TV, accessed 2023, https://tv.nrk.no/serie/filmavisen/1943/FMAA43006843/avspiller.
[367] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[368] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[369] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[370] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[371] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[372] Gogstad. *Helse og Hakekors*, 240.
[373] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.

history concerning the use of X-rays in the battle against tuberculosis. It serves as an important propaganda piece, trying to depict a long and honorable tradition of such work in Norway. This is exemplified by a royal decree issued on 1st October 1937 by the King of Norway, mandating X-ray examinations for workers in the mining industry to check for tuberculosis.[374] The article also aims to garner public trust and support by highlighting the involvement of organizations like Norske Kvinners Sanitetsforening, Nasjonalforeningen, and the Red Cross in this initiative.[375] Furthermore, the article elaborates on the project's motto "A healthy population - it concerns you and yours - yes, each one of us."[376] In the fourth and final article, meant to be in the newspaper, the day before or on the day of the mass screening we see an increase in urgency in the language, trying to motivate people to show up for the good of the public health, linking it to a civil duty.

TODAY THE X-RAY CAR HAS ARRIVED (LOCATION) AND WE ALL DO OUR DUTY – TO OURSELVES.

> Now it's our turn. Now the X-ray van has arrived on its nationwide tour, or perhaps we should rather call it a battle campaign. Because it is a battle campaign, the action our central health authorities, the Ministry of the Interior's health department, have launched to combat the white plague, to eradicate the tuberculosis contagion. According to the law, it is our duty to go, both men and women, and have ourselves X-rayed. But even if this duty was not anchored in this law, no normal person would surely refrain from feeling it as their duty to participate in mapping the country's sources of tuberculosis. Yes, now in wartime with the nutritional conditions we have, such mapping is absolutely necessary work considering the future of our youth and our people.[377]

The article further explains that individuals who refuse to undergo X-ray examinations could face fines. Notably, the article does not mention the Germans, and only a few previous articles referred to Holfelder's initial X-ray screening in Norway, among a list of other milestones. This omission appears to be a deliberate propaganda strategy, aiming to dissociate the project from Germany and the Nazis. Additionally, the article concludes by highlighting similar efforts underway in neutral Sweden.

> It might interest the public that the Swedish authorities are now in full swing with the X-ray photography screening of the Swedish population. The first systematic photography screening took place in Gotland. The turnout was 100 percent; even old men over 90 attended with interest and were photographed because they were aware

[374] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[375] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[376] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[377] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.

> of the significant importance of mapping tuberculosis contagion. Illuminate the land also with X-rays[378]

Researching the national library's archives revealed that directives from Brochmann closely followed the instructions almost word for word.[379] In an ironic twist, Hansen, Brochmann's successor, encountered the same propaganda issue. They both grappled with how to ensure the public did not associate mass X-ray screening, where the government ostensibly had everyone's lung X-rays on file, with Nazism and Germany. This concern came to light when Dr. Thor Narvestad's speech about continuing the X-ray program suggested the Germans might have accessed the X-ray image archive had it been available to them. His comments, reported by the newspaper Folket's Røst in August, prompted frustration at the Central x-ray office. [380] An internal memo lamented, Such a misleading presentation of the X-ray photography project, as at least the description of the lecture indicates, is likely to greatly damage the ongoing work."[381] The memo also attributed the low turnout at the X-ray screening, with only 1,300 of the expected 3,000 attending, to this Nazi connection. Narvestad defended his speech in a memo, arguing he intended to create "good propaganda" for the screening program. [382] Evidently, both sides were keen to avoid any impression that the program was linked with the Germans. Even Brochmann avoided mentioning Nasjonal Samling, probably knowing it would 'poison the well' with the Norwegian public, who harbored negative views of the collaborationist government during the war. In this context, the medical efficacy of the X-ray screening program remained a priority for both Brochmann during the war and Hansen afterward.

Centralization and Technocratic reforms

The last of the three 'positives' affecting the Norwegian tuberculosis healthcare system was a long-desired concept by Evang and other reformers. Prof. Ole Berg, in his 2009 report to the Norwegian health directory, discussed two "medicratic"[383] systems.[384] One was associated with the government in exile in London, preparing for Norway's independence post-Allied

---

[378] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[379] Alle smittekilder for tuberkulose skal finnes gjennom skjermbildefotograferingen," *Østlandets Blad*, January 30, 1945, https://www.nb.no/items/676657d84f56eb9fd4ed0aaa156b040c?page=1&searchText=brochmann]. "Hele folket på skjermbilde. Røntgenbilene på vegen hit," *Østlandets Blad*, January 16, 1945, https://www.nb.no/items/5b825e226a2a18cb29c44b5500a2c02b?page=0&searchText=brochmann.
[380] "Folkets Røst," August 30, 1945, National Library of Norway, accessed 2023, https://www.nb.no/items/URN:NBN:no-nb_digavis_folketsroestaskim_null_null_19450830_27_27_1.
[381] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.
[382] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003
[383] Medicratic, a technocratic system where medical personnel are in charge.
[384] Berg, "Spesialisering og Profesjonalisering,", 118.

victory.[385] Both Social Democrats and the dynamism of Nazism agreed on a more technocratically oriented healthcare. In the 1930s, Norwegian doctors called for system reforms[386], while in Germany, doctors became integral to the system under Nazism.[387] Some reforms brought by the occupation forces under Terboven, like a centralized healthcare directory managed by medically trained individuals, were carried over by Karl Evang. This healthcare structure persisted in Norway until at least the 1980s.[388] The dictatorial hierarchy inherent in national socialism, with its Führerprinzip[389], did not continue under the social democratic government in 1945, but the technocratic and centralization aspects did. However, it's not accurate to say Evang or the labor government drew inspiration from the Nazis; rather, it was the American healthcare system, emphasizing doctors' involvement in administration, that influenced Evang's post-war reforms.[390] Upon reinstatement, Evang kept some of the administrative structures left behind by the collaborationist healthcare administration of Østrem, retaining components aligning with his political goals. A significant debate within the exile government was over nullifying all reforms made during the occupation upon liberation, including the merging of healthcare compartments, which allowed economists and lawyers significant influence over healthcare policies. Evang and his reformist allies ensured these changes in favor of a technocratic form of healthcare administration were maintained, and many structural changes in the healthcare sector echoed Evang's suggestions from 1938.[391]

[385] Berg, "Spesialisering og Profesjonalisering,", 124.
[386] Berg, "Spesialisering og Profesjonalisering,", 122.
[387] Silver, "The Decline of German Medicine,", 57-58.
[388] Berg, "Spesialisering og Profesjonalisering,", 10-12.
[389] Leader principle, dictatorial.
[390] Berg, "Spesialisering og Profesjonalisering,", 122.
[391] Berg, "Spesialisering og Profesjonalisering,", 128.

Chapter seven

Hiding, Organizing and Resisting during the occupation

This chapter explores how the tuberculosis healthcare system became a refuge for those escaping persecution and how the fear of tuberculosis helped conceal such individuals from the Germans. It also examines the attempts of patients in Norway to form an interest group for tuberculosis patients, which were met with threats by the government. Additionally, the chapter looks at how Norske Kvinners Sanitetsforening, the largest women's organization in Norway, managed to avoid being shut down or taken over by the collaborationist government.

Tuberculosis healthcare and the holocaust

The extreme antisemitism of the Nazis was a steadily evolving process during Hitler's time in power. From excluding Jewish individuals from education, economic, and societal opportunities, subjecting them to second-class citizenry, to discriminating against people of Jewish descent at every level of German society and ultimately attempting to destroy them. First, in chaotic sporadic bursts of violence, and then in the largest ethnic extermination program in history known as the "final solution."[392] The Nazis sought to annihilate this group of people, along with others wherever they were able to. Interestingly enough, the Norwegian healthcare system would play a pivotal role in saving people of Jewish descent, whom the Nazis sought to deport from Norway to exterminate in their concentration camps on the European mainland.

In Norway, there lived around 2,100 Jews in 1940.[393] Antisemitism existed in Norway, but it was not as virulent as in Germany. The first initial action carried out against the Jews in Norway was to ban the ownership of radios in Jewish homes in May 1940,[394] a ban that wouldn't affect the rest of the country until the following year, when the Germans learned that most Norwegians who owned a radio would listen to news from England instead of

[392] Gogstad, *Helse og Hakekors*, 180.
[393] Bjarte Bruland, "Deportasjonen av de norske jødene," *Norgeshistorie*, 2015, URL: https://www.norgeshistorie.no/andre-verdenskrig/1742-deportasjonen-av-de-norske-jodene.html.
[394] Gogstad, *Helse og Hakekors*, 183.

Norwegian propaganda for information. Jews were then subject to more restrictions and discrimination such as having to be registered with a red 'J' in their identification papers, as was the practice in Germany.[395] People in the lands conquered in the east of the Third Reich were treated inhumanely, civilians being subjected to unrestrained violence by the Nazis. Polish Jews were gathered up in ghettos and concentration camps. The invasion of the Soviet Union would make Nazi efforts even more extreme, with pogroms and mass killings in the lands the German war machine swept through. As Hitler's dreams of a quick victory in 1941 did not materialize, despite substantial German successes on the battlefield, the Soviets doggedly held on. With America also joining the war in December of 1941, the question of 'the Jewish problem' became more pressing for the Nazis, who held a substantial number across their vast conquered territories, including Nazi Germany itself. The decision to create an industrial-scale extermination program was made at the Wannsee conference in January 1942. [396] Every person of Jewish descent was to be killed or enslaved wherever the Nazis could get ahold of them. Norway's comparatively tiny Jewish community would be included in the plans. The plan involved the deportation of Jews from Norway, and then to kill them in the concentration camps in Poland. On the 26th of October 1942, Jewish men above the age of fifteen were to be arrested across Norway by Norwegian police and brought to Berg internment camp, in Tønsberg. [397] A month later, Jewish women and children were also arrested and brought to the transport ship Donau in Oslo harbor. In February 1943, a larger ship, Gotenland, was used to deport Jews. Of the 773 who were deported, only 38 would survive the Holocaust.[398]

Historian Kåre Olsen studied the phenomenon of Jews hiding in hospitals, sanatoriums, and psychiatric hospitals throughout the war. His findings were that during the deportation, upwards of 170 Jews hid within the Norwegian healthcare system, often with a fabricated diagnosis with the help of their doctor to avoid arrest and deportation. Most went to regular hospitals within the cities since they were the closest available. Some of these Jews would be admitted for a few days and then find an opportunity to be smuggled out of the country across the border to Sweden. The reason regular hospitals were favored over sanatoriums and

[395] Bjarte Bruland, "Deportasjonen av de norske jødene," *Norgeshistorie*, 2015, URL: https://www.norgeshistorie.no/andre-verdenskrig/1742-deportasjonen-av-de-norske-jodene.html.
[396] Gogstad, *Helse og Hakekors*, 180.
[397] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 11.
[398] Bjarte Bruland, "Deportasjonen av de norske jødene," *Norgeshistorie*, 2015, URL: https://www.norgeshistorie.no/andre-verdenskrig/1742-deportasjonen-av-de-norske-jodene.html.

tuberkulosehjem, Olsen argues, is the fact that most tuberculosis healthcare infrastructure was built in remote areas. The Jewish population in Norway was almost exclusively living in the larger cities, making the trip to the sanatoriums too difficult on such short notice in the panic of October 1942.[399]

There were, however, six instances where Jews were admitted to sanatoriums and tuberkulosehjem. Four of these patients had their diagnosis fabricated, to make it appear that they carried dangerous infectious tuberculosis. [400] The reason admittance on medical grounds was possible in Norway as a means to escape deportation was that the Germans wanted this to be done swiftly and without violence. If it was carried out in a brutal, very public operation that didn't seem to abide by legal norms and standards, then it would be a propaganda coup for the resistance movement and might turn the civilian population more strongly against the Nazis. Because there are so few cases, a few of them will be explored in detail to reveal how this use of tuberculosis healthcare could be used to escape the Holocaust.

The first case was one Hugo Adler, a Jewish doctor from Czechoslovakia who used to be the director of the country's largest sanatorium, with 350+ beds. He was a known and respected tuberculosis researcher at the time and was given permission to come to Norway as a refugee in 1939 and began working at the comparatively modest Talvik tuberkulosehjem in Finnmark, with 33 beds[401], as an assistant doctor.[402] This was not a popular posting, in the most remote part of Norway and not in any of the prestigious sanatoriums, so no Norwegian doctor wanted the job. In August of 1940, Reichskommissar Terboven was made aware there were Jewish doctors working in Norway. He called on the Norwegian collaborationist government representative to consider his removal. The Norwegian government, in turn, came to the defense of Adler's position at Talvik, arguing the loss of such an expert on tuberculosis would damage the fight against tuberculosis in Northern Norway.[403]

In November of 1940, as Doctor Østrem was put in charge of the newly formed Helsedirektoratet under the Interior Ministry, the protective efforts over some Jewish doctors ceased. By December, Doctor Adler lost his right to practice medicine in Norway. Despite

[399] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 63.
[400] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 63.
[401] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1941* (Oslo: Kommisjon hos H. Aschehoug & Co., 1946), 87, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[402] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 64.
[403] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 64.

this, he continued his work at Talvik until the arrest order in October 1942. The reason, as Olsen writes, is unclear, but from what is revealed about the medical situation at the time, and considering it was impossible to find a Norwegian doctor willing to work at Talvik before the doctor shortage that began in 1941, it's highly probable that the local collaborationist government was pragmatic enough to let him remain at his post or risk losing a tuberculosis doctor they could not afford to lose.[404]

When Adler was arrested in 1942, he was brought to the town of Hammerfest, where, due to concerns over tuberculosis, the Wehrmacht had him examined by a German doctor. By sheer good fortune for Adler, this German doctor turned out to be an old colleague of his. Through a suggestion by his wife, Zdenka Adler (who came along but was not Jewish), the German doctor was convinced to assist his former colleague in faking a tuberculosis diagnosis, and for him to be sent back to Talvik. A Norwegian doctor at the hospital in Hammerfest also helped in this effort. After conferring with the Norwegian state police in Oslo, it was decided that Doctor Adler should be returned to Talvik Tuberkulosehjem. The danger of transporting someone with infectious tuberculosis was likely seen as too great. When the state police continued to send requests for his arrest and transport south, the Doctor at Talvik confirmed the diagnosis by the other doctors and made it seem even more severe.[405]

Adler was then left at Talvik, though in reality he simply returned to his work as a doctor. According to witnesses, former patients and the staff it was an open secret. “Everyone knew that Doctor Adler was a Jew. And that he from fall of 1942 was here as a pro forma tuberculosis patient. In the evenings and during the night however, he worked at the x-ray room and the laboratory”[406], a former patient at Talvik recalled, giving the impression that Doctor Adler’s secret was not so secret after all.

> The new patient was well taken care of by both head nurse Laila and the others. He had received one of the nurses’ rooms. During the day he stayed in the room when the Germans were nearby. In the evenings he worked in the office, and in difficult cases with the patients he was often called on by the senior physician. Each time the Germans came asking for him, they were told he was very sick. When German doctors came to examine him, he was running a high fever. It was later said that the

[404] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 65.
[405] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 69.
[406] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 68. Arvid Johansen, former patient at Talvik

> doctors used to give him shots to make him warm. It was also said that they manipulated his fever and the thermometer[407]

Most of the patients and all of the staff at Talvik knew this was a ruse, yet despite this, nobody ratted out Doctor Adler to the authorities. A third account involved a young Doctor Gustav Vig, twenty-eight years old when he arrived at Talvik Tuberkulosehjem in February of 1944. He learned that there were not just one, as the official records stated, but two doctors at Talvik. When he had a conversation with a German doctor stationed in Hammerfest, he came under the impression that the German doctor was in on the ruse.

> He chuckled and said, oh yes, he knew. It was he who had seen the x-ray images and examined the information from Talvik. There is no doubt that this doctor, he told me he was Austrian, that he was fully aware that Adler's tuberculosis diagnosis was made up, and that what you could see on the x-ray images were old. There is no doubt that he was fully aware, because the way he spoke about this left no room for doubt. He didn't say it outright, he didn't dare, but more indirectly. He couldn't say it. He did accept everything from Talvik even when he knew it was a lie.[408]

In the fall of 1944, Talvik Tuberkulosehjem, along with all of Finnmark, was evacuated by the Germans due to the Soviet advance into Norway. Adler, his wife, and their two children were brought to Trondheim. The intention was to transport them further south, to Oslo, but the Norwegian resistance movement, in coordination with Norwegian doctors who were colleagues of Adler, managed to smuggle him and his family out of the country and into Sweden. They survived the war and later moved to Israel.[409]

A second Jewish man who avoided deportation was Isak Eidenbom, a businessman from Bergen. He was living in Sogn og Fjordane in October of 1942, and when the arrest order came through to gather all Jewish men on the 26th, Eidenbom immediately went to Lyster Sanatorium and requested admission. The doctors quickly created a medical chart and manipulated X-ray images to make it appear that he had a severe case of infectious tuberculosis in the lungs. His medical journal entry on the 27th read, "In the lower 1/3 of the

[407] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 68. Patient Giertude Giæver
[408] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 69. Dr. Gustav Vik, recalling a conversation with a German doctor
[409] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 70.

lung a 4x6 cm large blurry shadow is seen"[410] which reveals the quick way the doctors at Lyster acted to ensure he could remain there.

The German authorities were well aware of Eidenbom's location as a patient at Lyster Sanatorium but, due to him being an infectious tuberculosis patient, they decided to leave him be. 'The disease will claim him anyway' was likely their thinking. For two and a half years, the sanatorium was home to Isak, who was often seen smoking his pipe and enjoying the tranquil scenery around the sanatorium, lodged on the side of the Sognefjord, tucked away in what was described as an oasis in the desert.[411] This description is fitting, as Western Norway had very little Nasjonal Samling representation among doctors, and substantial underground resistance activity took place in the remote, mountainous regions and fjords in the west.[412]

When Germans approached the sanatorium, the medical staff were given a fifteen-minute warning, and Isak was rushed to his bed and given pig's blood to drink. This way, if the Germans were to approach him, they'd see the blood and immediately turn away at the doorway. Monthly updates to his condition were meticulously written down to maintain appearances.[413]

The state police requested the director at Lyster to inform them well in advance if Eidenbom was to be discharged or felt better. The director, in turn, insisted the patient's infectious tuberculosis meant he was too sick to move and was a health risk for everyone around him.[414] For nearly two and a half years, this ruse, similar to the Adler one, was maintained by the doctors, staff, and other patients. Eidenbom had one great scare, however, in 1945, as patient Bjørn Simonnæs recalls when the Wehrmacht stormed the sanatorium in search of resistance fighters, while Isak and himself feared they were the ones the Germans were looking for.

> One day Eidenbom and I were taking a walk together in the large pine forest and he tells me about holocaust, one of the doctors comes running. He was red in the face and sweaty and clearly very anxious. He asks us to hurry back into bed. A message has arrived that trucks with German soldiers are on their way to the sanatorium. We barely manage to get inside, we throw off our clothes and get into our beds. Armed

[410] Olsen. *Jødene som ble innlagt i sykehus for å unngå deportasjon*, 73.
[411] Olsen. Jødene som ble innlagt i sykehus for å unngå deportasjon, 73.
[412] Gogstad. Slange og Sverd, 167-168.
[413] Olsen. Jødene som ble innlagt i sykehus for å unngå deportasjon, 74.
[414] Olsen. Jødene som ble innlagt i sykehus for å unngå deportasjon, 75.

> soldiers surround the entire sanatorium. They barge into the hallways and rooms while the nurses quickly make us some nice fever charts for us two. But the hunt is not for us. Rumors tell of snitching on people from Bjørn West. – The guerilla army west of here.[415]

Simonnæs had been sick with tuberculosis, but he was supposed to serve a five-year sentence for attempting to travel to England. His prison sentence in Germany had been cut short when he'd contracted tuberculosis, and was sent back to Norway to recover in a sanatorium. When he got better, his condition was made to appear bad so he could stay at Lyster, thus his situation was similar to Eidenbom's[416] A week after Germany capitulated, Eidenbom was discharged, his medical journals made it clear he never had tuberculosis and that his condition was made to look genuine.

There were, as stated 4 other cases of Jewish people who the Germans sought to deport through the help of the Norwegian police. There is a good chance other people, persecuted by the Nazis for ethnic or political reasons found themselves in Norway's tuberculosis healthcare system. This interview done with a maid who worked at the sanatorium does indicate that, that is the case. "We had a few refugees from 'Sweden'. In reality they were from Austria. We called one of them for 'Wien'"[417]

For the four other known Jews, however, their stories are also interesting. The common denominator is that the medical staff at the sanatoriums and tuberkulosehjem did what they could to help shield them, while those tasked with their apprehension were hesitant to act. The prevalent fear of tuberculosis in the 1940s is likely the most significant reason for this. A doctor at Vardåsen Tuberkulosehjem wrote after the war on this topic: "There weren't too many who sought cover at Vardåsen, but because of this that cover was relatively good. There was a certain level of respect for the tuberculosis germ, even among the gestapo."[418]

[415] Olsen. Jødene som ble innlagt i sykehus for å unngå deportasjon, 72. Bjørn Simonnæs
[416] Olsen. Jødene som ble innlagt i sykehus for å unngå deportasjon, 72-73.
[417] Seiersten, Nørstebø. *Ikke bare glitter på Glittre*, 17. Interview with Glittre sanatorium employee Grethe Davidson.
[418] Olsen. Jødene som ble innlagt i sykehus for å unngå deportasjon, 82. Dr. Alexander Tuxen

Tuberculosis Patients organize

Tuberculosis was not just a disease that killed thousands every year, but it also left many more thousands bedridden for what could be decades. In many cases, patients who had finally left the sanatorium system, free of active tuberculosis, were left crippled after invasive surgical procedures. The challenges of reintegration into mainstream society for these individuals can bear a striking resemblance to the experiences of long-term ex-convicts adapting to life outside prison after serving their sentences. Added to this were the health issues the former patients had, and the stigma associated with tuberculosis, which was very prevalent by the 1940s.

Even those who were patients within the tuberculosis healthcare system had difficulty adjusting to a life where they were stripped of agency and liberties. A strict hierarchy prevailed within the sanatoriums, where the director had the authority to issue directives and establish rules to maintain social order.[419] Treatment methods the patients had to endure were also entirely at the discretion of the doctors. Tuberculosis had been the disease that captured public imagination to act, with organizations like Nasjonalforeningen and Norske Kvinners Sanitetsforening doing what they could, but a group that was never represented by an organization or given a voice of their own were the actual tuberculosis patients. This would change during the war, beginning with a reader's letter to one of the country's newspapers, Morgenposten, which published it on July 21st, 1943.[420] It was a call to action for alienated tuberculosis patients to organize and lobby for rights such as benefits for those afflicted, so they would not have to live in severe poverty once discharged from the tuberculosis healthcare system. The author of this letter was Ragnar Strøm, a long-term tuberculosis patient who, in his many years in different sanatoriums and hospitals in the Oslo area, had made contacts with patients and healthcare workers.[421] A few months afterward, he held a meeting with four others in a small church in Oslo, where on October 14th they decided to form an organization for the tuberculosis afflicted, called Tuberkuløses Hjelpeorganisasjon, or THO for short.[422] Two of the goals of the organization would be to try to secure the aforementioned sick benefits and also, to create special vocational schools so tuberculosis

[419] Bynum, *Spitting Blood*, 145.
[420] "Morgenposten." July 21, 1943. Accessed 2023 https://www.nb.no/items/bef49d319e2c4d8d66eb341c153a7e42?page=3&searchText=ragnar%20str%C3%B8m.
[421] Skogheim, *Gå foran, vis vei!,* 1993, 34.
[422] Skogheim, *Gå foran, vis vei!,* 1993, 37.

patients could more easily find work once they had been discharged from the tuberculosis healthcare system. This problem, of former patients well enough to not pose a public health risk, but at the same time either unable to find work for health or stigma reasons. Poverty and poor living conditions often brought the disease back, and then the patient returned to the sanatorium sicker than they had left it. Glittre Sanatorium had built a "worker's sanatorium" where this category of patient, for one reason or another unable to return to normal life outside of the system but healthy enough to be able to work, was put into a productive role. This was a pet project of Glittre's sanatorium director prior to Brochmann, Dr. Neumann.[423] It was just that though, a pet project with room for less than twenty patients.[424] The THO would meet in different locales around Oslo, and through letters and word of mouth, spread their message through the tuberculosis healthcare system – Helseheims, Tuberkulosehjem, Sanatoriums, tuberculosis wards in hospitals – anywhere the afflicted might reside. Interest was big, and in the first year, they amassed 160 members.[425] A senior doctor at Grefsen Sanatorium in Oslo, Margrethe Folkestad, lent her support and expertise to the organization, and a growing number of non-tuberculosis afflicted also joined the following year. In 1944, the organization began to grow outside of Oslo, but a problem arose when healthcare facilities far beyond Oslo requested more information about THO, as travel restrictions meant no representative from Oslo could travel further than fifty kilometers from their hometown/city, meaning everything had to be done by letters. [426] Travel permissions could be obtained from the police, in some cases, but the war-time restrictions on travel hampered the information campaign significantly. Another, far more alarming threat would emerge in March 1944: a letter from a tuberculosis patient residing at Glittre Sanatorium.

> I hear that you have already begun recruiting members, and I find that such a private charity organization will not lead to any significant results for those who have been ill with tuberculosis, I also find that the said organization has no justification. The tasks that you will undertake can and must be solved by the already existing organizations and the state collectively. I expect your response within five days from today. If I haven't heard anything by that time, the matter will be resolved in another way.
> F.T. Glittre Sanatorium, Hakadal, on March 23, 1944. Heil og sæl[427]. Theo Hansen.[428]

[423] Seiersten, Nørstebø. *Ikke bare glitter på Glittre*, 19.
[424] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1945* (Oslo: Kommisjon hos H. Aschehoug & Co., 1949), 286, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[425] Skogheim, *Gå foran, vis vei!,* 38.
[426] Skogheim, *Gå foran, vis vei!,* 39-41.
[427] Heil og sæl (healthy and happy in old Nordic Viking language) NS Norwegian version of the German Sieg Heil.
[428] Skogheim, *Gå foran, vis vei!,* 43.

The meeting in which the letter was read, ironically, also included another letter with a tally of how many members THO had acquired from Glittre Sanatorium: 164. If all of these 164 were exclusively tuberculosis patients, then that would mean a vast majority of the 180+ patients residing at Glittre and its accompanying worker institution had joined THO in 1944.[429] This is something Theo Hansen must not have appreciated, given the political will to organize among his fellow patients in a national socialist state. Skogheim speculates about a connection between Hansen and the director of Glittre, Brochmann, but no evidence has been found to tie the two, besides party affiliation.[430] Perhaps Brochmann didn't want yet another charitable organization that would put focus on the social and not the epidemiological aspect of the fight against tuberculosis? Regardless of what the case may be, THO disregarded the first letter and continued to grow as an organization, spreading their message and attaining members across the nation. That was until two months later, on May 5th, 1944, when the THO offices in Oslo received a second letter. This letter outlined the 'problematic' elements of the organization in bullet point format, detailing all the ways the organization was illegal in the eyes of the government, and warned that if they did not cease operations immediately, they would face serious repercussions and involvement from the state police.

> I acknowledge receival of your letter dated 29.03.44 and noted its contents. Your letter with its enclosures has only confirmed my belief that the entire plan with the aforementioned organization, despite the beautiful intentions that possibly lies behind it, has no real basis and will not lead to any substantial assistance for the sick. I would like to emphasize the following:
> a. All associations with an official character must be approved by the authorities, in this case, by the Ministry of the Interior. You have not obtained such approval, and therefore, you are operating unlawfully.
>
> b. You are not allowed to use the term 'Hjelpeorganisasjon'. Only NSH[431] has the right to that name.
>
> c. Regarding a questionnaire sent out these days, I note that you have created your own membership badge. I want to point out the outrageousness of organizing a separate association for one group of sick individuals. This is diametrically opposed to the NS view on healthcare and social policy.
>
> d. From the newspaper clippings you sent me, I see, among other things, an article that I will quote from the first part: 'To the state health inspector, Chief Physician Sophus W. Brochmann. In response to your explanation regarding the social support

[429] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1945*, 286, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[430] Skogheim, *Gå foran, vis vei!,* 43-44.
[431] NS Hjelpeorganisasjon – Nasjonal samling Aid organization

for tuberculosis patients, I wish to express a few comments. It may well be that you cannot endorse the idea of vocational schools for tuberculosis patients, but that does not mean the plan will be abandoned. On the contrary, the work will be expedited, and your rationale for rejecting the matter only demonstrates that you do not fully understand how the idea is to be implemented for the benefit of society.' This is the height of audacity and impudence. You disregard the opinion of the state's representative and, for this reason, you and your allies intend to 'push the matter forward.' - No, that sort of conduct is unacceptable today. Both you and others should swiftly recognize that we no longer live in the so-called 'good old days,' when everyone could do whatever they wished.

e. In your letter to me, you claim that my opinion is in conflict with the overwhelming majority of tuberculosis sufferers and a significant portion of medical authorities. What you and your majority of tuberculosis sufferers believe, as well as the so-called authorities, is irrelevant. What matters today and in the future concerning a matter like this is the National Socialist perspective on health and social policy. What this entails can be understood by studying the NS program and a National Socialist worldview in general. I would just like to point out here that the responsible authorities are working on restructuring health and social legislation. When this is put into practice, the tuberculosis patients will also receive the necessary support and help, which we believe society is obligated to provide. I shall refrain from further elaboration here, but the conclusion is that you and your colleagues shall halt operations based on your current approach. Therefore, you are requested to immediately recall all distributed materials and notify that, due to various circumstances, the matter will not be resolved as previously claimed. To prevent the undoubtedly good intentions of you and your colleagues, and possibly the ability to make an effort for the benefit of tuberculosis patients, from being wasted, I would ask you to establish contact with the Nasjonalforeningen mot Tuberkulose and offer them your labor. For instance, they can put you in position to lead a nationwide campaign among tuberculosis patients for convalescent centers. . . . I hope you are clear about the situation, and I must mention that if, against all warnings, you still try to push forward with the issue, the State Police will immediately intervene and take care of both you and your colleagues, including, among other things, inciting opposition against the state authorities in writing and speech. I await your response by May 15, 1944.

F.T. Glittre Sanatorium, Hakadal, May 5, 1944 Heil og sæl. Theo Hansen[432]

After receiving this second, more threatening letter and consulting with a lawyer, the THO realized they were at an impasse. One member wished to continue the work they had laid out, even at the risk of arrest. However, most had families and other considerations to think about. After much discussion in their meeting on May 12th, the THO unanimously voted to suspend their activities.[433] They would continue to hold unofficial meetings in Oslo and plan to re-establish themselves after the war. It is then interesting to look at another organization heavily involved in tuberculosis work for patients, namely Norske Kvinners Sanitetsforening,

[432] Skogheim, *Gå foran, vis vei!,* 46-48.
[433] Skogheim, *Gå foran, vis vei!,* 49.

to draw some comparisons with how the collaborationist government treated them and their work.

A different story for Norske Kvinners Sanitetsforening

At the onset of the war in 1940, Norske Kvinners Sanitetsforening was one of the largest actors outside of the government. Its contributions spanned a wide array of charitable causes, both large and small. From running their own tuberkulosehjem and two smaller sanatoriums to providing food and clothes for the needy, the organization had a significant impact.[434] When the war came to Norway in 1940, Norske Kvinners Sanitetsforening was better prepared than most, having pre-stocked supplies and a mentality that the war could very well reach Norway.[435] This preparation is likely tied, in part, to the organization's origins, having been formed to lend medical assistance in a war between Norway and Sweden that never materialized.

When Norway's defeat was imminent in the summer of 1940, the focus on treating wounded soldiers decreased, and the organization returned to the work they had carried out before the war. Because the healthcare and social work of Norske Kvinners Sanitetsforening were of mutual interest to collaborationist, occupant, and resistance movements alike, they were able to operate largely unimpeded throughout the war years. There were attempts by the collaborationist government to politicize the popular movement, hoping some of its approval would spill over to Nasjonal Samling, which sorely lacked public support. However, such attempts were quickly rebuffed by the organization's leadership. This story is well captured in an article in Kragerø Blad during the first month of liberation in May 1945. The women's organization leveraged their immense importance in tuberculosis healthcare to avoid being taken over or politically influenced in the same way national socialists had hijacked similar organizations in Germany. The threat of civil disobedience, in the form of discontinuing their work, was enough to deter the government from such attempts. Previous efforts to coerce the doctors' association had met with failure when 80% of doctors left the association, so it was

[434] "Nordlandsposten," February 19, 1941, National Library of Norway, accessed 2023 https://www.nb.no/items/5d9848da27e3595441dd248db71c1801?page=1&searchText=norske%20kvinners%20sanitetsforening.
[435] Otterholt, "Folkeopplysning og bakteriologi," 2015: 69.

not surprising that Nasjonal Samling took the threat seriously.[436] In an article published in a local newspaper, Krageø blad a few weeks after the war, the organization proudly speaks of how their remained steadfast in their resistance to subversion by the collaborationist government.

> Norske Kvinners Sanitetsforening made huge efforts during the war. The only one of our major women's organizations that NS did not dare touch
>
> The Norwegian Women's Public Health Association is the only one of our major women's organizations that has been able to continue its work under its old leadership. The matter is quite simply that 130,000 women in 844 public health associations across the country have carried out such splendid social work for nearly 50 years, and they are so well-known, loved, and respected by the entire population that the new authorities dared not do without them. Many times, the leadership has been in jeopardy. But then the determined and fearless Mrs. Jahn, when summoned by the medical authorities and Germans, who threatened with various things, said calmly and firmly: — You hold the power, and you can take everything of ours representing a value of 16 million kroner, but what you cannot take is the voluntary corps of women who run the operation and provide the means that keep it going with an annual operating budget in the last year at 6 million kroner. We are a non-political organization. If we are allowed to continue our work in accordance with our laws without being hindered in our activities, we are willing to continue. If not, we will all stop working. It depends on whether the country can afford it.[437]

The same article goes onto say that their day-to-day work of eleven hundred members operated as normal throughout the war. “Our eleven hundred female healthcare workers have been in daily operation throughout the war at their positions, both at our institutions and in district nursing across the country. Fortunately, our many institutions have also been able to maintain their operations, including hospitals, tuberkulosehjem, orphanages, and control stations.”[438]

Given this testimony, it is fairly evident that Norske Kvinners Sanitetsforening was left to their own devices, with moderately less direct government support than they had enjoyed before the war, yet this did not significantly impact their ability to continue the tuberculosis work to which they were devoted. Considering the timing of the article, just a few weeks after

---

[436] Gogstad, *Helse og Hakekors*, 118.
[437] "Kragerø Blad," May 24, 1945, National Library of Norway, accessed 2023, https://www.nb.no/items/d61a777ae3ea9ad397e65de961803e86?page=0&searchText=norske%20kvinners%20sanitetsforening.
[438] "Kragerø Blad," May 24, 1945, National Library of Norway, accessed 2023, https://www.nb.no/items/d61a777ae3ea9ad397e65de961803e86?page=0&searchText=norske%20kvinners%20sanitetsforening.

Norway's Liberation Day, it appears the organization aimed to proudly demonstrate how they had resisted the collaborationist government's attempts to control them. At the same time, the organization was not opposed to the government's detection and mass screening project, as they were part of it, as long as it did not come at the expense of their ability to act independently. Much in the same way the organization would not let Nasjonalforeningen undermine their autonomy in 1910, the government would not either shake Norske Kvinners Sanitetsforening's commitment to independence, even during the Nazi occupation.

It would also seem that the relative independence enjoyed by the two large organizations was closely linked to that tuberculosis work. Both Norske Kvinners Sanitetsforening and Nasjonalforeningen were involved in the mas x-ray screening program.[439] The most likely answer as to why the collaborationist Nasjonal Samling government shut down the THO, but not the Kvinners Sanitetsforening was that the women's organization was 'grandfathered' into the Norwegian tuberculosis work system, and was entrenched beyond what Nasjonal Samling had the political capital to even modify. Norske Kvinners Sanitetsforening was also heavily involved in the epidemiological approach to tuberculosis work, which Brochmann favored, while the THO primarily focused on improving patients' lives and their ability to reintegrate into society, aligning more with the 'social' aspect of tuberculosis healthcare.

[439] "0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003

Chapter eight

Conclusion

This thesis has examined the transformation of the tuberculosis healthcare system in Norway during the war and occupation from 1940-1945. Like many sectors, healthcare had to adapt to the changes brought about by war. From April 9th, tuberculosis patients and healthcare workers experienced significant changes. Many were discharged, sent home, or evacuated. Norway, thrust into an unwanted and unprepared-for war, saw its tuberculosis healthcare system adapt remarkably well to these new challenges. This success is partly due to the long-term improvement in tuberculosis healthcare from 1900 to 1940, showing how tuberculosis care could benefit from four decades of experience and public engagement to rid society of this disease. Despite the unreliability of tuberculosis case statistics due to the chaotic conditions of the war, it is more probable that the number of cases either decreased or stabilized, with little evidence of any significant increase. This occurred despite a reduction in treatment facilities, from 116 tuberkulosehjem and 17[440] sanatoriums to 106 and 15, respectively.[441] However, in terms of hospital bed availability for tuberculosis patients, this reduction was minimal, representing only a 2% decrease from pre-war numbers (3146 in January 1940 to 3089 in December 1944) as other facilities expanded their offering. This resilience can be attributed to the continued efforts by care providers to isolate those posing a public health risk, a goal that was shared by all parties involved, regardless of loyalties. Ryymin notes that the war years did not bring dramatic changes to the national tuberculosis strategy, a viewpoint this thesis supports, albeit acknowledging the system faced unprecedented challenges.[442] The collaborationist regime favored an epidemiological over a social-hygienic approach. Yet, the tuberculosis healthcare system, enjoying high public approval, managed to operate independently, as before the war, despite pressure from central authorities to align with the 'state strategy.'

Evaluating the war's impact on the goal of eradicating tuberculosis and aiding sufferers yields varied conclusions. When comparing the Norwegian tuberculosis healthcare system in

[440] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*, 73, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[441] Statistisk Sentralbyrå, *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-1944*, 2, https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html.
[442] Ryymin, Smitte, språk og kultur, 193

isolation to pre-war conditions, it is evident that the system and its beneficiaries faced extraordinary challenges: destruction and theft of property, and hardships paralleling those of the general population. However, the war's unique political landscape also led to the centralization of the health department, enabling policymakers to develop progressive national medical policies post-war. This included an expanded legal framework for combating tuberculosis and the innovative mobile X-ray mass screening program. Post-war healthcare minister Karl Evang capitalized on these changes, influencing Norwegian healthcare politics until the 1970s and the development of the social democratic welfare state, hence it is a mixed picture. In contrast, when viewed in the broader European context, Norway was relatively fortunate. The food situation never deteriorated to the point of starving tuberculosis patients, nor were they systematically mistreated or replaced by wounded soldiers or civilians to the extent of neglect-induced deaths as was the case in Germany at the later stages of the war. Nazi ideology did not infiltrate the Norwegian tuberculosis healthcare system as it did in other countries. The system, somewhat shielded from the barbaric elements of Nazism, even served to protect Jews from annihilation. In Norway, the Nazis' desire to appear as civilized overseers to the Norwegians created a protective legal facade for the healthcare system. Furthermore, collaborationist doctors in Norway did not embrace the German obsession with euthanasia, even if plans may have been voiced by some it never became state policy to kill patients.

Consequently, except for Finnmark, the Norwegian tuberculosis healthcare system emerged from the Second World War well-positioned to continue its mission of nearly eradicating the disease within the next two decades. The introduction of antibiotics in the 1950s allows for a counterfactual analysis. Had these effective drugs not been discovered and made available in the 1950s, it is plausible that Norway would have outperformed most European countries in continuing the fight against tuberculosis as a public health threat, based on the condition it was in at liberation after five long years of war and occupation.

Bibliography

Archival material from the Norwegian National archives in Oslo

RA/S-2333/D/L0020 - Diverse korrespondanse.

RA/S-2333/D/L0136 - Glittre sanatorium. Korrespondanse vedr. forskjellige saker.

"0003 - 4a. Tuberkulosekontoret," 1943-1944, National Archives of Norway, RA/S-4106/D/Da/L0008/0003.

"0006 - Luster sanatorium." National Archives of Norway, RA/S-1291/D/Da/L0084/0006.

Health statistics from SSB 1940-1945

Statistisk Sentralbyrå. *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1940*. Oslo: Kommisjon hos H. Aschehoug & Co., 1943.
https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html

Statistisk Sentralbyrå. *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1941*. Oslo: Kommisjon hos H. Aschehoug & Co., 1946.

https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html

Statistisk Sentralbyrå. *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1942-44*. Oslo: Kommisjon hos H. Aschehoug & Co., 1948.

https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html

Statistisk Sentralbyrå. *SUNNHETSTILSTANDEN OG MEDISINALFORHOLDENE 1945*. Oslo: Kommisjon hos H. Aschehoug & Co., 1949.

https://www.ssb.no/a/histstat/publikasjoner/histemne-02.html

Books

Blom, Ida. *Feberens ville rose. Tre omsorgssystemer i tuberkulosearbeidet 1900-1960.* Bergen-Sandviken: Fagbokforlaget, 1998.

Bynum, Helen. *Spitting Blood. The history of Tuberculosis.* Oxford: The Oxford University Press, 2015.

Dyrhaug, Tore. *Norge Okkupert!: Tysk etterretning om Norge OG Nordmenn, 1942-1945.* Oslo: Universitetsforlaget, 1985.

Gogstad, Anders Christian. *Helse og Hakekors. Helsetjeneste og helse under okkupasjonsstyret i Norge 1940-45.* Bergen: Alma mater forlag AS, 1991.

Gogstad, Anders Christian. *Slange og Sverd. Hjemmefront og utefront leger og helsetjenester 1940-1945*. Bergen: Alma mater forlag AS, 1995.

Hitler, Adolf. Mein Kampf. Reynal and Hitchcock edition, English translation. New York: Houghton Mifflin Publishing. 1941.

Lie, Einar. *Norsk Økonomisk Politikk etter 1905.* Oslo: Universitetsforlaget, 2012.

Olsen, Kåre. *Jødene som ble innlagt i sykehus for å unngå deportasjon.* Oslo: Michael, 2022.

Risse, Guenter B. *Plague, fear and politics In San Francisco's Chinatown.* Baltimore, Maryland: John Hopkins University Press, 2012.

Ryymin, Teemu Sakari. *Smitte, språk og kultur: Tuberkulosearbeidet i Finnmark.* Oslo: Scandinavian Academic Press, 2009.

Seiersten, Anne Marie and Nørstebø, Eva Olaug. *Ikke Bare Glitter på Glittre.* Dokka: LHL, 2002.

Schiøtz, Aina. *Folkets helse – landets styrke 1850-2003.* Oslo: Universitetsforlaget, 2003.

Skogheim, Dag. *Gå foran, vis vei! Landsforeningen for hjerte og lungesyke gjennom 50 år.* Oslo: Scanbok Forlag, 1993.

Skogheim, Dag. *Sanatorieliv. Fra tuberkulosens kulturhistorie.* Oslo: Tiden Norsk Forlag, 2001.

Skogheim, Dag. *Tæring.* Oslo: Tiden Norsk Forlag, 1988.

Sagabråten, Sigrid Onsgaard. "Kampen mot tuberkulosen i det lavendemiske området Hallingdal - En analyse av initiativ og aktivitet i foreningen 'Samhold' og frimerkeforretningen Tubfrim i Nesbyen." Master's thesis, IAKH, Universitetet i Oslo, Spring 2022.

Gaard, Andreas. "Kampen mot tuberkulose i Rogaland 1900-1940." Master historiedidaktikk thesis, det humanistiske fakultet, Universitet i Stavanger, Spring 2016.

Otterholt, Tor Harald. "Folkeopplysning og bakteriologi: Opplysningsprosjektene om folkehelse til Norske Kvinners Sanitetsforening og Nasjonalforeningen mot tuberkulosen i første halvdel av 1900-tallet." Master's thesis, IAKH, Universitetet i Oslo, Spring 2015.

Archival Newspaper articles

All newspaper articles found at the National Library of Norway, accessed 2023

Frostingen

"Årets julemerke til inntekt for tuberkulosearbeidet." Frostingen. 11.8.1944. Link to article.

Folkets Røst

Narvestad, Thor. "Folkets Røst." 30.08.1945. Link to article.

Fylkestidene for Sogn og Fjordane

"Tuberkuloseheimen på Solheim blir ikke bygget nu." Fylkestidene. 05.06.1940. Link to article.

Gjengangeren

"Hele folket på skjermbilde." Gjengangeren. 24.03.1944. Link to article.

Harstad Tidene

"Overlæge S. W. Brochmann utnevnt til direktør ved Glittre Sanatorium." Harstad Tidene. 10.09.1941. Link to article.

Kragerø Blad

"Norske kvinners sanitetsforening har tatt et kjempeløft under krigen." Kragerø Blad. 23.05.1945. Link to article.

Lofotposten

"Kirgurgisk Klinikk for lungetuberkulose i Nord-Norge." Lofpotposten. 29.06.1944. Link to article.

Morgenposten

"De vanføre barna og de tuberkuløse rekonvalesenter." Morgenposten. 21.07.1943. Link to article.

Nordlandsposten

"Norske Kvinners Sanitetsforening 45 år." Nordlandposten. 19.02.1941. Link to article.

Østlandets Blad

"Landeskogen sanatorium brent ned." Østlandets Blad. 20.07.1942. Link to article.

"Hele folket på skjermbilde. Røntgenbilene på vegen hit." Østlandets Blad. 16.01.1945. Link to article.

"Alle smittekilder for tuberkulose skal finnes gjennom skjermbildefotograferingen." Østlandets Blad. 30.01.1945. Link to article.

Internet newspaper articles

Rørstad, Ole Marius “80 år siden Bodø ble ødelagt: – Var i modus for å bli bombet”. NRK. 2020 URL: https://www.nrk.no/nordland/80-ar-siden-luftwaffe-slapp-bomber-over-bodo-under-2.-verdenskrig-1.15029610

Sandmo, Espen. Stranden, Ingrid Lindgaard. Tok Trondheim uten kamp. De tyske soldatene okkuperte Trondheim uten å møte motstand 9. april i 1940. NRK. 2010. URL: https://www.nrk.no/trondelag/tok-trondheim-uten-kamp-1.7073037

Sandmo, Espen. "Ble utslettet av tyske bomber." NRK. Published April 20, 2010. URL: https://www.nrk.no/trondelag/ble-utslettet-av-tyske-bomber-1.7087806.

Sandmo, Espen. "75 år siden bomberegnet i Steinkjer." NRK. Published April 21, 2010. URL: https://www.nrk.no/trondelag/75-ar-siden-bomberegnet-i-steinkjer-1.7089556.

Christiansen, Per. Året var 1940, og invasjonen ble møtt med «koldblodig ro». Adressa. 2015. URL: https://www.adressa.no/kultur/i/237B24/aret-var-1940-og-invasjonen-ble-mott-med-koldblodig-ro

Larsen, Bjørn O. Mørch. "Denne brannen kostet sju brannmenn livet." *Bergensavisen*. Accessed 2023. URL: https://www.ba.no/bergen/denne-brannen-kostet-syv-brannmenn-livet/s/1-41-6931924.

Moe, Tom Arne. "75 år siden bombene haglet over Laksevåg." NRK. Published October 4, 2019. URL: https://www.nrk.no/vestland/75-ar-siden-bombene-haglet-over-laksevag-1.14726557.

Dæhlen, Marte. "Tuberculosis and cholera gave us sewage systems and posters against spitting. What will the coronavirus leave us with?" Science Norway. January 25, 2021. https://www.sciencenorway.no/bacteria-covid19-disease/tuberculosis-and-cholera-gave-us-sewage-systems-and-posters-against-spitting-what-will-the-coronavirus-leave-us-with/1802456.

Folde, Kjetil. "Hva som fikk Hitler til å angripe Norge." Dagsavisen. January 9, 2017. https://www.dagsavisen.no/nyheter/2017/01/09/hva-som-fikk-hitler-til-a-angripe-norge/.

Njølstad, Olav. “Hvorfor angrep Hitler Norge?” Norgeshistorie. November 25, 2015. Last modified October 21, 2020. https://www.norgeshistorie.no/andre-verdenskrig/1723-hvorfor-angrep-hitler-norge.html.

Njølstad, Olav. “Overfallet.” Norgeshistorie. November 25, 2015. Last modified October 21, 2020. https://www.norgeshistorie.no/andre-verdenskrig/1712-overfallet.html.

Njølstad, Olav. “Kupp, forhandlinger og nyordning.” Norgeshistorie. November 25, 2015. Last modified October 21, 2020. https://www.norgeshistorie.no/andre-verdenskrig/1713-kupp-forhandlinger-og-nyordning.html.

Størkson, Ole Egil, and Anders Nøkling. "Historien om gulltransporten: Flukten med Norges gull." NRK, April 5, 2019. https://www.nrk.no/vestland/xl/historien-om-gulltransporten_-flukten-med-norges-gull-1.14414917.

Hjeltnes, Guri. "Hverdagsliv under andre verdenskrig." Norgeshistorie. Last modified October 21, 2020. https://www.norgeshistorie.no/andre-verdenskrig/1703-hverdagsliv-under-andre-verdenskrig-.html.

Journals and Academic articles

Berg, Ole. "Spesialisering og Profesjonalisering: En Beretning om Den Sivile Norske Helseforvaltningens Utvikling fra 1809 til 2009, Del 1: 1809-1983 – Den Gamle Helseforvaltning." Rapport fra Helsetilsynet, 8/2009. Oslo: Statens Helsetilsyn, October 2009. https://www.helsetilsynet.no/historisk-arkiv/rapport-fra-helsetilsynet/2009/norske-helseforvaltnings-utvikling-1809-2009-del-1-1809-1983-ole-berg/

Schmidt, Mathias, Tina Winzen, and Dominik Groß. "The SS X-Ray Unit as an Instrument for ‘Total Registration’ and ‘Race Selection’." *Strahlentherapie Und Onkologie* 191, no. 5 (2015): 437–441. https://doi.org/10.1007/s00066-014-0804-0.

Schmidt, M., Winzen, T., & Groß, D. "Hans Holfelder und der SS-Röntgensturmbann." *Der Radiologe* 57, no. 12 (2017): 1071–1074. [DOI: https://doi.org/10.1007/s00117-017-0246-7].

Loddenkemper, R., N. Konietzko, and V. Seehausen. "Die Lungenheilkunde Und Ihre Institutionen Im Nationalsozialismus." *Pneumologie* 72, no. 02 (2018): 106–118. https://doi.org/10.1055/s-0044-100315

Silver, J.R. "The Decline of German Medicine, 1933-45." *Journal of the Royal College of Physicians of Edinburgh* 33, no. 1 (2003): 54-66. PMID: 12757002. Download Link - RCPE

Egestad, Helen. "De første radiografene i Norge – yrkesvalget og utdannelsen." *Hold Pusten*, February 2021. URL: https://issuu.com/holdpusten.no/docs/hold_pusten_01_2021.

Stien, Ragnar. "Norske NS-Leger Og Deres Forhold Til Eutanasi." *Tidsskrift for Den norske legeforening* 135, no. 19 (2015): 1761–63. https://doi.org/10.4045/tidsskr.15.0300.

Thießen, M. "Security, Society, and the State: Vaccination Campaigns in 19th and 20th Century Germany." *Historical Social Research* 46, no. 4 (2021): 211-315. https://doi.org/10.12759/hsr.46.2021.4.211-315.

Fjermeros, Halvor. "Landeskogen 100 år, Kåseri av Halvor Fjermeros". Aktive Fredsreiser. 2016. URL: https://www.aktive-fredsreiser.no/fredsdager/2016/landeskogen100aar_fjermeros.html.

Bruland, Bjarte. "Deportasjonen av de norske jødene". Norgeshistorie. 2015. URL: https://www.norgeshistorie.no/andre-verdenskrig/1742-deportasjonen-av-de-norske-jodene.html

Other net based sources

World Health Organization. "Tuberculosis." Fact sheet. Accessed October 27, 2023. https://www.who.int/news-room/fact-sheets/detail/tuberculosis.

"Filmavisen 1. november 1943." NRK, TV, accessed July 2023 https://tv.nrk.no/serie/filmavisen/1943/FMAA43006843/avspiller.

Tweet: Green, John. "@johngreen." Twitter post. January 26, 2023. 5:46 PM UTC. https://twitter.com/johngreen/status/1618666687368404992.

Norge. *Norges love: samling af gjældende love af praktisk betydning*. 1908. https://www.nb.no/items/URN:NBN:no-nb_digibok_2011011906049.

"Voss 1940." Memoar. Accessed 2023. URL: https://www.memoar.no/voss/voss-1940.

"Sør-Odal Sykehus." Sør-Odal Kommune. Accessed 2023. [URL: https://www.sor-odal.kommune.no/blaskilt/sor-odal-sykehus].

"Sankt Jørgens Hospital." Store norske leksikon. Accessed September 12, 2023. URL: https://snl.no/Sankt_J%C3%B8rgens_Hospital.

Centers for Disease Control and Prevention. "The Panama Canal." Last reviewed September 15, 2015. https://www.cdc.gov/malaria/about/history/panama_canal.html.

Børresen, Jacob. "Norges forsvar under andre verdenskrig." Store norske leksikon. Accessed September 10, 2023. https://snl.no/Norges_forsvar_under_andre_verdenskrig.

Sæveraas, Torgeir Ekerholt. "Filipstadeksplosjonen." Store norske leksikon. Accessed July 2023. https://snl.no/Filipstadeksplosjonen.