

# See ME , All of Me! - A Socially Sustainable Healthcare



**AALBORG  
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# Acknowledgements



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# Information Page

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# Abstract

Sustainability is a growing concept and worldwide are companies, organisations and governments working actively with innovative solutions towards a more sustainable society. However, not all sides of sustainability are receiving equal attention and social sustainability have been left behind in the research agenda. Social sustainability is often knotted with health and urban development.

I have in this thesis investigated how social sustainability is portrayed within healthcare and what value social sustainability creates. With healthcare being a highly complex system, I have used the Danish municipality of Elsinore as a case study, due to their ongoing construction of a new community health centre.

For a decade, the near healthcare has been under development and a continuous struggle of economic pressure and lack of attention has resulted in a healthcare system that is ready for a transition away from the mono-sequential treatment paradigm and towards a more coherent and attentive way of providing healthcare. Medicine has always been about data, but in the process, we lost the human. To rewrite the story, we need to allow the medicine to see the human as a whole and redefine the healthcare paradigm.

# Reading guide

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This thesis consists of a main report and an appendix. The main report is divided into 8 sections that are indicated with a section page and a distinctive colour, that will guide the reader to when sections change.

**Section one** is the introduction to the project, where you as the reader is taken through the storyline that unfolds throughout the project. You will also be presented with the research question and how I will work with it through the use of theory and methodology.

**Section two** is the state of the art, where an overview of the most significant literature, relevant to the research question is reviewed.

**Section three** takes the reader through a historical overview as well as the empirical knowledge gathered throughout the project period.

**Section four** brings the analysis of empirical data. This section contains the development arena and how staging negotiation spaces were used in an interview setting.

**Section five** presents the design solution. A theoretical concept and how it can be applied in a Danish near healthcare context.

**Section six** contains a discussion of the strengths and limitations of the concept, and a discussion on mobilising key actors.

**Section seven** is the concluding remarks and reflections of the project period.

The reference system used in this report is the American Psychosocial Association 7th edition (APA). A complete reference list will be located in section **eight** of the report, as well as a list of figures.

All rendered pictures of how the new Elsinore community health centre will look like, are provided by Hanne Vig Flyger, from Elsinore Municipality.

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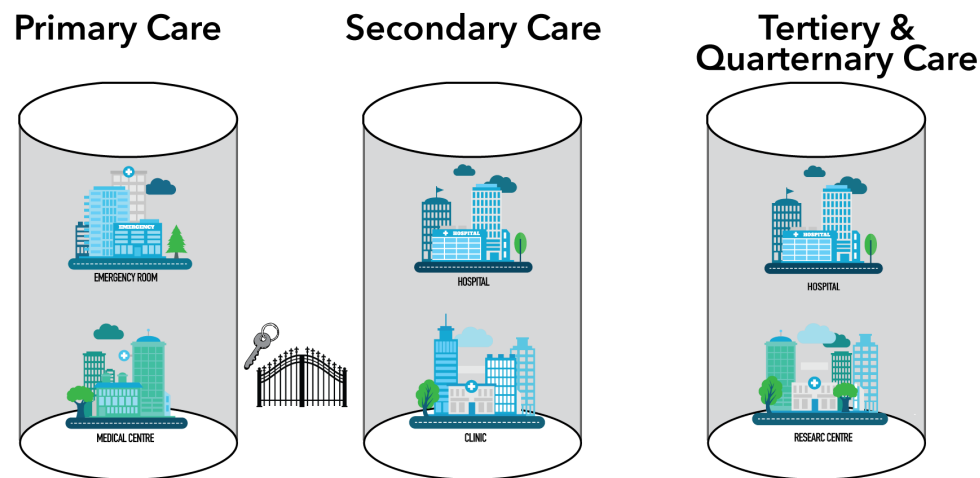
# 1.0 Introduction





# Introduction

Over the past decade, the near healthcare has been broadened out into the Danish healthcare community. Community health centres have been built and the 2007 municipal reform, pushed the system to adapt to new circumstances (Indenrigs- og Sundhedsministeriet & Sundhedsministeriet, 2005). In Denmark, we are very privileged to have a healthcare system, which is built around a no pay strategy, contrary to many other systems, where everything is measured and billed, practically before you receive treatment. Healthcare is in Denmark accessible to everyone, and payment is taken care of, through taxes. The primary treatment model is a mono-sequential, where a diagnosis is made based on prevailing symptoms and brief medical history, and treatment is then carried out from there. When the counties were closed and the regions established, some functions were redistributed to the municipality, to strengthen the primary care sector and build a more coherent healthcare system. One might view the Danish healthcare system as four different silos. In the first silo, we have primary care, where the general practitioners, acute care and municipal care reside. This health triangle has to work closely together, to provide the best services for citizens and patients (KKR Hovedstaden, 2013). The general practitioners function as gatekeepers for the secondary healthcare services, providing access and referrals to specialized treatment offers (Indenrigs og sundhedsministeriet, 2005). In the same silo, but running in parallel, we have dentistry which is one of the few healthcare services in



**Figure 1 - The four silos of the Danish healthcare system - Own illustration inspired by: (Halvorsrud et al., 2019)**

Denmark that is not a part of the overall healthcare package. If you are a member of the Danish healthcare insurance "Danmark", then you are eligible for different levels of financial support, that help cover medicine and treatment outside primary care. The general practitioners are gatekeepers for other primary care providers, such as OB-GYNs or physiotherapists, but it is, however, possible to access some of these services, without a referral from your GP, but the cost coverage is more often on the individual self. Located in the second silo, are the hospitals and services related thereto, that are not considered acute care. These could be surgeries, cancer treatments, or specialists like cardiothoracic or pulmonary diseases. Besides the primary and secondary healthcare offers, which are most common,

there are tertiary and quaternary silos that are less used. Tertiary healthcare services are related to longer hospitalization where highly specialised equipment is needed. And the quaternary services are often seen as an extension of the tertiary, where experimental treatment and research occur. Up until now, we have seen many visionary reports from the government, regions, and municipalities, filled with innovative ideas and all trying to define the near healthcare and propose initiatives for a more coherent and quality-oriented healthcare system (Danske Regioner, 2017; Det Nære Sundhedsvæsen - Region Sjælland, 2019; Region Hovedstaden, 2019). For the past 12 years, not much progress has been made, in terms of implementing visions in practice – making it seem like it is *'all talk and no play'* and leaving the system mystified. From the basis of my own previous research and one of the university's research groups, I have sought to define what near, in the near healthcare, means from a healthcare perspective, and written a definition that will influence the way we see the Danish healthcare system, throughout this thesis.

With the growing sustainability agenda, we see an increasing interest in sustainable initiatives, and it has slowly reached the healthcare sector as well. During the last decade, economic and environmental sustainability research has boomed, and many frameworks and concepts have emerged and are being utilized in society. However, less attention has been given to social sustainability and un-

derstandably so. Social sustainability concerns itself with the sensitive fields of humankind, creating a large complexity and grounds for many wicked problems. In my research, I have discovered that the literature about social sustainability, mainly describes it as a concept concerned with human well-being, which is ambiguous and difficult to describe. When narrowing the field in question to social sustainability research concerned with healthcare, the literature is primarily concerned with urban development, equity within developing countries or economic sustainable solutions. What most researchers try to do is quantify the concept, to try and make it less confusing and more concrete, so that it can be measured in numbers. But a question I ask is, do we need to quantify the ambiguity? Can human subjectivity be quantified, or can we define a concept that works with and promotes social sustainability without it?

In 2017, the Danish regions presented the first outline for a sustainable healthcare system, called "Sundhed for Alle"(Danske Regioner, 2017). The talk of sustainable healthcare was initiated, but five years later, not much has happened in terms of sustainability initiatives, and the few that are promoted are concerned with environmentally sustainable healthcare solutions. With a keen interest in the concept of the near healthcare and the lack of research on social sustainability within healthcare, I outline the following research question for this paper.

## Research question

**“How can I as a Sustainable Design Engineer, by defining social sustainability in a healthcare context, help transition the near healthcare from concept to practice?”**

By defining social sustainability in a Danish healthcare context, I will investigate what value social sustainability can bring to the healthcare system and how it can help the transition of the near healthcare visions from concept to practice. To exemplify how this definition could be applied, I will take the concept and apply it to a case study of the new Elsinore community health centre (CHC), to show what possible impact it could have as well as design suggestions for how actions can be taken to transition away from the current treatment paradigm to a more sustainable one.

# Theory and Methodology

## Theoretical foundation

The overall methodological and theoretical framework of this thesis builds upon the view that working with design within the healthcare system is considered a wicked problem. The wicked problems theory of design approach (Buchanan, 2017) is based on an understanding that wicked problems are a *“class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values and where the ramifications in the whole system are thoroughly confusing”* (Buchanan, 2017, p. 16). When working with wicked problems theory, it also means that there are no definitive conditions or limits to design problems, because the design is based on what the designer sees as a special subject matter and thereby, designs within very specific circumstances. This is highly contrary to science where laws and rules apply to what can be the subject of design. As a designer working with wicked problems theory, we tend to work on two distinct levels. First is a general level where we form an idea or hypothesis about the nature of the product, service, or system, creating a broad view of the possible nature of the design. Secondly, we dive into the particular, which is one of the foundational elements design concerns itself with (Buchanan, 2017). Working with the wicked problems theory of design, when designing for the healthcare system is taking a highly complex system and breaking it into smaller general and particular elements – where we are able

to identify and synthesise design solutions while acknowledging the complexity of the system.

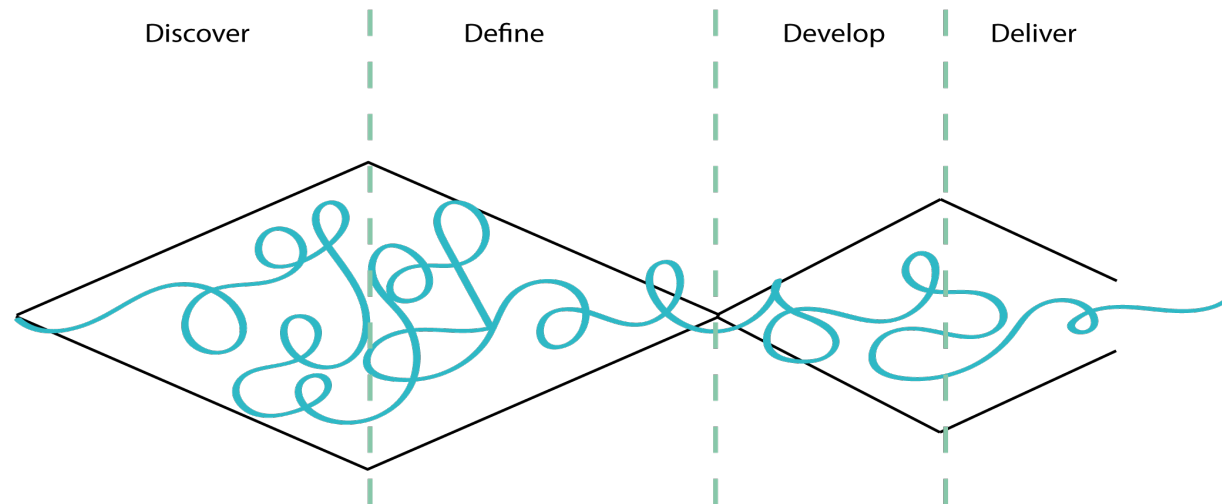
With a background in Sustainable Design Engineering, we often view the social reality, on the sociological basis of Bruno Latour’s Actor-Network Theory (ANT) (Latour, 2005). To understand the construction of the world, we narrate temporary structures of knowledge, actors, and objects, to study networks. How they interact and how their relationships influence the research in question. I use the understanding of networks in combination with the concept of development arenas, developed by Ulrik Jørgensen and Ole Sørensen (1999). Development arenas take inspiration from earlier ANT. The concept of development arenas can be described as a space that holds together a series of relations, elements, locations, and visions that define the space. And upon that arena different translations have happened to shape and stabilise relations. These elements comprise the context for process development. In this case, I am using the arena to map and better understand what the actor-worlds present are doing and what possible stages for action there could be. In this thesis, the development arena is concerned with how the near healthcare domain sees social sustainability and how different actors, artefacts and networks could be working with it.

To explain how key actors can carry the concept and create alian-

ces, I draw upon Michel Callon's four moments of translation (Callon, 1986). These processes are defined as four events, that if successful, will lead to the moment of translation. The four moments are described as *problematization*, *interessement*, *enrolment* and *mobilisation*. Problematization is when a problem is mapped, defined, and agreed upon by actors. Interessement happens when relevant actors, in solving the problem, become interested in the project. Enrolment is about creating spokespersons for the project, that become enrolled when they actively start contributing to solving the problem. And lastly, mobilisation happens when spokespersons take ownership of the project. The last process, mobilisation, is successful when the spokespersons are stabilised and speak on behalf

of the project. These four moments of translation describe how projects are carried forward and realised through alliances when actors are stabilised around a shared agenda.

Furthermore, I draw upon theoretical frameworks concerning organisational and management change. Drawing from Van De Ven & Poole (1995) we utilise the teleological process theory to explain how change occurs in structures where power relations and many decision-makers, design goals and visions of wanted end-states. In the teleological process theory, change will occur when entities rely on rationality to engage the status quo and choose paths and from there set up goals that can be monitored and followed. (van de Ven



**Figure 2 - Illustration of the design process, inspired by the Double diamond model and the design squiggle**

& Poole, 1995, p. 517). The teleological process theory goes well in hand with the wicked problems theory of design and fosters an understanding of the complexity that the healthcare system projects.

## Methodological approach

When performing research, we draw upon different design thinking approaches. First of we take after Damien Newman's (2002) design squiggle, showing an iterative and sometimes confusing design process (Newman, 2002). I combine the squiggle with the mindset from the double diamond model (Design Council, 2004) because where the double diamond provides linear phases, shifting between divergent and convergent, the squiggle counteracts and shows the iterative processes. The illustration shows how the design process has been a turbulent road and the process is left open ended, due to the project not ending with the hand-in.

## Empirical data research

Collecting empirical data can be done in many ways. During this project, I have used the research database Scopus as well as Google Scholar, for searching relevant literature related to social sustainability and healthcare. For some searches, I used the Aalborg University Library search guide, which can be seen in appendix A (Rasmussen, 2022, sec. A). Some of the search strategies used were to limit the searches to more recent studies, 2015-present and countries with

similar health systems such as ours. Countries could be Canada or the Netherlands, which both have similar structures. When relevant literature was found, I looked through if the literature had shared references or if the author had published other articles on the same subject, which led to more relevant literature for the state of the art. To sort the data and knowledge found in the literature, which can be an overwhelming and complex process, I used the inductive process of affinity diagramming (Holtzblatt & Beyer, 2017). The affinity diagram offers a process where knowledge moves around, with no

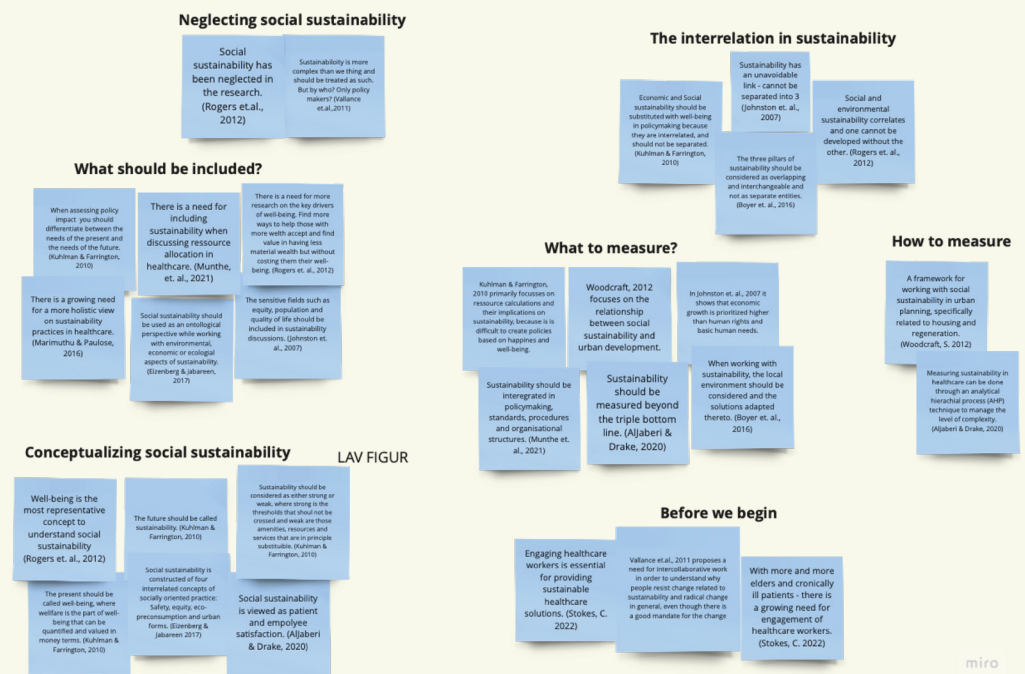


Figure 3 - Affinity diagram created in MIRO

pre-definitions and structures appearing out of the details presented from the data. The affinity diagram has been a way of seeing patterns and contradictions in the literature while conducting the state of the art. A larger view of the affinity diagram can be found in appendix B (Rasmussen, 2022, sec. B).

### **Classical ethnography**

Drawing from classical ethnographic research, I use methods, models, and frameworks, to study cultures, behaviours, and social relations. Ethnographic research helps to do research systematically and enables me to gather knowledge and interpret relations between actors and artefacts in for example the existing CHC, in Elsinore, compared to what we expect in the new house. From the methodology of classical ethnography, we draw upon ethnographic grand tours combined with natural conversational ethnographic interviews (Whitehead, 2005, pp. 15-16). Letting the setting of the grand tour lead the conversation, where I have a pre-existing understanding of the research paradigm and thereby, let the conversation naturally take place within that frame, without structuring the informant's knowledge output.

By performing semi-structured interviews, I allow the conversation to follow an interview guide or pre-made list of questions, which are open-ended and thereby, allow the interviewee to answer based on their personal view, knowledge, and interpretation of the question.

The interviews were used to investigate the structures and knowledge of strategies and plans for the new CHC in Elsinore.

### **Staging negotiation spaces**

In this project, I work with the Staging Negotiation Spaces framework, designed by Signe Pedersen (Pedersen, 2020). Staging, in the theatrical world, refers to the translation and interpretation of a script into action. The action occurs in a scenic space where the stage director oversees and frames the performance into what is intended for the audience to see and understand. When framing the performance, the stage director makes decisions about, the actors needed, objects such as props, clothing, or lights. When connecting staging to the work of the design engineers, we see ourselves as the stage directors creating spaces where performances are set up and take place. In collaborative design, we view these spaces as situations where negotiations of problems or concerns take place.

Setting the stage for a meeting or an event, like a workshop, is considered a temporally limited space. Even though the design project itself is a temporary space, it persists over several events. I utilize the SNS framework to stage a meeting with the project coordinator, of health services, Hanne Vig Flyger from Elsinore municipality. The purpose of the meeting was to initiate negotiations on what social sustainability means within healthcare and what role sustainability



plays in the development of the new CHC. Furthermore, by using the SNS framework I could frame a space, where knowledge could be translated between us.

The above mentioned theoretical and methodological models and frameworks have assisted me throughout this thesis, in understanding the field, learning historical perspectives, and sharing and designing new knowledge on social sustainable healthcare. The extensive state of the art has taught me much about the complexity of healthcare and how social sustainability is not an easy definition to make. But with sustainability becoming a strong agenda for many companies and organisations, it becomes important to know what all sides mean and how we can work with more than just numbers and measurements.



# 2.0 State of The Art



## State of the art

The state of the art has assisted my work in identifying gaps in the literature around sustainability in healthcare and accumulating knowledge on the meanings of sustainability in healthcare, the meanings of social sustainability and how it is integrated and used in practice and lastly, how well-being is used as a concept to represent social sustainability.

### Lack of social sustainability in healthcare

When the primary task of the healthcare system is to maintain and protect human health, through a variety of services and treatment offers, it constitutes a highly complex system. Within the last decade, sustainability and sustainable development has been in the limelight of the public agenda and has attracted the attention of the healthcare system as well. Sustainability is slowly becoming integrated on different levels from politics to urban development and corporate strategies. The concept is often portrayed as the three pillars, three overlapping circles or triangles or similar illustrative concepts, where sustainability occurs in the intersection between all three sub-elements, environmental-, social-, and economic sustainability (see figure xx). But when looking through the literature it becomes clear that not all three sides are receiving equal attention, and it is evident, that there is lesser attention towards research concerning social sustainability (Rogers et al., 2012; Vallance et al., 2011; Woodcraft, 2012). While there has been much research on environmental

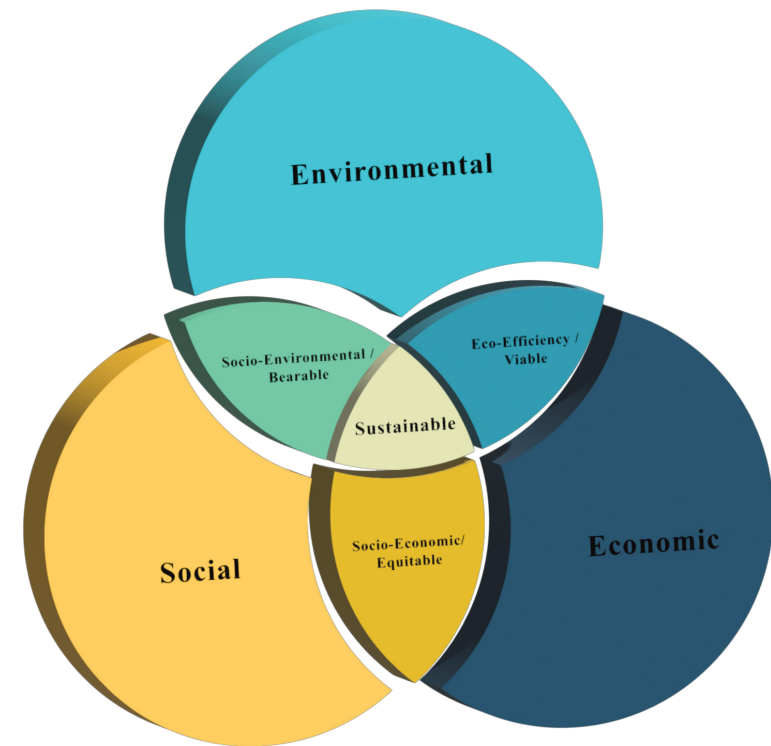


Figure 4 - The sustainability circles - own illustration

aspects of healthcare, such as medical waste and single-use plastics, fewer researchers have concerned themselves with the topic of social sustainability and more specifically with its role in healthcare. As Marimuthu & Paulose (2016) recommends in their article *"Emergence of Sustainability Based Approaches in Healthcare"*, there is a need for an expansion of the sustainability scope within healthcare, to go beyond environmental sustainability and include the sensitive fields of human beings (Marimuthu & Paulose, 2016). Social sustainability is in the literature, often characterised as elusive or ambi-

guous, because it concerns itself with the sensitive fields of human beings and is thereby not as easily quantifiable. But as Johnston et al., (2007) points out, we should include the sensitive fields, such as equity, population, and quality of life even more in the sustainability discussions, or even use it as an ontological point of view when working with environmental, ecological, or economic sustainability as argued by Eizenberg & Jabareen (2017) (Eizenberg & Jabareen, 2017; Johnston et al., 2007). When a concept is elusive, we try to make sense of it by for example trying to quantify it. Most of the literature concerns itself with frameworks, methods, and models on how to quantify the ambiguous concept of sustainability and how we can measure development and progress (AlJaberi et al., 2020; Bottero et al., 2015; Capolongo et al., 2016; Eizenberg & Jabareen, 2017; Olakitan Atanda, 2019). Several researchers emphasise that the three elements of sustainability are interrelated and should not be considered as individual pillars or sides of a coin (Boyer et al., 2016; Johnston et al., 2007; Rogers et al., 2012). But what the literature does not demonstrate, is how to perform or use social sustainability in practice. Most recent literature on sustainability, within healthcare, is primarily discussing topics such as resource allocation, patient and employee satisfaction, or the constructional aspects of environments of care (AlJaberi et al., 2020; Capolongo et al., 2016; Munthe et al., 2021). However, even though many of them point out, that there is the need for a more holistic perspective when working

with sustainability in healthcare, there is a continuous gap on how to do it in practice.

### **Well-being is central to social sustainability**

Social sustainability is conceptualised in multiple ways, but in the most significant literature, the common representation is the concept of well-being (Diener et al., 2018; Kuhlman & Farrington, 2010; Rogers et al., 2012). As argued by Rogers, et. al., (2012) well-being is the most representable concept to understand social sustainability. But as they also point out, there is a lack of research pending on what the key drivers of well-being are and how we can utilise those drivers to create transitions in society for social sustainability (Rogers et al., 2012).

In a research article by Pinto et. al., (2017), a total of 18 studies on comfort, well-being and quality of life were reviewed, but no studies comparing the concepts across we found. What they argue is that the concept of comfort is generally used within nursing practices and is related to the feeling of being cared for and satisfied in terms of one's needs. Whereas well-being is used in a more psychological, spiritually, and holistic perspective, often related to psychology sourced thinking. Quality-of-life is argued to be the most adequate definition to cover health as it from the review is a broader term, including "*health in all human life dimensions*"(Pinto et al., 2017, p.

11). Some researchers are acknowledging the need to go beyond measuring well-being and health with numbers and levels of happiness. Rogers, et. al., (2012) suggest moving beyond measuring well-being through gross domestic products (GDP), because of the subjective component of well-being and we, therefore, need to measure various objects and subjective components to monitor the progress. In their research, they argue that for transitioning towards more sustainable societies, we need human societies that function well and to make them function well we need to consider human well-being, as being a combination of physical well-being and emotional and social well-being. A gap we see in the literature is a tendency to separate the physical state, meaning the presence or absence of illness, from the other interrelated components of well-being. The most used components are 'emotional, psychological, social and spiritual'. As explained by Lindert et. al., (2015) subjective well-being goes beyond traditional indicators of health and lacking well-being can contribute to disease and mental disorders (Lindert et al., 2015). Because of the ambiguity and the complexity of the concept clarification is needed.

### **Clarification of concepts - what is does social sustainability mean within healthcare**

When looking beyond what we know of patient views, from the mono-sequential treatment model to patient-centred and pa-

tient-focused care or even population health management, to find a treatment model that speaks to what we now know of social sustainability and well-being research. Where the population-based approach is not far-fetched, it is focused on research and gaining data on groups of people, to eventually be able to tailor individual treatment plans. This is where 'whole person health' (WPH) comes into play. Whole person health is a rather new research subject, and as The National Center for Complementary and Integrative Health (NCCIH), which is a part of the United States National Institute of Health, explains: *"Whole person health involves looking at the whole person—not just separate organs or body systems—and considering multiple factors that promote either health or disease."* (National Center for Complementary and Integrative Health (NCCIH), 2021). Shifting focus from not only treating symptoms of disease but seeing the patient as a whole, within the environment and helping and empowering humans to improve their health. The 'whole person health' approach focuses on restoring, preventing, and promoting health all in one. The treatment model leans upon the biopsychosocial model of the person, frequently used within psychology. With its foundation in Gerges Engel's model from 1977 and his further research on the model throughout the 80'ies, the biopsychosocial model addresses the importance of attending simultaneously to the biological, social, and psychological dimensions of illness (Borell-Carrió et al., 2004). The model comes as a more holistic alternative to the mono-se-

quential treatment paradigm, where the biomedical model has dominated for decades. A study performed in Australia in 2020, on the knowledge and practice of whole-person care (WPC) in general practice, shows similar conclusions on how practitioners understand the importance of WHC/WPH and see elements of it already being performed in their daily work (Thomas et al., 2020). WHC cannot be performed in competitive environments but needs supporting and integrative structures, that are willing to acknowledge individual practitioners' limitations and team up with other relevant healthcare providers to ensure the right treatment (Thomas et al., 2020). Most of the literature available on 'whole person health', is based on research conducted in the US. but we can draw parallels between the meanings and values given by 'whole person health', and what we see happening with the near healthcare. The paradigm is shifting - change is coming, and it leaves a gap for design to help solve the challenges we will phase.

What we draw from knowing a treatment model that does not only consider a person's symptoms of illness but also sees and acknowledges circumstances, environment, and social relations, is that we can now work on designing a transition towards a matching healthcare system. This further calls for more investigative research into how 'whole person health' can function in practice within a Danish healthcare context.



# 3.0 Empirical Research



## Historical setting



When Kommunernes Landsforening, (KL, the national municipal union) and the municipalities, proposed the strategy for the near healthcare, back in 2012, the vision was to develop a near healthcare system that through the utilization of cross-sectoral collaboration, could provide the Danes with healthcare focused on a prevention philosophy. The strategy was based on helping Danes to live a healthier, active, and productive life, without illness and limited functionality. Furthermore, the strategy emphasized the necessity of incorporating areas such as social psychiatry, schools and day-care institutions, employment initiatives and eldercare (Kommunernes Landsforening, 2012). Come 2013, the government re-evaluated the municipal reform of 2007, from which the counties were resolved, and the 5 regions were established (Regeringen, 2013). In this re-evaluation, the government pushes forward a new healthcare initiative with a new direction for Danish healthcare. This new direction was focused on making sure that the citizens stay citizens for as long as possible and become patients as little as possible. A foundation for a system that meets the citizens where they are, with their individual needs and resources (Regeringen, 2013). Lastly, putting additional effort into strengthening the relationship between the regions and municipalities to increase the cross-sectoral collaborative work.

The cross-regional task force, by Danish Regions, put forth a report, with a new strategy for value-based steering of the hospital sector.

This comes after an increase in productivity and efficiency in the hospitals, but with these increasing each year it also means less time for each patient, which gives less time and room to meet the patients where they are with their individual needs. Creating the most value for the patient is the new value proposition while upholding efficiency, productivity, and economic balance (Danske Regioner, 2015). A seamless healthcare system with a focus on prevention and with the patient in the centre. But does it work like that in practice? The healthcare system has KPIs on efficiency and economic growth, but none on patient satisfaction or patient value, who are the recipients and hold valuable knowledge. Where does that leave the patients? (Foged et al., 2016).

The strategy, 'the near healthcare' from 2012, was evaluated by the government in January 2019. They outlined and acknowledged how far the healthcare system has come, but that we still have challenges we need to address and solve. The report "Patienten først - nærhed, sammenhæng, kvalitet og patientrettigheder" (Sundheds- og Ældreministeriet, 2019) outlines 4 main areas, that the near healthcare needs to work more with, to provide the best healthcare possible. Nearness, coherence, quality, and patient rights. The next step toward a better healthcare system is to establish 21 new healthcare communities, to strengthen the collaboration between the municipalities, the hospitals, and the private practitioners. Additi-

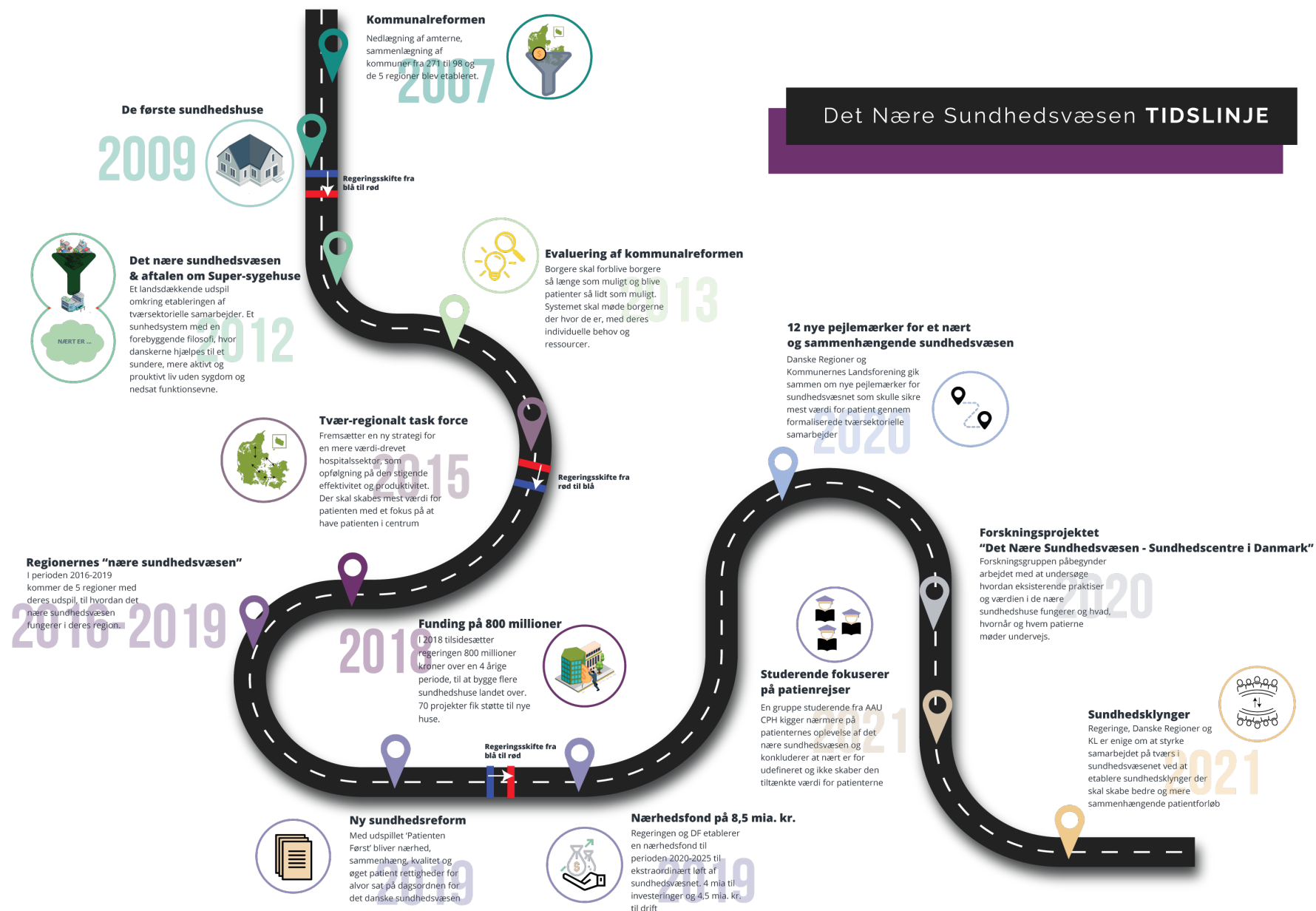


Figure 5 - Roadmap of the evolution of the near healthcare - own illustration



onally, a resolution was proposed, for a clearer direction, for healthcare across the nation. To ensure that patient rights are enforced everywhere and that all citizens have access to high-quality healthcare offers, no matter their zip code (Sundheds- og Ældreministeriet, 2019). The most controversial part of this new strategy is the proposal to dissolve the regions, simplify the administration, and move the resources toward the patients.

In March 2019, the government agreed to establish a new nearness fund of 8,5 billion Danish kroner. This fund was to be used to develop and expand the near healthcare, in the upcoming period 2020-2025. Distributing 4 billion DKK to investments and 4,5 billion DKK to operations (Regeringen, 2019). The 4 billion investment was to go into building new community health centres, in which there was an opportunity to prioritize psychiatry as well as regular CHC's. *"A more inclusive healthcare system"* (Regeringen, 2019, p. 11). The new healthcare communities were to establish a patient council and a family/supporter's council, this was to ensure that they were more included in the development and to ensure that they were heard. This money from the fund was to continue the work of creating a nearer, more coherent, and high-quality healthcare system, as presented in the article from January.

Six months into the pandemic, in September 20', KL and Danish Re-

gions (DR), outlined 12 new pinpoints for the future of Danish healthcare (Danske Regioner & Kommunernes Landsforening, 2020). At a time when the healthcare system, was under large pressure and the world was filled with COVID-19, they looked beyond the pandemic towards what the system needed to become even better. The future system should be based on what gives the most value to the patients. Collaboration between municipalities and regions should be formalised, both in terms of politics and cross-collaborations. These pinpoints, distributed within 'economics and data sharing', 'stronger collaborative enforcements', and 'quality planning to strengthen the efforts within elder care, chronic pain patients and citizens with psychiatric illnesses, are in line with the plan from Patienten Først (2019), but why has it taken another year to find specific pinpoints to work towards and guide the evolvement of the near healthcare.

### **Can we create a sustainable healthcare system?**

In 2017, the Danish regions presented a political vision for a sustainable healthcare system called "Sundhed for Alle" - healthcare for all. For example, they acknowledge the need for a paradigm shift, away from efficiency and result-oriented practice to a more value for the patient, based healthcare paradigm (Danske Regioner, 2017, p. 5,17). Furthermore, they discuss how a "population health management" approach to treatment is the upcoming way internationally with positive results. The purpose of working population-based is

to move the focus towards preventing illness as well as the cause – while tailoring treatment to the individual citizen, considering their circumstances (Danske Regioner, 2017, p. 10). There is a continuous focus to provide as much health on the dollar, as possible, and this means a need for more cross-sectoral collaboration and more research on populational health and patient journeys, to be able to deliver on their vision for a more sustainable Danish healthcare system. In the report, they describe 5 initiatives, one in each region, that are testing different models focusing on and striving for the value and affect the patient experiences of the treatment. These models are trials across different disease groups, the only issue is that the trials are only conducted in collaboration with hospital departments, specialised in that specific disease group, but the trials are supposed to function as incitements to foster cross-sectoral collaboration with the municipalities and the general practitioners (Danske Regioner, 2017).

### **Researching the field of Danish community health centres**

In the fall of 2020, a group of researchers from Aalborg University Copenhagen, Roskilde University and Copenhagen Business School began the project “Det Nære Sundhedsvæsen - Sundhedscentrene I Danmark”, where they investigated the value and existing practices of the near community health centres (CHC's) (Pedersen et al., 2020). They conducted interviews with administrators, healthcare

workers, and general practitioners across the region, municipal and private sectors. The interviews were to establish knowledge of how the CHC's were functioning, how they were organised and what, how and whom patients meet on their journey through the houses. In the spring of 2021, my previous project group at Aalborg University Copenhagen chose the research group and their project as a case for their semester. The students quickly learned that the researcher had taken the organisational and more administrative path and therefore, chose to investigate patient journeys and their experiences with the Danish CHC's.

Over the project course of 4 months, the student group sent out a questionnaire, that functioned as a gateway for gathering information about patient experiences, with the CHC's (Graunbøl et al., 2021). From the questionnaire, they further did semi-structured interviews with 5 patients, where they did patient journey mapping and discussed the word *near* and what it means to them as patients. The project had a continuous focus on how '*near*' has been ill-defined and how it needed to have a more specific meaning, to be utilized more and understood by both patients and physicians.

The ethnographic research of *near* resulted in a compilation into three primary parameters that all contribute to the definition of *near*, from a patient perspective (see appendix C) (Rasmussen, 2022, sec.

C). The first parameter is *distance*. One of the primary goals over the years has been to close the physical as well as the emotional distance to the healthcare system, and this is a continuous element, that weighs a lot in the eyes of the patients. Patients want empathic relations with their physicians, and these are difficult to create and maintain, in a system that has a mono-sequential treatment model, where efficiency and time are what measure success. Geographical distance matters, but the importance of emotional distance cannot and should not be neglected. The research led to a second parameter *time & accessibility*, which primarily consists of the gateways into the healthcare system and availability. General practitioners function as gatekeepers for most of the services that are offered in the Danish healthcare system. But with a lack of cross-sectorial collaboration and collaborative pathways, the function of the gatekeeper becomes strained and does not always function intentionally. Patients feel overlooked, GPs are limited by timeframes, and this is a consequence of a system where the decision-makers are partially driven by economic forces, that pressure the system. Understanding near with this parameter in mind means designing solutions that can deliver coherently and near healthcare, with physicians who are given tools and time to attend to heterogeneous patients, who have different backgrounds and circumstances. The third parameter contributes to the promise of a healthcare system that encourages people to get involved in their health treatment. *"The proximity and*

*accessibility to healthcare services are complemented by a treatment tailored to the patients' needs, facilitating their involvement and adherence to treatments. The development and strengthening of a cohesive process across sectors aim to provide a smooth path for patients who need to travel through different sectors throughout their treatment."*(Graunbøl et al., 2021, p. 56) Thereby, giving a coherent experience, no matter their zip code or social status.

The research group used a design game, to investigate which meanings related to nearness, that the healthcare workers valued the most. This game was shaped as a prioritization game, where they were given 7 different words, and a blank option, where they could add a meaning themselves. This resulted in a total of 12 different meanings associated with nearness. The design game was performed in 12 different locations, with municipal, regional, and private actors. When looking at how the healthcare professionals, administrators and organisational channels, priorities the meanings, we see that they weigh coherence as the most important element for providing nearness in healthcare (see appendix C) (Rasmussen, 2022, sec. C). Secondly, they prioritize trust and quality which correlates with what the patients feel they need and what the system promises. But not to forget elements such as safety and service-mindedness, which are also valued highly. Local treatment and accessibility are averagely prioritised, which is somewhat of a surprise since these

are some of the central elements that near healthcare is promoted on.

When comparing the results from the student group and what the research group learned from their interviews, we see that they, as expected, have different priorities, but at the same time, they share elements such as quality, trust, accessibility, and service (Graunbøl et al., 2021). When designing the understanding of near, we take into consideration the elements that were originally promised, the needs of the patients and the priorities of the healthcare workers and administrators who run the system. The concept of near can thereby be summed up to:

***Near is the balance between the emotional distance, making the patient feel heard and seen, and the geographical distance, a concept where coherence and collaboration are the foundation for offering treatment closer to home.***

After defining what near means from my perspective, based on the historical research and previous projects, I can now move forward with a clearer understanding of the concept of near healthcare, and include it in my further research.

## **How patient views affect patient pathways**

As mentioned in the introduction, the mono-sequential treatment model is dominating the healthcare system, leaving the patient view to a set of symptoms and medical history being the focus of care. With the introduction of near healthcare, we also see an increased interest and integration of the concept of patient-centred care or patient-focused care. Over the past decade, the concept has been widely acknowledged throughout literature and has been promoted as the undefined concept of near, which shares similarities and overlapping ideas with patients centred and patient-focused care. The municipal reform acted as a catalyst for changing old ways and creating new paths for business as usual. But as Christiansen & Vrangbæk (2018) argues, has the near healthcare lived up to its full potential, when cross-sectorial collaborations between primary and secondary care are still very limited? (Christiansen & Vrangbæk, 2018). With an increased focus on how integrated care or patient-centred care should be utilised and enrolled in daily practices, the literature states that there is a continuous lack of incentives across the network and hierarchy.

The study of patient journeys often occurs with process innovation, improving efficiency, and knowledge sharing amongst physicians. It is remarked that good patient journeys or patient pathways are critical for a good outcome of healthcare services. But what we also see

is that the focus is on improving processes, spaces and products for the physicians providing the service, and not from and for a patient perspective. Questioning the outcomes of the trials mentioned in the 2017 report by the Regions, how are they working in practice. I have not been able to find any report or statements on the outcomes of these trials or if they are still ongoing five years later. As a patient, transitioning through the different silos of the healthcare system can be difficult if it is not planned and guided throughout. Leaving a gap for further research into patient journey mapping and its value in innovating Danish CHC's.

### **Where is sustainability?**

We have a healthcare system, willing to innovate and evolve but where is the sustainability?

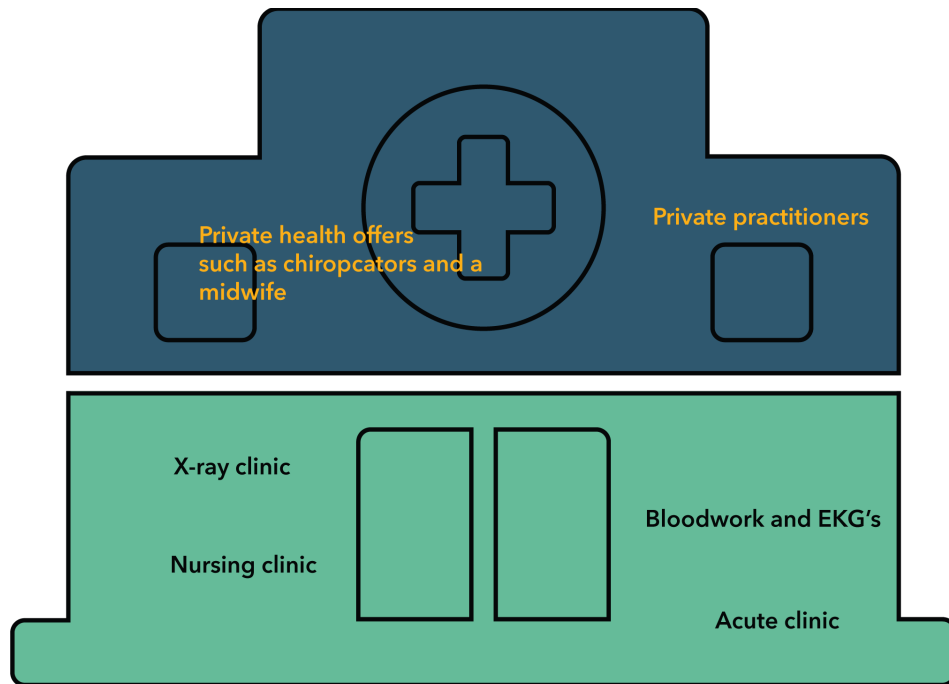
The Danish Regions proclaim to have a significant role in securing green transitions in the Danish society, but their solutions and initiatives are secluded to environmental sustainability and are focusing on a contribution to the Danish goal of reducing CO2 emissions by 70% by 2030, in accordance with the Paris agreement. Initiatives such as less plastic, energy-friendly, and sustainable construction, environmentally friendly procurement, and less food waste in hospital kitchens (Danske Regioner, n.d.). None of these, are in coherence with the concept of near healthcare and the lack of socially sustainable initiatives becomes evident once again. How can we learn

from the Region trials and design socio-technical solutions in CHC's that combined with the patient's experiences can foster better CHC solutions that include sustainability, without compromising care?

### **Elsinore (Helsingør) - as case study**

As explained earlier, CHC's have been built nationwide over the past decade. An example of a community health centre is 'Elsinore', in northern Zealand. The house consists of a variety of **regional** treatment offers and services and on the floor above is a **private** healthcare centre, with different primary care providers, such as GPs, chiropractors, and physiotherapists. The current collaborative pattern is only present through individual agreements between the upstairs and some of the downstairs services. The location itself is privately owned and the region and private service providers are renting the space.

The municipality of Elsinore is amidst building a new 19.100 square meter, 4 stories, CHC, where the **municipality**, **region** and **private** physicians will share spaces. The house is expected to be finalized and ready for opening, in January 2023. Negotiations have been ongoing between the municipality and the region, as to how many square meters each party should have in the new building. The finalized project plan shows that Region H will rent 1100 m2, approximately 3000 m2 is allocated out to private actors and 2000 m2



**Current healthcare house**

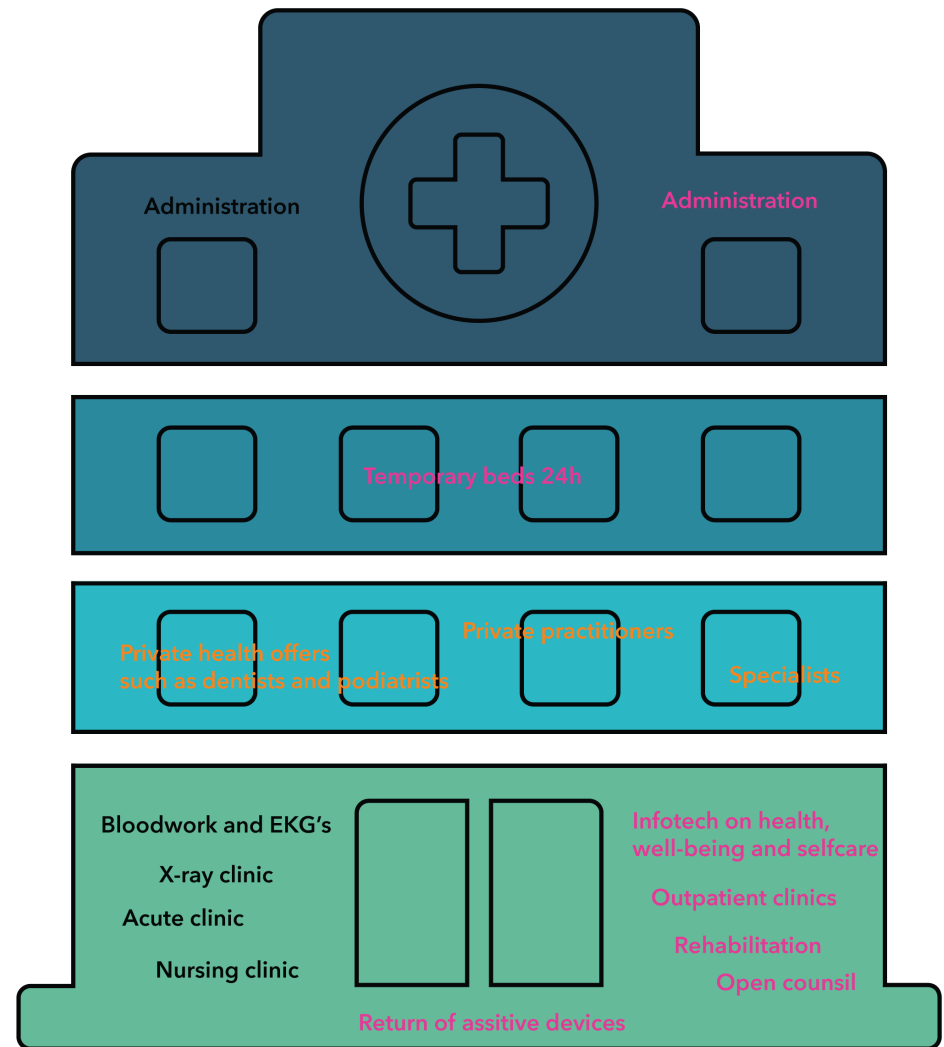
**Figure 6 - Own illustration of the current CHC and centre in Elsinore**

are already leased and the remaining 15.000 m2 will be used for services provided by the municipality.

### Guided tour of the new construction site

To gain more insights about the new CHC, I contacted the project leader Jan Krog Inslev from Elsinore municipality, to schedule an interview, and he invited me for a tour of the site, combined with the interview. Along for the tour I brought PhD student Nanna Finne Skovrup, who is researching a similar topic and the tour and interview was therefore highly relevant for her research as well. The complete

### NEW! Elsinore Community Health Centre



**Figure 7 - The new community health centre - own illustration**

transcript from the day can be found in appendix D (Rasmussen, 2022, sec. D). What we learned during the tour, was a structured view on who, what and where the different services and treatment offers were localized within the house. For example, he explained how a large portion of the house was devoted to a new rehabilitation centre, focusing on bringing together services that are currently scattered around the inner city of Elsinore in older buildings. They want to be able to provide shared training facilities that can accommodate a wide variety of rehabilitation needs. From amputations to diabetes and alcohol – to post-surgical rehabilitation. The first floor of the building is primarily leased to private actors such as dentists, general practitioners, and smaller individual physicians, such as podiatrists or psychologists, also aiming at bringing in a wide range of services to be offered in house, without the patient having to go all around town. The second floor is designed to host 66 temporary citizen beds, where 6 of them are for bariatric<sup>1</sup> purposes. Lastly, the third floor is for administrative purposes, with offices for visitation calls, and administrative work for both regional and municipal workers. Besides the interior design of the CHC, the surrounding area has also been brought into consideration. Jan explained how a bus route had to get a stop next to the house because there are more than 800 meters to a public station. Furthermore, a training garden outside the rehabilitation section is planned, to create environments similar to what the citizens will experience when they go home. This

could be different types of foundations, such as grass, asphalt or gravel and it could be small hills and stairs. Walking routes in the nature area besides the CHC will be established as well as a round boardwalk atop the lake. A more detailed floorplan of the services so far can be found in appendix E (Rasmussen, 2022, sec. E).

After the guided tour, we sat down and talked further about the development and plans for the new house. We asked questions such as: *"Has sustainability played a role in the construction and planning of the CHC?"* where to, he explained that the municipality has a sustainability strategy, but the strategy did not contain any specific claims or instructions that they could include in the building process, such as demands for sustainable buildings like DGNB certificates or similar. Even though the strategy hasn't provided instructions for the inclusion of sustainability, a choice has been made to focus on energy. The new CHC will be focusing on energy and more specifically working with the Energy 2022 plan. There will be solar panels installed atop the third-floor section (1/4 of the rooftop) to, as Jan said – maintain the goals. Jan further explained how he found it incomprehensible that they couldn't utilise the entire rooftop for solar panels, but they are not allowed to sell the power to the grid, because the municipality is now allowed to earn money and is therefore restricted to a quarter of the rooftop. Not even materialistic choices were made based on sustainable calculations, Jan explai-

1: Bariatric care concerns patients up to 350 kg – in need of highly specialized equipment.

ned that the city council is beginning to think more and more about sustainable strategies but wasn't until after the construction began that all choices were made. To his knowledge, there are no intentions of post-construction sustainability certifications, but he cannot rule it out since they recently hired two new sustainability consultants in the municipality.

The interview and tour with Jan, gave a good insight into the choices that were made for the construction and how the tenants, who were a part of the project early have had a clear say in how they would like their clinics to be, even though none of them made demands on sustainability. This leaves us with a question: if the construction of the physical house hasn't considered sustainability in its development - how can we then make sure it is being considered when operating?



# 4.0 Analysis of discoveries



# Development Arena

When investigating a field, it can easily become overwhelming to navigate and keep oversight of information, relations and the different agendas that take place in a field. Especially when working with wicked problems. To overcome this, I use development arena mapping, designed by Ulrik Jørgensen and Ole Sørensen (1999), to help keep oversight and look at the configurations taking place. I will in this following section use the concept of development arena mapping, to try and describe the current situation in the near healthcare and how I can use the development arena to discuss how translations and enrolments have taken place to stabilise arenas and those that need to take place, to move actors and create new actor worlds supporting the agenda of the near healthcare and move away from business as usual. The notion of the development arena, as described by Jørgensen & Sørensen (1999), should function as a framework for identifying relevant spaces for development and what types of problems and relations, needs to be managed for the development process to become a success.

First, I specify and limit the arena mapping to the domain of the near healthcare, since this is the focus of the research, and the case house is considered a locality of this domain.

I identify 3 larger arenas, that are relevant in understanding the field. The arena of prevention, the arena of diagnosis and the arena of treatment. Each arena is characterised by elements such as actors

or artefacts, the localities for action that define the changes of the space and the translations that help shape and stabilise or destabilise the relations and artefacts within. Arenas can have overlaps and intersections where they share elements or localities and actor- or object-worlds that can move across different arenas. The identified arenas consist of new actor worlds as well as already existing actor worlds resulting from earlier activities.

## **The prevention arena - Getting the much-needed help and education on healthy living**

The first arena I focus on is the arena of prevention. This is a highly important arena, as we know from the historical overview, that prevention philosophy is in high demand and the need for preventive medicine is preeminent and will continue to grow. The actors that populate this arena are concerned with the overall health and well-being of citizens, providing services and prevention offers to increase, prevent, and maintain health and healthy lifestyles. Actors such as patient unions or local community organizations come together in the '*information on health*' actor world, where they translate the latest knowledge on health, and how to improve healthy living. They do so by, for example, circulating objects such as pamphlets, infographics, or digital content, or they can host workshops or host talks, narrated towards a specific target group or disease type. These could also be used for displaying the newest trends and techno-

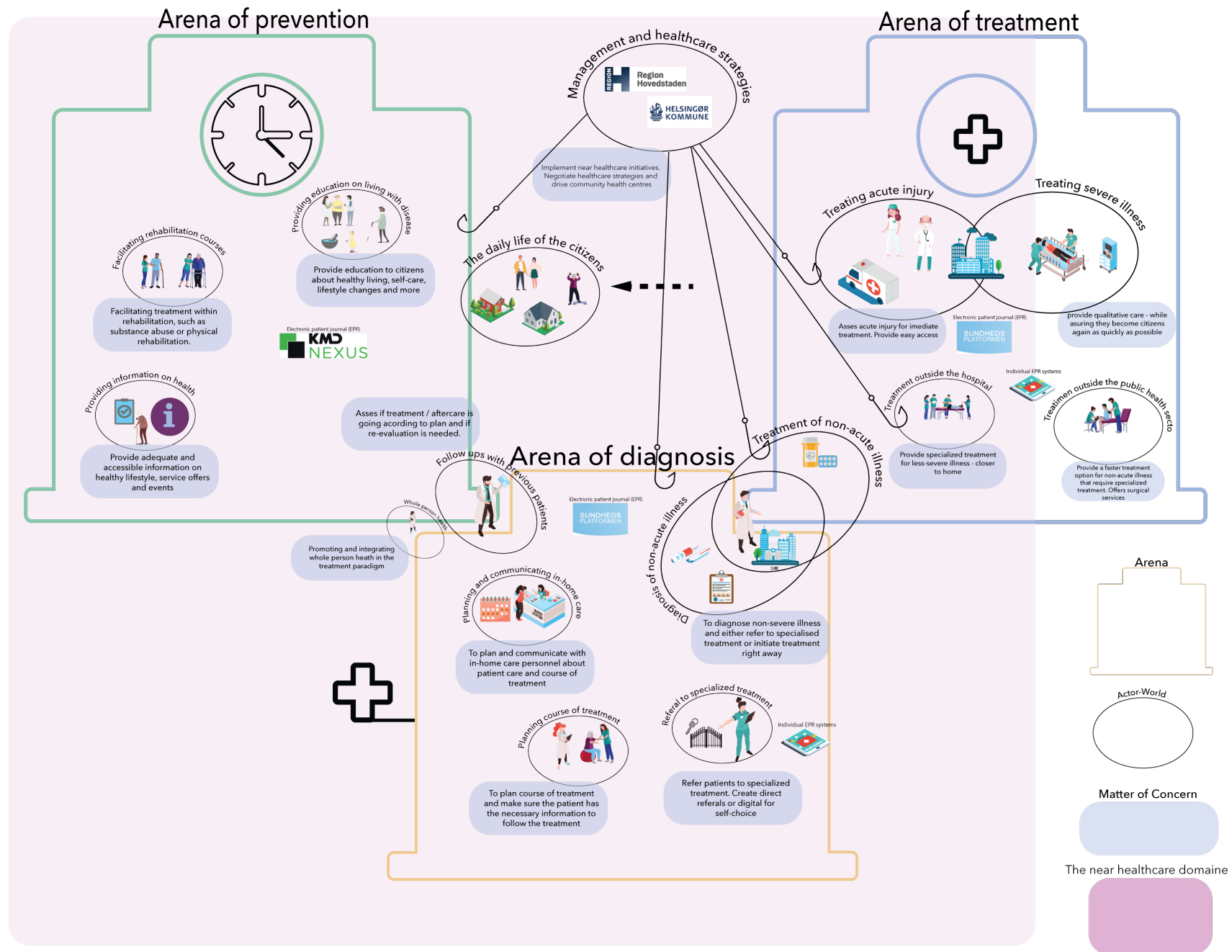


Figure 8 - Development Arena of new CHC - Own illustration

logy, within health-tech and medical devices. Moreover, we have an adjacent actor world that concerns itself with '*providing education on living with disease*'. When diagnosed with a chronic disease, some measures can be taken, to help the citizen cope in different ways. For example, if you recently have been diagnosed with type-2 diabetes, you need a lifestyle change. This actor world is populated by actors who will provide education on living with diabetes and could host events such as cooking classes or training sessions. This actor world as well as the information can be populated by non-physicians, with no educational background in therapy, medicine or similar. Besides the prevention philosophy and teaching on such, the arena is populated by an actor world concerned with facilitating rehabilitation courses. A patient might have had a stroke, partially lost their cognitive function, and therefore needed rehabilitation to regain their function. Patients and citizens go through a visitation process, where they are either referred to rehabilitation by the region or through the municipality, which deems them fit to receive a course of treatment. This actor world has a very large network of physicians and personnel, all connected to the municipality that oversees the services. But even though the actor world is populated by many actors they don't necessarily work together to achieve goals or provide services, reflecting their entities. Crossing the boundary between two arenas is the actor world of '*follow-ups*'. The matter of concern here is to assess how treatment, in-home care

or rehabilitation is going, and from there re-evaluate if changes are needed or if the plan is going accordingly. This network of actors relies on each other to communicate how things are progressing and to make sure the patient or citizen is receiving proper, quality, and correct care.

Overlapping with the prevention arena, but not a part of one of the three arenas, is the actor world "*the daily life of citizens*". This actor world is concerned with daily tasks, the good life and everyday tasks and agendas. It is populated by all types of citizens and filled with different localities, representing the homes, workplaces and other locations where everyday life takes place. The actor world is slightly overlapping with the prevention arena, because if a citizen is living with a disease, then their everyday life will include following events happening in the prevention arena. This actor world is the centre of attention for the arenas. The overall goal of the domain, and thereby the arenas, is to keep the actors within the actor world for as long as possible. And if they happen to need to enter the arenas, they will be prepared.

### **Arena of diagnosis - What is wrong and how can we help**

The arena of diagnosis is primarily concerned with diagnosing citizens and planning their treatment accordingly. In this arena, 4 different actor worlds, that are mostly occupied by the same actors,



meaning that the actors of one world appear in others. Actors in this arena, migrate between different actor worlds, to execute different agendas. In the actor world of '*diagnosis of non-acute illness*' physicians such as general practitioners, translate knowledge of the patients' medical history, and the symptoms they see and use their expertise to determine a diagnosis, refer the patient to a specialist if needed or migrate to the treatment arena to start treatment immediately. Referrals to specialized treatment, do not always happen within the diagnosis of acute illness world, but can also happen within their own. These might happen via telephone or digital consultation services, where physical presence isn't needed. The planning of treatment is viewed as its own actor world. This is where the physician narrates the course of treatment together with the actors that are relevant to the individual patients' needs. This is an actor world where actors are invited into the world but don't necessarily stay permanently. An actor world within the diagnosis arena, which is important to highlight, is the actor world for *planning and communicating in-home care*. Actors within this world are constantly translating knowledge across boundaries, to discuss how, when, and why a citizen needs in-home care. Their matter of concern is to communicate efficiently, so that the personnel in charge, knows enough to be able to provide the necessary care. This actor world is particularly challenged by the different software of the sectors and the boundaries that they create, for their ability to knowledge share.

Easy to miss, but highly important, a small actor world has made itself present at the intersection between the prevention and diagnosis arena. The actor world of 'whole person health'. This actor world is concerned with promoting, incorporating, and utilizing the newer treatment paradigm of whole-person health. We are particularly interested in this world, because of its connection to the meanings of social sustainability and our belief that whole-person health will be a part of pushing the treatment paradigm of the entire domain.

### **The treatment arena - providing the best possible care**

The treatment arena primarily consists of pre-existing actor worlds, that existed before the near healthcare domain and would continue to exist without it. But we are interested in what agendas they have and roles they play in the treatment arena of the near healthcare. The dominating actor worlds are '*treatment of acute injury*' and '*treatment of non-acute illnesses*'.

In the actor world of acute injury, a large variety of actors are present to provide quick and efficient services, that are available 24/7. Actors such as paramedics, ambulance drivers, nurses, and trauma personnel, come together to assess the severity of the injury and provide treatment accordingly. This actor world consists of a very large actor-network, giving the actor world the ability to provide a broad spectrum of services and diagnostic options. This actor world

operates in very specific localities, all primarily located within hospitals or acute clinics in community health centres. This actor world is complemented by the actor world of *'treatment of non-severe illness'* – which provides treatment to citizens who for example have the flu and need penicillin, have an infection, or need other non-severe treatment. The most common actors in the actor world are general practitioners and nurses, working in smaller clinics in the local community.

Within the treatment arena, we identify and acknowledge two other actor worlds, positioned outside the near healthcare domain, but what they do affects it. First, we have *'treating severe illness'* this actor world handles patients in need of surgical care or longer treatments, such as cancer patients or neurological diseases. Their agenda is to get patients, back to being citizens as quick and efficient as possible, while providing qualitative care along the way. Secondly, we identify an actor-world we define as *'treatment outside the public health sector'*. In this world resides private actors providing healthcare services and treatment offers, that are not a part of the national health services and thereby not covered by the state. These providers offer quick access and a large variety of specialized treatment, taking the overflow of patients from the public sector, as well as those who wish to pay for their quality and accessibility from their own pockets or insurance policies. These two actor-worlds can send

their patients back into the near healthcare domain when finished with their treatment. For example, they can communicate with the municipality, about arrangements for rehabilitation, follow-ups, or in-home care.

### **Managing the near healthcare domain**

Even though there are multiple arenas and many actors with many agendas, there is still a great potential in designing for a successful near healthcare. Within the domain, but not in a particular arena, we place the actor world of *management and healthcare strategies*. The actors of this world are influencing what goes on in the arenas, through the narratives they create, based on laws, and regional, and municipal strategies. Their concern is to implement near healthcare initiatives, negotiate healthcare strategies and drive CHC's. The capital region and Elsinore municipality have a strategic partnership in the near healthcare domain. Elsinore municipality will attend meetings in the region and apply strategies and decisions made in the region, out in the municipal, as well as designing local strategies and initiatives. The near healthcare domain was created based on a national vision, to strengthen the healthcare system and provide services closer to the citizens. This actor world is actively trying to bring worlds from the three arenas closer to the citizen's world, to be able to bring services closer to home. After the closing of the local hospital, it was decided at a regional meeting that a CHC was to be built

in Elsinore and Frederikssund, to cover the northern Zealand district, with a super hospital in Hillerød. Elsinore has claimed a responsibility to design strategies to solve the implementation and practical side of the regional visions for the near healthcare. A task that is immensely difficult to solve, based on the multiplicity of actors and entities involved. As we know from the research group's study, physicians as well as administrators value coherence in the system as the most important factor for providing nearness in healthcare. And in the current system, we do not identify many coherence pathways across the different arenas, which supposedly should provide more nearness in the system, which was also a part of the vision, to begin with.

The vision of the near healthcare was to bring together these arenas in shared localities, where cross-collaboration between actor worlds could be initiated and designed to create more coherence in the patient pathways, along with an increase in quality of care and number of services available, all close to home. But bringing these arenas closer together does not foster these collaborations on their own. Informal relationships might form, like in the current Elsinore CHC, but in most cases, they become simple brick communities. The current treatment paradigm, as mentioned earlier, is not one to foster cross-sectoral collaboration, and the healthcare offers are continuously divided in the actor worlds as well. What we see today

in Elsinore, is that the municipal services are gathered in the Elsinore rehabilitation and training centre (HRT) in Snekkersten, the regional services are in a privately owned building in the city centre, and the private healthcare offers are scattered around the city in various rentals. One of the largest barriers, to this collaboration, is software and more specifically electronic health records (hereafter EHR). In Region H, a software programme called '*sunhedsplatformen*' (SP) is the primary journaling and overall healthcare system, used across hospitals and general practitioners, to write up charts, lab work and other health and treatment information. This journaling system is only accessible to those employed in and by the region, as well as the patient and next of kin if they are given access. Opposite SP, in Elsinore municipality, they have an EHR called NEXUS Citizen which is an '*omsorgsjournal*'. This record is created if a citizen is in for example rehabilitation, a training program needs assistive medical devices or receives home care services. These are all municipal controlled services and are accessible to municipal workers, the citizen and if needed, next of kin. Every private actor, who is not employed by the region or municipal, has their individual journaling system. This renders the physicians a bit helpless in terms of information and knowledge sharing between them when citizens travel between arenas.

# Staging negotiation spaces - Engaging the case house project leader

*"All the world is a stage!"* – a set of intricately constructed words by William Shakespeare.

In this project, the staging negotiations spaces framework (SNS) (Pedersen, 2020) was used in an interview setting with Hanne Vig Flyger, who is the project coordinator in Elsinore Municipality, in charge of healthcare services and organisational structures in the new CHC. The purpose of the meeting was to first, engage Hanne in the topic of social sustainable healthcare and secondly open up for negotiations on strategies discussed on topics such as collaboration, accessibility, and the concept of near. And lastly, the meeting was staged to facilitate a translation of knowledge on the relations and constellations of the proposed actor-network. I was particularly interested in getting clarifying answers to, for example, questions about how they decide which services to bring to the new CHC and how that election process takes place. Moreover, I was very interested in deciphering whether the municipal had negotiated and planned out a "house" strategy, for how the cross-sectoral collaboration should function.

## Staging negotiation spaces - Engaging the case house project leader

To frame the space, the designer formed an interview guide with semi-structured questions to lead the conversation (see appendix

F) (Rasmussen, 2022, sec. F). This interview guide generally contained open-ended questions, which was a strategic choice to frame the space openly and I was prepared to let the conversation flow around the questions but ask more directly if they were not covered. Most of the questions were related to subjects such as '*strategies for collaboration*' or '*intended actors at play*'. As a part of the staging, I had before the meeting, prepared a project brief, explaining the overall concept of the project and the intention of the meeting (See appendix G) (Rasmussen, 2022, sec. G). This was sent to Hanne a few days before the meeting, as a way of preparing her for what the meeting was about and initiating thoughts that could be further negotiated at the meeting. I choose to do so, because of the limited timeframe of the meeting, so that I could get the most out of the 30-minute meeting that was scheduled. To mediate the translation of knowledge, I designed a potential intermediary object, that could be put into play, as something to talk from and talk about. This object was a drawn actor-network of the future CHC, based on the existing knowledge at hand, from the Elsinore webpage, regional reports, and the tour with Jan. The network was drawn in on the digital platform MIRO<sup>®</sup> and was then printed out in A3 format and brought to the meeting (see appendix H) (Rasmussen, 2022, sec. H). Along with the printout, I brought three different coloured markers, matching the network, as well as mini post-its to write on. My initial interpretation of the network was laid out on paper, and through



negotiating how who and why actors were chosen for the house, I could then add connections and or delete irrelevant ones. As Signe Pedersen writes *“The designer’s primary job is to enable negotiations that allow central actors to bring their concerns to the table”* (Pedersen, 2020, p. 77), it is important to remember that it is not the designer’s job to make actors say or do, but simply provide a space, where concerns can be raised, and negotiations can take place. The designer may structure a specific wanted direction but need to be able to adapt to the situation and translations taking place.

### **Engaging the municipality in the discussion on social sustainable healthcare**

At the beginning of the meeting, I was encouraged by the participant, to introduce the design project and the overall theme briefly. As mentioned, I had, before the meeting sent a project description to the participant, but due to illness, she had not been able to read it before the meeting. This caused an unintentional re-framing of the initial intention of the staged space, and time had to be spent on explaining the project (Pedersen et al., 2022). However, this led to the participant asking clarifying questions, to be able to fully understand what the project was about and what the background for the meeting was. At the same time, this opened the negotiations on the understanding of social sustainability. A clarification of the concept was needed, as the participant did not know how to define it since

it was not part of the municipal sustainability strategy. But when I initiated the description of how I understand and define the concept, the participant contributed with her understanding and how it had a high relevance in her profession and responsibilities, within her department. Hanne explained how her understanding of sustainability usually meant something with CO2 emissions or food waste and when we further discussed the topic of social sustainability, she mentioned how it made her think of the elderly and social inequality. But through discussing my thoughts, meanings, and historical research on the subject, she became vastly interested as it meant a lot in her line of work.

Initiating this negotiation with her can start a conversation in the network of the participant after the meeting, which would deem the meeting a success, from my point of view, as it would mean that I had started a translation of knowledge going through the network. My intention with this project is to strengthen their knowledge on the topic, and I will therefore provide Hanne, with even more knowledge to use as an interessement device, for her colleagues within the municipality and the network she is build-ing in the new CHC. After the clarification and obvious interest in the concept, the designer turned to the interview guide, to move the conversation along.

## Negotiating Strategies

Before the meeting, I had listened to a radio interview, on Radio FRI Elsinore, from 2020, where the participant Hanne, was in-terviewed about the community health centre project (Radio FRI Helsingør, 2020). This interview answered some of the initial questions, such as which municipal services were to move to the new house and whether sustainability has been on the development agenda. These answers led to other questions that then, could be negotiated in the meeting. The questions formed, were based on knowledge obtained from the historical and empirical findings as well as the tour with project manager Jan.

I asked *“How have you decided on which healthcare services to offer in the house? – Which were a given and which were up for debate?”*

Hanne then explained that it started as a municipal process where the city council had to decide on which of their offers to move to the new CHC. Many options were on the table including the Elsinore Rehabilitation and Training centre (HRT), school nurse and home-care services. The decision was made in 2017 that the entire HRT services, the municipal nursing clinic, open counselling, dementia- and incontinence coordinators and the secretariat of health, should move to the new location. Most of these services are located together now in Snekkersten, and the secretariat is currently located in city hall, so bringing them together will vacate community buildings

that can be repurposed.

I wondered whether the psychiatric services had been a part of the discussion since psychiatry usually is separated from other health-care services and always gets alienated. Hanne had taken notice of this early on in the development process and described how it has been mentioned, but no efforts were made to include them in the design of the new house. However, she mentioned that the regional psychiatric care is highly interested in a collaboration with the new house, even though they might not relocate thereto. This could possibly be the start of cross-sectoral collaboration, bringing together municipal and regional services to provide better patient pathways. Knowing this, I drew a new network line, on the paper, between the municipal and a new post-it, with regional psychiatric services on them. Adding a possible future connection to the network.

Moving away from the topic of negotiating healthcare services and talking more about strategic choices, I asked if there had been made any *“game rules”* for the way things should function in the house. But no – not yet, as Hanne says. Only informal requests and thoughts have been brought to the table. For example, private actors have requested access to the training facilities of the rehabilitation wing, which is run by the municipality. To accommodate these requests, a shared booking system for training facilities and shared

meeting rooms will be made available to all physicians in the house. This also created a new connection in the network to a non-human actor, that will make itself present in the new network and connect many actors of the network to physical spaces.

From the historical overview, it became clear that cross-collaboration was an important vision in many of the outlines created for the near healthcare. This led to me asking *“Have you planned for any strategic measures for how the cross-sectoral collaboration will work?”* and I commented on, the fact that Hanne mentioned the development of fora, in the radio interview, to help initiate and foster collaborative initiatives (Radio FRI Helsingør, 2020). She explained how they are currently testing some cross-sectoral patient pathways, to gain more knowledge on how they are affected and how they can enhance coherence. But Hanne highlights that this is the hardest area to design initiatives for.

It has been up for negotiation whether a shared CHC leader, should be prioritized, that would be hired in both the municipal and the region, who can help foster collaboration across the different sectors and become the facilitator of innovative initiatives. This is currently not the plan, but they are trying to work it into the budget.

### **A surprise intermediary object.**

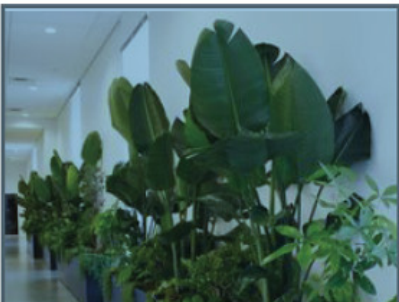
As previously mentioned, I had drawn the potential actor-network of the new CHC and wanted to utilize it as an intermediary object to guide the discussion on potential actors in the house, services, and collaboration strategies. Some new information was added to the network during the conversation but what surprised me the most was that Hanne introduced her own object to translate the needed knowledge between us. Hanne introduced a PowerPoint presentation that became an intermediary object because it helped mediate the conversation and contained the necessary information I was seeking (see appendix I) (Rasmussen, 2022, sec. I). This caused a restructuring of the space because the intended object did not reach its full potential, but other objects were introduced and circulated instead. My assumptions about the structure of the potential network were confirmed since no official strategies or rules had been formed.

And what I especially took notice too, from this interview, was that they are currently continuing with business as usual, even though they could reinvent and implement strategies that match the visions of the near healthcare and the municipal. There is a clear lack of knowledge on how to translate concepts and visions into actional strategies and initiatives. Before the meeting ended, I wanted Hanne to elaborate on the question *“Has sustainability played a role in the development process?”* – elaborating further on what was mentioned on the radio and what I had learned from the tour with Jan. I

remembered how Jan had described the plan for solar panels and charging stations for electric vehicles (see appendix D). Hanne argued that the sustainability debate had moved a lot over the past five years, and when the house was drawn back in 2016, it was not on the agenda in the municipal to integrate sustainable thinking in the development process. Hanne depicted that if they were to restart the process, it would have a whole other significant meaning. Lastly, I asked Hanne if they, in Elsinore municipal, had defined what near means to them. Hanne explained how they previously had considered near as purely geographical but recently had started to take the relationship between physician and patient into consideration. This supports the arguments made earlier, on the local adaptations and how near is inscribed different meanings.

Through mapping the development arena, I have discovered how worlds of actors with different agendas work in arenas to try to fulfil the purpose of the domain. I have tried to visualise the complexity of the system and learned more about how it can be pushed, persuaded, and changed. Combined with the learnings from the tour with Jan Inslev and the meeting with Hanne, I have gained a broader understanding of what is happening in the arena, related to the case study and what is going on with the new development in Elsinore. This will, together with the historical knowledge and state of the art, lay the foundation for the construction of a new concept.

# 5.0 Design solution



# Conceptualising

## Defining social sustainability in a Danish healthcare context

By now I have gained insights into how social sustainability is portrayed and conceptualized in the historical setting and more specifically within healthcare. But there is still a large gap in defining what social sustainability means in a healthcare context and what that means for the practices taking place in the domain. The following section will be my qualified contribution to what social sustainability means within healthcare and which values it can bring to the system. Social sustainability within healthcare does not necessarily need to be quantifiable. It must make sense to those performing social sustainable practices and to those receiving care, where social sustainability is integrated. Before I define the concept of *socially sustainable healthcare*, I will look closer into how the word and current concept of social sustainability creates value within healthcare.

## How social sustainability creates value in the healthcare system.

The word sustainability does not hold direct power when used within healthcare. Patients and physicians do not care if something is labelled sustainable but are concerned with receiving and providing treatment of high quality, that solves their issues. Sustainability is moreover used as a governing and political tool to promote the work of the system rather than ensuring how it functions in practice. Therefore, sustainability is sought to be quantified so that it is possible to measure and promote progress. The word itself might

pique the interest of some, as to why it is called such, but on its own, it does not provide a significant value, to those using the system.

For the healthcare system to know how it can contribute to the field of social sustainability, it is important to define how healthcare practices fit into what we know about social sustainability. To define social sustainability within healthcare, I draw from the knowledge obtained in the literature review on well-being research and whole-person health, as well as the historical knowledge of the near healthcare, and from the research done previously by the students and researchers.

I partially follow the meaning of the concept of subjective well-being and how it shows a balance between emotional, psychological, social, and spiritual well-being. But well-being research tends to side-line the physical well-being and does not consider surrounding circumstances that might impact the four elements. Within healthcare, there is a particular interest in physical well-being as well as psychological, emotional, and social. Spiritual well-being is moreover not that present within primary healthcare. In recent studies, the newer treatment paradigm of whole-person health has emerged slowly, primarily in the US and Australia (National Center for Complementary and Integrative Health (NCCIH), 2021; Thomas et al., 2020; Tilson et al., 2020). The concept includes both the physical, the subjective state and the community and population in its para-



digm of how practitioners and organisations should view and promote healthcare.

### The process of designing a new theoretical concept

The design synthesis of this proposal is to merge the concepts of social sustainability, well-being research and whole-person health, to create a concept that can complement the overall sustainability agenda together with environmental and economic perspectives. My proposed concept of socially sustainable healthcare is designed based on the visions for the near healthcare, existing research about human well-being, knowledge of present and possible treatment paradigms, specifically whole person health research. Furthermore, this concept reflects my knowledge from the previous research project on patient experiences as well as the research group's findings. To acknowledge the need for contextualising when working with social sustainable concepts.

Firstly, I draw from NCCIH's proposition on whole-person health. Specifically, their four levels of empowerment when working with the promotion of health and prevention of illness (National Center for Complementary and Integrative Health (NCCIH), 2021). These four levels are the foundation for what I will later describe as circumstances. Secondly, I respect the bio-psychosocial model, when it comes to the importance of including both the biological, social,

and psychological states when working with healthcare (Borell-Carrió et al., 2004; Karunamuni et al., 2021). But where the biopsychosocial model comes short, well-being research fills in. From the research on well-being, I draw upon the different categorizations of what well-being is conceptualised as. Well-being is differentiated into, for example, *social, emotional, psychological, and spiritual* described by Lindert et. al., (2015) or *physical, mental, social, and environmental aspects of living* as described by Pinto et. al., (2017). Lastly, the concept presented by Helne & Hirvilammi (2015) on the relationship between well-being and sustainability has been a con-

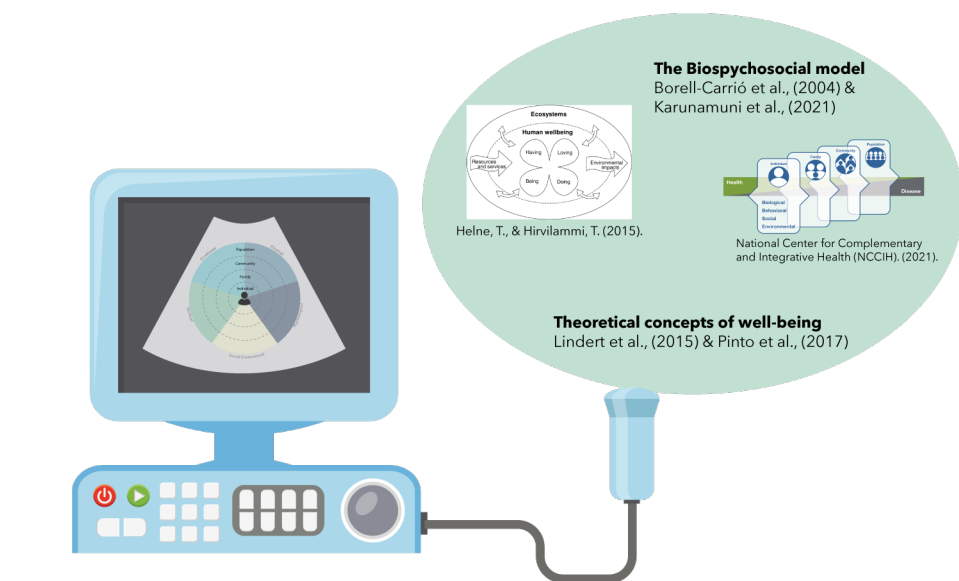


Figure 9 - Conceptualisation process - own illustration



firmation of the importance of connecting sustainability to healthcare and well-being research. From their research I include the understanding of human well-being as, *having, being, loving and doing* to fulfil human needs. (Helne & Hirvilammi, 2015).

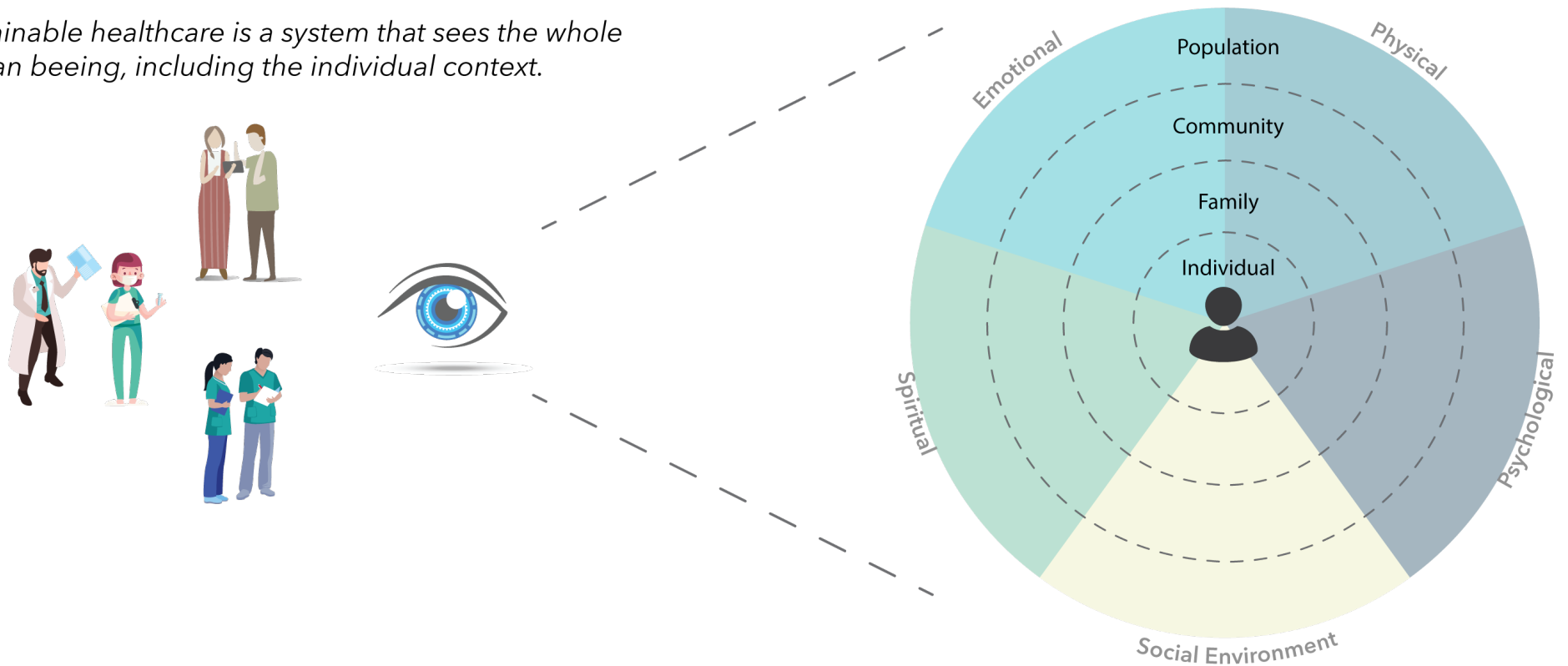
All of these different theoretical concepts have inspired me to design a new theoretical concept that can grasp socially sustainable healthcare in, what I perceive to be its whole. As you can see in the illustration above, many different concepts have gone into the design and combined with my knowledge and case interest in Danish healthcare, the concept of socially sustainable healthcare was created. In the following section, I will describe in detail what the different elements mean and how they contribute to seeing the human as a whole when working with healthcare.

### **Socially sustainable healthcare**

A socially sustainable healthcare system is one where a human is seen as a whole, and the individual context is considered. If providers of healthcare see their citizens or patients through this new treatment paradigm, they will contribute to providing socially sustainable healthcare. I consider the whole human being based on five essential elements (the coloured triangles), that are affected by the individual's circumstances (the circles). The five essentials consist of an intertwined state of physical-, emotional-, spiritual- and psycho-

logical being and the social environment. These five essentials can then be strengthened or weakened by the circumstances surrounding them. The circumstances are divided into four layers: individual, family, or next of kin, community, and population. As Torsten Risør and Frede Olesen concludes in their article "Den praktiserende læge", adding an analytical level in the consultation is possible, to understand the patient as more than the diagnosis (Risør & Olesen, 2004).

*Social sustainable healthcare is a system that sees the whole human being, including the individual context.*



**Individual:** Patient or citizen  
**Family:** Next of kin or close relation  
**Community:** Neighbors, colleagues etc.  
**Population:** Cities, regions countries etc.

Figure 10 - Own illustration of the theoretical concept of Socially Sustainable Healthcare

## The five essentials

To reduce the complexity of the five essentials I will in this section describe each of the five essentials and they will be coupled with examples to demonstrate their meaning (see figure 11).

**Physical** – this essential is concerned with the physical health of the human, meaning the absence or presence of illness. The physical aspect is often viewed as the most central element to human health and is the subject of the mono-sequential treatment model, where you are your diagnosis. By placing the physical essential sidelined with the other four, I want to highlight the importance of not only seeing the human as a symptom or diagnosis – but, as a whole.

**Emotional** – The emotional essential concerns the behaviour and feelings owned and portrayed by the individual. How we take in information, how we process it, and how we react, is a very important part of seeing the human, as a whole. This essential has been a part of medicinal research for many years and is often acknowledged within studies concerning communication and healthcare information (Ong et al., 1995).

**Spiritual** – This essential is not usually a part of the common (physical) medical practices. The spiritual essential is concerned with the individual's sense of purpose in life. The spiritual essential can be

linked with the sense of the quality of life, as described in the literature. The individual's perception of their position in life is connected to their goals, community, culture, religion, and values (Pinto et al., 2017). Therefore, it is important within healthcare to acknowledge the individual's perception, as it might affect how treatment or services needed, can be followed and inherited.

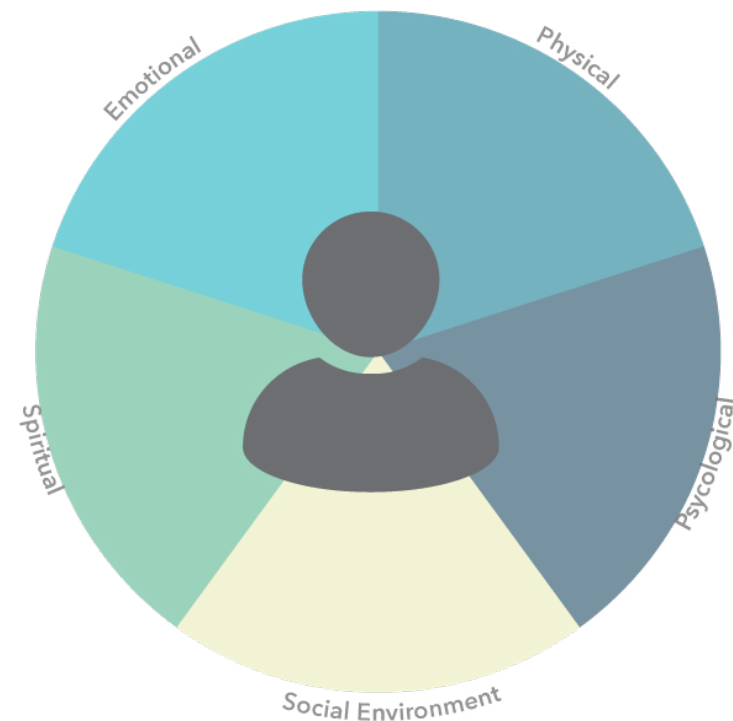


Figure 11 - The five essentials - own illustrationcare

**Social environment** – Which circumstances do they live in? This essential concerns the individual's relations to others, their local environment and living situation. We know from the literature that the social environment has a great impact on the individual's health and ability to maintain a healthy life as well as receive the needed support to do so (Capolongo et al., 2016; Pinto et al., 2017).

**Psychological** – The psychological essential is often ostracized or separated from physical healthcare treatment paradigms. Healthcare services concerned with the psychological, are often located away from other healthcare services, which does not help in terms of ostracizing, patients and illnesses related to the human psyche. This happens even though research shows that the psychological aspects are important to consider during treatment and are inter-related with many other types of physical illnesses (MacLeod et al., 2019; Vögele, 2015).

The five essentials are interrelated and should be considered as such when providing healthcare services, whether it is prevention, diagnosis, or treatment.

## The four circumstances

When looking at the human as a whole, it is important to consider the individual's circumstances. I will, therefore, explain why including circumstances in the concept is important for social sustainable healthcare (see the circles in figure 12).

**The individual** – the inner circle represents only seeing the person standing in front of you, without considering anything around them. The mono-sequential treatment model operates inside this circle, and the concept of social sustainable healthcare looks beyond the borders of the individual.

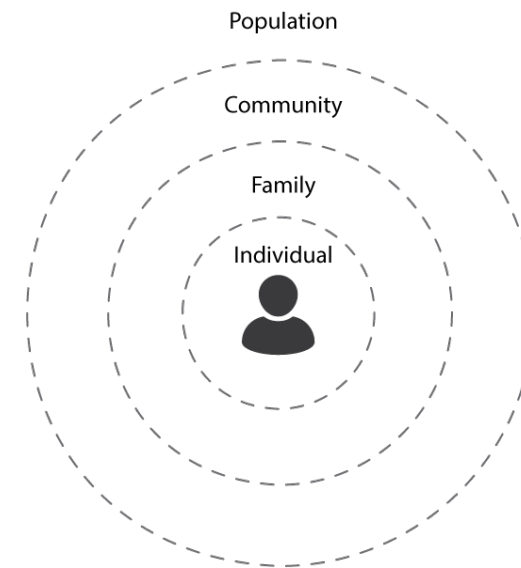


Figure 12 - The four circumstances - own illustration

**Family** - Family or next of kin have a known impact on healthcare outcomes and a citizen's ability to receive and follow treatment. This is already being considered in many areas of treatment, such as disability, paediatrics, and the elderly. This concept highlights the importance and value of taking a citizen or patient's family circumstances, into consideration throughout the patient journey (Halvorsrud et al., 2019). The literature on medical practices also states that family history and knowledge of family diseases are very important for decision-making processes related to treatment and care (Busch et al., 2019; Sturmberg, 2018).

**Community** - Seeing community circumstances, is considering the individual's locality and practices when out in the community. What do they do for a living? Do they have high or low demand jobs? Do they partake in sports or other after-hours activities? Considering what and whom the individual is surrounded by and what activities are a part of their everyday life, contributes to an understanding of the human as a whole (Diener et al., 2018; Eizenberg & Jabareen, 2017).

**Population** - In the circumstances of population, is where we find research and knowledge of larger groups of people. Specifically, within healthcare, when deciding on a course of treatment it is common to look through research and knowledge of successes within

the population. It is how diseases are tracked and knowledge is shared (Capolongo et al., 2016; Gorli & Barello, 2021).

As you can see in figure 10, by bringing together the five essentials and the four levels of circumstances, I emphasize how social sustainable healthcare is a system that sees the whole human being and includes the individual context as a part of its whole. The concept of socially sustainable healthcare can translate knowledge on what social sustainability means in a healthcare context as well as provide an implementable concept that is adaptable to different communities of practice. The concept of SSH is particularly applicable to the Danish healthcare system and the vision of the near healthcare. The SSH offers a concept that has the opportunity to help promote and facilitate some of the strategies and visions portrayed in the near healthcare.

# SSH in a Danish healthcare context

To exemplify how I see social sustainability functioning in practice and to project it onto the case study I will in the following section present a series of action points designed for Elsinore's new community health centre, that is based on the SSH concept. The action points will be exemplified with the help of the three development arenas, and therefore reflect practices performed in and between the different arenas. These actions are to be performed or put into action by the municipality, the region and/or the physicians present in the CHC.

## The buddy system

If the municipal assigns a "buddy" to less resourceful patients, who might not have much in terms of their family or community circumstances, they could increase the health of citizens, who might not understand the medical lingo, be able to understand treatment terms or need help remembering appointments. This buddy could be medical or nursing students, firstly on a voluntary basis, to get more patient experience and eventually if successful it could be student positions. The students working as buddies would also gain from using their knowledge in practice, by, for example, explaining a diagnosis or course of treatment to a patient. Secondly, it is known that these voluntary buddies have an effect on, especially elders, the ability to maintain a course of treatment and feel seen and heard by the system (Enheden for Evaluering og Brugerinddragelse - Region

H, 2014). Lastly, the buddy system will work as a help to the general practitioners, who might not have the half-hour it takes to re-explain a diagnosis to a patient when the timeslot only said 15. Bringing the buddy system into action would have a positive effect on the system's ability to see the citizens as a whole.

## Training sessions timed with the local bus

This action point was suggested by the nurse and current SP application coordinator Marianne<sup>2</sup>, during an informal discussion of the concept. When SSH was explained, she then said, if group training sessions were to be scheduled according to how the local bus arrives, it would then accommodate the local community, and at the same time, more citizens might be likely to go, if they knew they did not have to wait half an hour for the bus or arrive five minutes late for every session. She highlighted how citizens would be less likely to cancel if their transportation possibilities matched. This action could be highly relevant in Elsinore because the CHC is located more than 800 meters from the stations and is therefore required to have a bus stop. The municipal has already added a bus stop on the perimeter and the bus circulates by the local train station as well. It would never be possible to tailor the training schedule to all citizens and patients who go to the CHC, but a group could be reached.

1: Marianne Agerlin, Nurse Anesthetist, and current application coordinator on 'Sundhedsplatformen' in Region H.

### **Smart scheduling - Respect for the patient's time**

We see more and more patients with multiple diseases and in need of treatments from different physicians and even cross-sectoral. If physicians were to work with the SSH concept, they could help their patients by trying to schedule appointments on the same days, close together, to make visits more coherent and fluent. Resulting in fewer travel days, fewer cancellations and physicians providing a near experience. This does not necessarily require access to a shared electronic patient journal, but most patients know if they are being treated for multiple things or their general practitioner functions as the primary contact and will know. This action could also bring a secondary effect, in terms of medical students, learning earlier on to communicate with patients and citizens in a language they understand, and at the same time prepare them even more for working, when finished with their studies. We know that a future wish for the Danish healthcare system would be one shared EPJ system, where sections are available on a "level of knowledge needed" basis. A system where the region, municipal and private actors share and can request access to information when required. But that is not possible before a national agreement can be made.

### **Shared booking system**

This action point is not new and will be implemented in the new CHC. But it is however important to highlight how this choice con-

tributes to working with SSH. It is planned, that the new CHC, will implement a shared booking system, that covers the training gyms and shared meeting rooms for all healthcare providers in the house. The shared booking system will help facilitate new practices, where practitioners share spaces and set up sessions close to their practice, that otherwise would be located elsewhere or conducted by another party.

### **Community events**

Creating and facilitating community events is one of the easier action points to realize. From the perspective of actors in the prevention arena, they can stage and facilitate community engagement. An example would be inviting patient associations to host events about a healthcare topic, for a specific target group or disease, they can therethrough help strengthen both community and the individual's emotional and psychological essential.

### **Seeing the five essentials and not only one.**

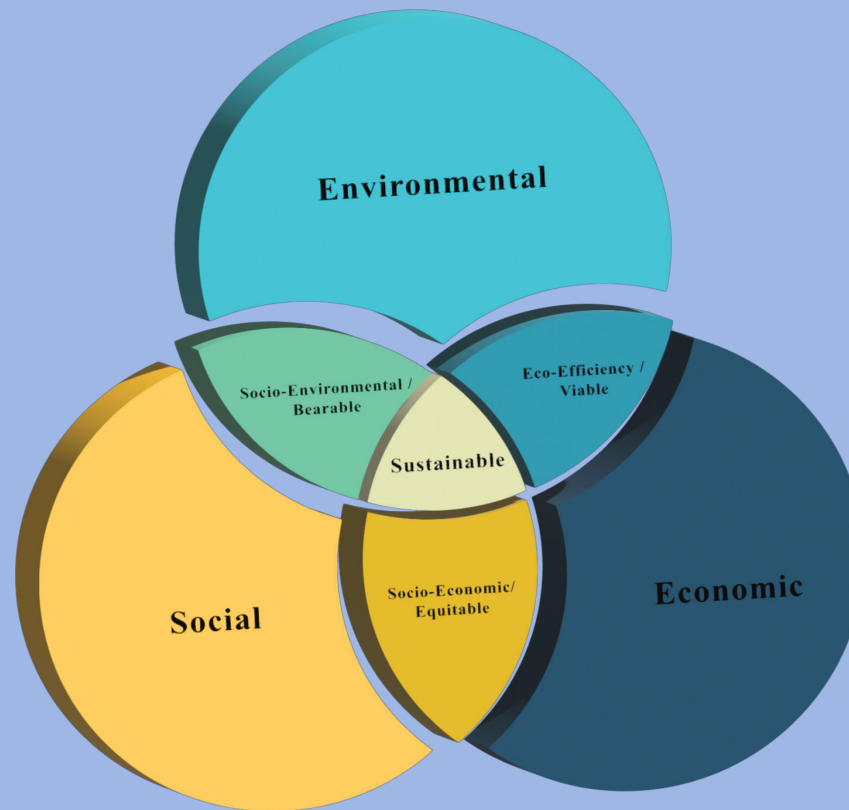
Primarily from a physician's perspective, to expand the patient view from only seeing the individual as a diagnosis or group of symptoms, to seeing the human as a whole and through this making the patients feel more seen and heard. Seeing the patient within their circumstances, the human is a much more complex entity than a simple diagnosis or broken arm (Solid, 2022). This patient view and



conceptual change will take time. A way to promote the SSH concept and start the engagement of actors could be through shared meetings and workshops. By inviting the stakeholders into a staged space, where concerns can be raised, knowledge can be shared, and they can learn more about the intended practices and how they can contribute to using the SSH concept.

It would be an impossible job, to design action points that on an actor level would cover all aspects of the SSH concept in one action. But the design of the concept is based on an integrative approach and should be used in multiple settings. As a design engineer, I am not an expert on healthcare practices, and that is why, Elsinore municipality will need to include the practitioners of the new CHC, in the strategic planning and use their insights to further plan how the SSH concept can be utilized and implemented in the house.

# 6.0 Discussion



# Can the Danish healthcare system be pushed?

## **Transitioning the near healthcare from concept to practice**

Research on how and why actors resist change when introduced to innovative ideas and development processes has been central to many scholars working with management and organizational change. From a socio-technical perspective, we see the mono-sequential treatment paradigm as the current regime, that holds the power, where whole-person health and more importantly socially sustainable healthcare are upcoming niches (Geels & Schot, 2007). Geels & Schot (2007), view transitions as a change, stemming from the outcome of power struggles, conflicts, and negotiations. Socially sustainable healthcare (SSH) has the potential to overtake the regime and transition from a niche and eventually replace the current regime. But for this to happen, actors need to be enrolled and mobilised toward the agenda of socially sustainable healthcare. By introducing a more coherent and decipherable conceptualisation of SSH, the purpose is to enrol Elsinore municipality, to start the agency process (Köhler et al., 2017).

Creating agency to get actors to strategically join in on shared networks and thereby strengthen the niche's agency and grow larger until it is able to challenge the existing regime. For this to happen, they might need to hire or assign a change agent. The change agent takes the role of what could be described as a project manager or planner. A seemingly plain role, but the job of the change

agent consists in engaging and empowering the stakeholders, who seek to negotiate between them (Thaler et al., 1997). The change agent is adaptable and assumes an appropriate role according to the negotiations at hand. To bring about change in Elsinore, the change agent would have to begin knowledge sharing, explaining the concept and creating interest for SSH (Akrich et al., 2002; Callon, 1986). When stakeholders, such as physicians, feel included seen and heard during negotiations, they are more likely to become enrolled in the change agents' agenda, and eventually take ownership of the concept, because they have taken part in the negotiations and could end up as spokespersons for the concept (Callon, 1986).

## **Expected changes to the arena**

One way of seeing change or development in healthcare systems is through the teleological theory (van de Ven & Poole, 1995). Viewing development as something that is guided by purpose or goals, where the organization designs a desired goal or end state and then works strategically towards that goal. Goals are set, monitored, evaluated, and replaced by new ones. This would also happen with the implementation of SSH, goals are set for introducing, for example, the action points. Rules and frameworks for monitoring are then put into place, and evaluations are scheduled. There are no pre-existing rules for how to reach the goal, but the focus is on what needs to be attained and accomplished in order to reach the goal. When the

goal is reached, it does not adhere to a permanent equilibrium, the organization may create new development paths and push towards those. SSH could be seen as one of the possible development paths for designing a more sustainable healthcare system, but even if it is implemented who is to know if another path will open up in the future.

During the analysis, I described how the actor-world of management was trying to pull worlds and agendas from the other arenas closer to the everyday life of the citizen. Elsinore municipality, with Region H backing them, is trying to bring together healthcare services from the different arenas and providing a broad variety of services to accommodate as many citizens as possible and types of illnesses. I have illustrated the possible changes to the arena, by utilizing the same graphics as in the previous section (see figure 8).

The expected result of putting the concept of SSH into play is that the three arenas, all will be positioned closer to the actor-world of the citizens, as you can see in figure 13. Elsinore municipality, furthermore, tries to pull specialists from the treatment arena closer to the citizens and invite general practitioners to be a part of the house. From a formal agreement with the region, it was from the beginning decided to move the regionally driven acute clinic, currently located in the city centre into the house (Region Hoved-

staden, 2019). The region will now be able to offer more regionally performed services, such as dialysis, an orthopaedic clinic, and a children's- and youth obesity clinic closer to the citizen's homes (Flyger, 2022). The choice made to locate both regional and municipal services together bring benefits for both physicians, patients, and citizens.

It will create easier pathways for the patients because they have one location with most of their local healthcare offers all at once. For physicians, it will be the first step towards a cross-disciplinary network, where business relationships can occur, and possible new actor-worlds will appear in the arenas. The concept of socially sustainable healthcare is expected to be promoted from the actor-world of whole-person health, which I now have moved onto the domain, where it can grow and start enrolling more actors into the networks of its world (see figure 13).

Following what changes the agenda of Elsinore municipality, in regard to the new community health centre, makes to the arena, I want to feature some of the key actors, for promoting the SSH concept and how they come from different arenas and actor-worlds and can help interest their own networks, and help create new ones.

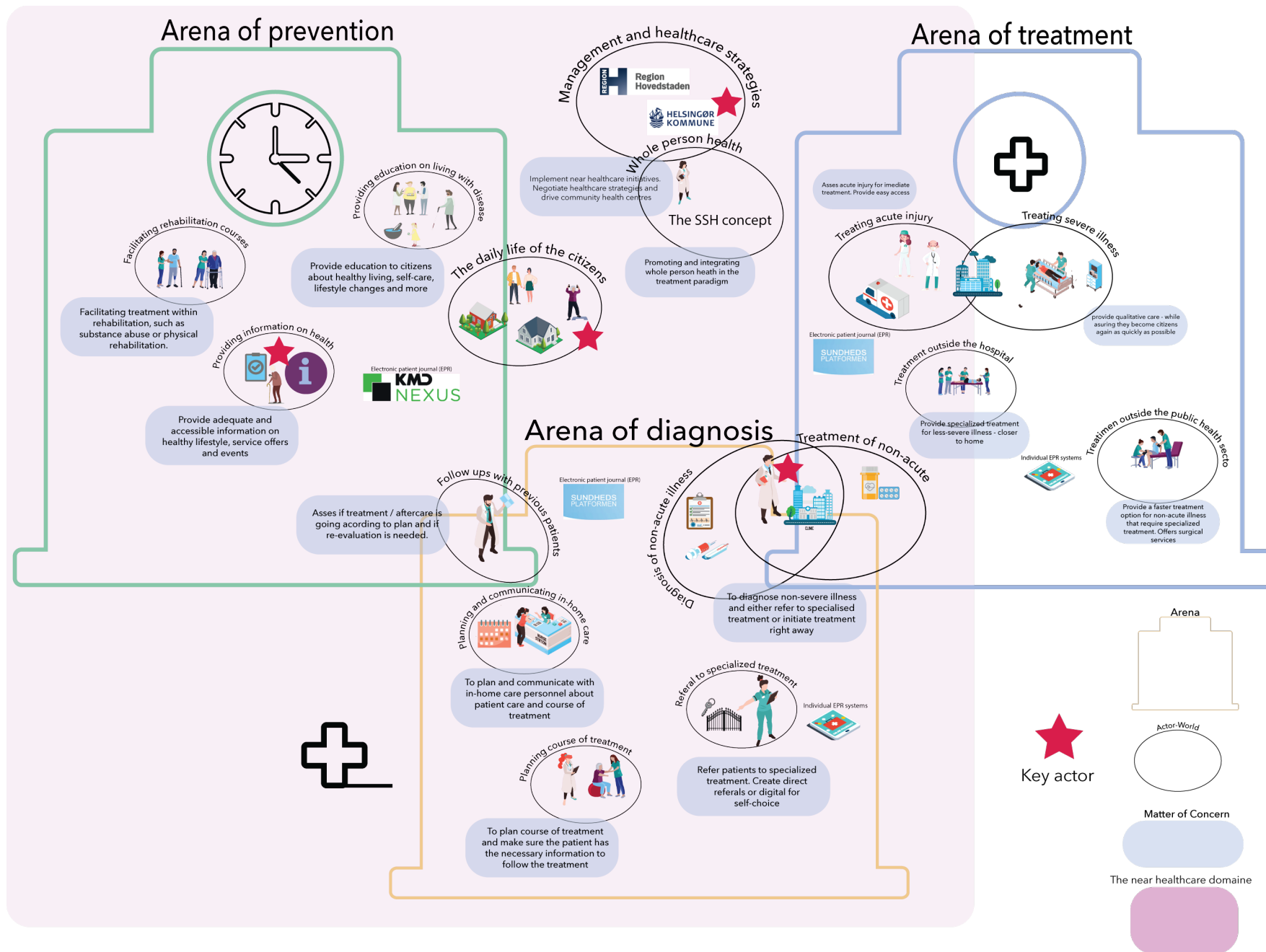


Figure 13 - Development arena with SSH implemented - own illustration

### **Key actors - pinpointing frontrunners for the SSH concept**

To illustrate the key actors, they have been marked with a pink star on the arena above. Elsinore municipality, and more specifically the department of health and care, are one of the most important actors because they are in a position of power in the CHC. They have the ability to bring together relevant stakeholders and stage negotiations on how they can implement the concept of SSH in the house. They might not know how to facilitate these negotiations, but the first step would be to interest the other key actors in SSH and get them to enrol their respective networks. I wish for Elsinore municipality to include the different physicians in the house in the negotiations, so that they can be a part of the process and take ownership of the strategies and solutions they come up with, instead of it being a top-down approach, which could result in more opposition (Sturmborg, 2018).

The general practitioners are considered key actors, because of their role as gatekeepers of the healthcare system. Some general practitioners have already taken to the concept of seeing the whole human, but as far as my research has led me, there are very few Danish practitioners that promote themselves as working with whole-person health. It is primarily known to be used within psychiatry or pain management, where the bio-psycho-social treatment model is the foundation of the use (Gentofte Hospital - Region H, n.d.;

Yngre Læger, n.d.). Besides the general practitioners, I consider the promoters of health very important actors. The actor world concerned with providing information on health, are possible promoters of how the SSH concept is utilized within the house and which effects it has on citizens, patients, and personnel. Taking on an important role of communicating the stories and narratives on how SSH is promoting health and which initiative and strategies are put into place to make it even better.

Lastly, if not for the citizens and patients, there wouldn't be a need for a community health centre or a near healthcare system. Therefore, the citizens and patients are considered key actors in driving the paradigm change and the implementation of the SSH concept. They are the receivers of care, the providers of results and the humans on journeys. As the SSH concept highlights, we learn a lot from looking at communities of practice and knowledge of the population, and this includes patient journey mapping and more knowledge on value creation tailored towards patient experiences. As mentioned at the beginning of the analysis, the word sustainability does not hold a strong power in relation to healthcare, but if integrations are made, that shows how sustainability provides value for the patients as well as the physicians, it can grow in power over time. Socially sustainable healthcare could be the first step towards creating that transition of the near healthcare form concept to practice.



### **Mobilising key actors**

To get to the point where actors have been interested in the project and stakeholders are actively working for the project. First then can they be mobilised, and the translation of key actors have been successful (Callon, 1986). Problematisation of the project have been established, through acknowledging the need for the near health-care and through the visions for creating a more coherent, near and strong healthcare. It will be my job as the designer of this theoretical concept to create the first interestment for the project, with Elsinore municipality. This interestment will happen at a meeting on Wednesday the 8th of June with project coordinator Hanne and some of her colleagues from Centre for health and care. I will stage a meeting where I through using the staging negotiations framework, will present and negotiate the concept of socially sustainable healthcare and why it is relevant for them to implement in the new community health centre. The second round of interessement should happen when Elsinore municipal invites the stakeholders of the new CHC to negotiate the concept, and Hanne and her colleagues will act as potential spokespersons for the project if the first interessement was successful. The second round of interessement can then lead to the enrolment of spokespersons who actively join in on the negotiations of the project. Lastly, if the key actors become spokespersons and take ownership of the project, they will take part in the shared agenda and the project can then be carried forward.

### **Strengths and limitations of the SSH concept**

In the historical overview, I put emphasis on how social sustainability, has received less attention over time and is considered a concept filled with ambiguity (Marimuthu & Paulose, 2016; Rogers et al., 2012). The sustainability agenda is growing, and a clarification of the concept is needed, in order to help guide the transition, in this case, to sustainable healthcare. Few have studied the role of social sustainability within healthcare and those who have, designed quantifying frameworks to try and measure the sensitive fields of human beings (AlJaberi et al., 2020; Capolongo et al., 2016; Marimuthu & Paulose, 2016; Stokes, 2022).

The concept of socially sustainable healthcare has its strengths in the way it defines the concept and helps to de-mystify what social sustainability means in a healthcare context. SSH is furthermore, contributes with an understanding of how social sustainability can bring value into healthcare practices, without the need to quantify and measure.

However, as with many theoretical concepts, there are limitations to what SSH can and cannot do. First, the concept requires a situational adaption, which highlights the importance of including knowledge of the community, population, and social environment. Secondly, the concept is not representational for sustainability in general,

it has been narrowed to social sustainability within healthcare, to reduce complexity, but it can be used together with environmental and economic concepts to strengthen the sustainability agenda within healthcare. Lastly, the theoretical concept of SSH is still a niche actor and needs the actors of the development arena to mobilise it.

### **The new healthcare reform 2022 and how socially sustainable healthcare can help the transition**

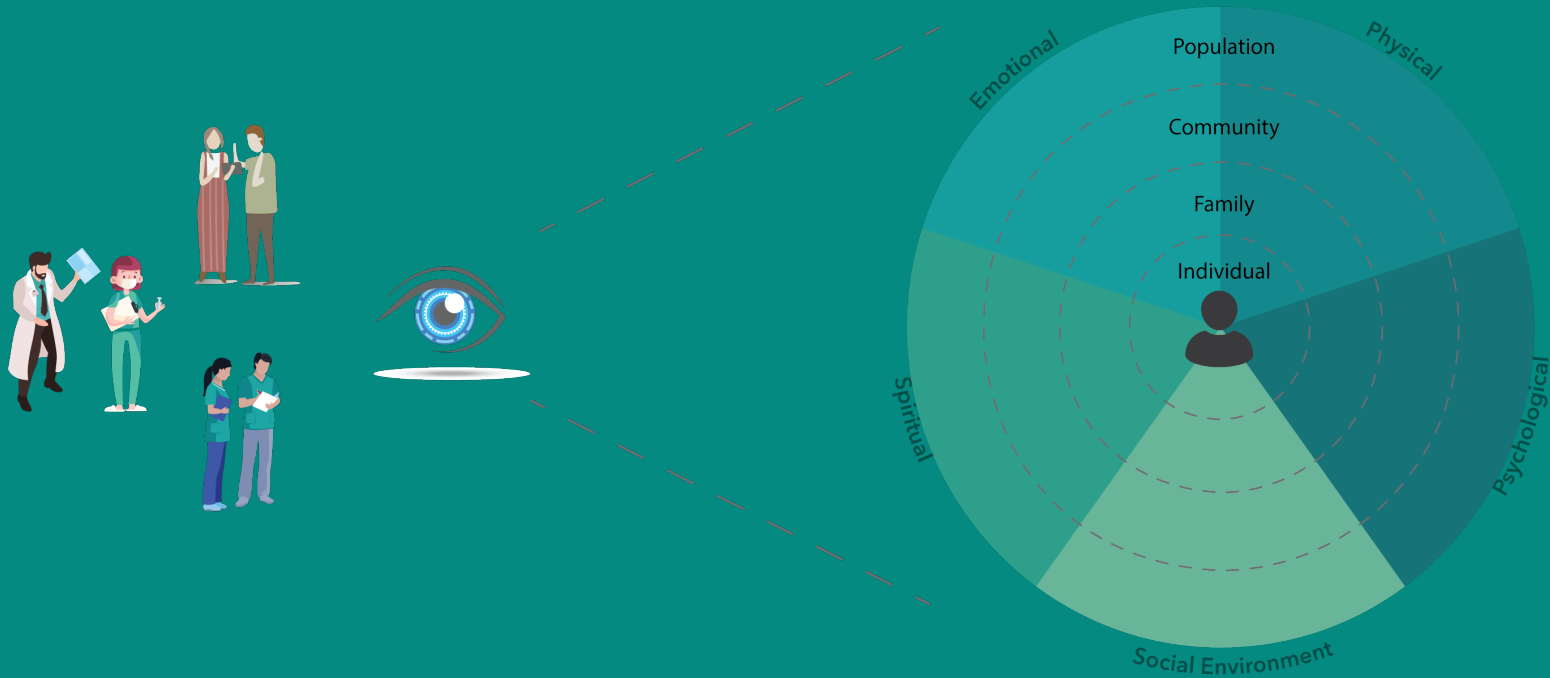
On May 20, 2022, the Danish Minister of health presented the new healthcare reform (Regeringen, 2022). The outline of the reform presents a governmental vision to strengthen the near healthcare and create a more coherent, near and strong healthcare system. In the proposal the governing parties agree upon, that focus has been on developing the super hospitals and the near healthcare has not been given the same attention and development has been slow. It has taken them ten years to realise that their plan hasn't been fulfilled and it is the same visions and concepts they propose now as they did back then. Coherent, so that patients have better experiences, and it can prevent re-admission and relapses. Bringing services closer to the citizen's homes, making it near, not only geographically but now also with more digital solutions, allowing for in-home monitoring. Stronger, more cross-sectoral collaboration and a formal partnership between sectors. Same wolf - new dress.

However, my personal opinion and frustrations on the matter, will not help the transition of the near healthcare. But I believe that introducing the concept of socially sustainable healthcare can help push the transition and lay the foundation for the strategies and coherence needed. The vision of providing more treatment offers within the citizen's home is a good initiative for resource strong citizens or citizens with good family or community circumstances. Coupling it with digital solutions, will offer more accessibility, and flexibility and for some offer more comfort if they can do consultations from their own couch. The implementation of a digital consultation or monitoring system could be a good action point, in relation to implementing SSH.

In the presentation, they state that the Danish Health Authorities are set to outline the quality demands and recommendations for municipal acute functions, which lie within the economic parameter (Regeringen, 2022, pp. 4-5). From there, the local health clutches, will explore strategies and make local agreements. It is, furthermore, the Danish Health Authority's job to define a clear difference between what a community health centre is and a near hospital. For now, the only significant difference outlined is, that there will be no medical beds in the near hospitals. It can be discussed, why there is a need to define a new concept before the old one has been clearly defined.

The increased political agenda pushing for more sustainable solutions, organisational integration, and promotion of sustainable initiatives, has not completely found its place within Danish healthcare. But with a new reform, and many new visions that need strategic planning, it is adamant that sustainability gets to play a part before we change the healthcare system once again. The concept of SSH has the potential to be a part of transforming the visions of the reform from concepts to practice.

# 7.0 Concluding remarks



# Conclusion

As introduced in the beginning, this thesis has investigated the concept of social sustainability and its relation and value creation within healthcare. In seeking to clarify the concept and its meaning, this paper is a contribution to answering the following research question:

*“How can I as a sustainable designer by defining social sustainability in a healthcare context, help transition the near healthcare from concept to practice?”*

To seek clarification of what social sustainability means and how it is characterized in a healthcare context, I performed a rather extensive literature search, where the knowledge gained only led to more research. Well-being emerges as the most used description of what social sustainability means, however, it is emphasized that the concept continuously is inscribed with ambiguity and is hard to quantify. Most research on social sustainability in a healthcare context focuses on how well-being can be measured and how frameworks can be designed to do so. But the research does not make the concept any less confusing. I have throughout the state of the art, tried to show how the vagueness of social sustainability has led researchers away, rather than towards defining a theoretical concept that can be used in practice. Leaving a large gap, where my research could take place and design a new theoretical concept to represent

social sustainability in a healthcare context.

For the past ten years, the development of the near healthcare has been slow, and the Danish government have come to the realization that greater effort must be put forward, for the visions to be realized. Consequently, local adaptations and developments have been made over the past 10 years, and not much have become of what was intended. The community health centres that have been built, are primarily either focused on single patient groups, such as psychiatry or they are considered brick communities with no formal collaborative strategy. Thus, promoting a system that is able to care for and respond to the needs of the heterogeneous patients.

Despite the work of this thesis being primarily theoretical and analytical, the concept of socially sustainable healthcare fills a gap in the literature as indicated in the state of the art. The community health centres need a guideline, as to how they can convert the governments vision of the near healthcare into actional strategies. The concept of SSH will help ignite negotiations on how strategies can be formed to translate visions of coherence, nearness, and strong healthcare into practice.

This thesis was aimed to contribute to the research done by Pedersen et al., and the previous research done by me, and my fellow students. Furthermore, by using a case study to show how the the-

oretical concept could work in practice, the project will contribute to framing negotiations with Elsinore municipality. In addition, designing concepts and strategies with a sustainability component is adamant for the work of a Sustainable Design Engineer and was the case during this master thesis as well. This thesis takes the topic of socially sustainable healthcare into the political debate, to show how we can design future solutions in Danish healthcare, where sustainability is a part of the foundation.

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## Reflections



When I started this project, I had a plan that this would be a grand co-design project, with a focus on patient pathways, as a continuation of the previous project. But design is never linear and iterative processes are unpredictable. This project surprised me in many ways. It took me a long time to decipher where to narrow down the scope, because there kept being too many interesting options to explore, given the complexity of the healthcare system. Even though it took a while to find the right path, I discovered a large gap in the literature, where I as a sustainable design engineer had an opportunity to create knowledge about design, and more specifically about socially sustainable healthcare.

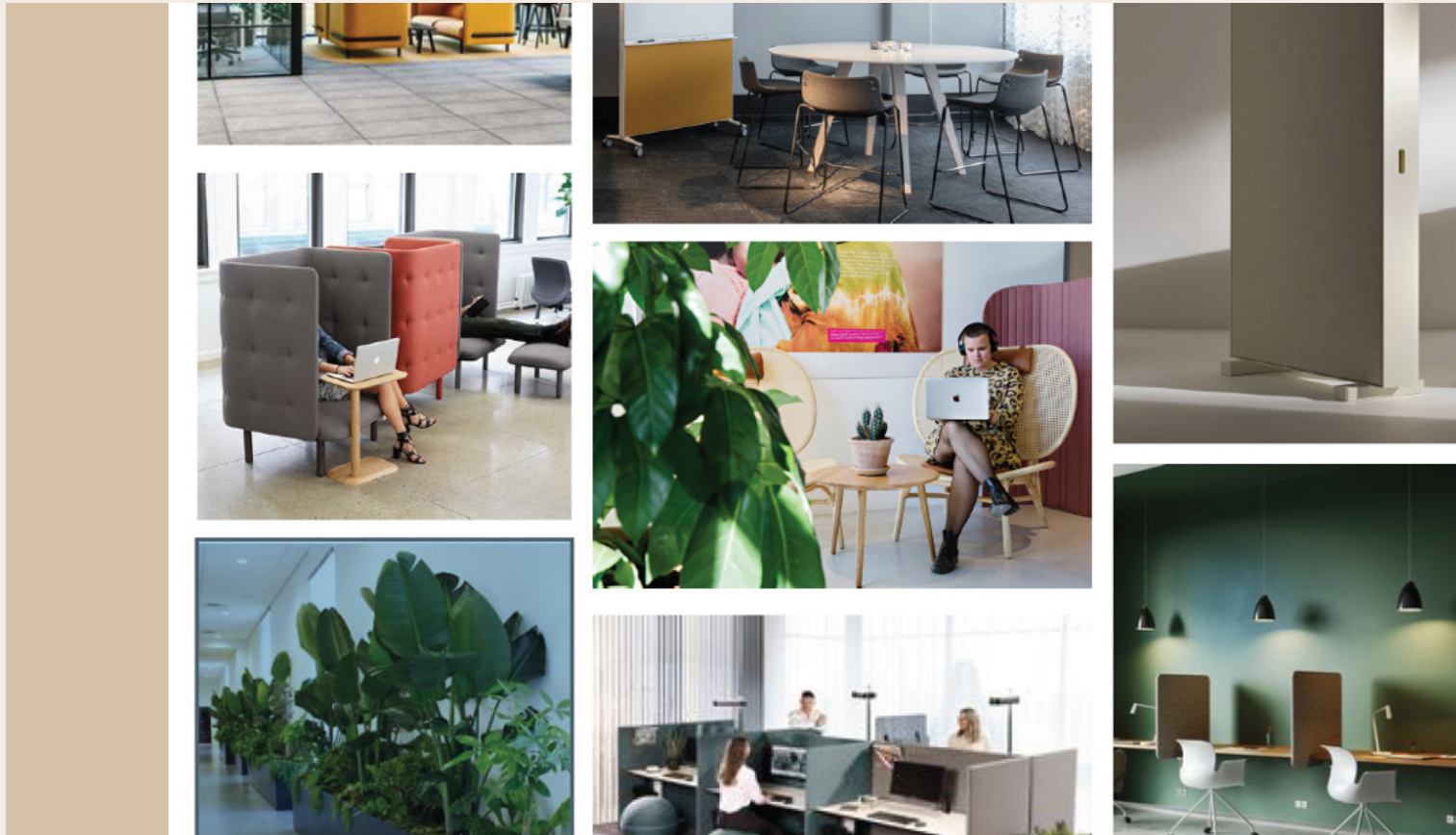
The concept of SSH could in some ways be compared to Maslow's hierarchy of needs (McLeod, 2022). If we look at the individual levels of Maslow's pyramid, we can see the four essentials are represented in the 4 upper levels of needs. The hierarchy is used within psychology and the physical needs of a human, is then comprised to basics needs, that I have excluded in the SSH concept, because they go beyond what the healthcare system is focused on. The contrast between Maslow's pyramid and my concept, is that in the hierarchical needs, you need to satisfy on level in order to attend needs higher



up. But in the SSH concept, the essentials must be viewed as interrelated and not as levels of need.

If I could do the project over again and narrow down the scope earlier. I would have spent just as much time trying to define social sustainability within healthcare, based on the lack of research in the field and pending gaps in the literature. But I would have spent a significant amount of time interviewing and testing the concept together with those who would be the key actors and help mobilise the concept of socially sustainable healthcare.

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