Designing Better Care

Service design as a means for utilising the patient perspective for innovation in Norwegian healthcare

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Abstract

In the recent national plans for healthcare, the concept of the patient as an equal partner is gaining traction. The principal idea is that empowering the patient will lead to more effective and accurate services, with increased quality. The patient is viewed as a promising source for the type of innovation that is needed to re-organise the system. One of the greatest challenges of empowering the patients is shifting the culture and practices so that the services are organised according to the patient's perspective. Service design, and its attentiveness to users, is gaining momentum as a preferred strategy in this shift.

This thesis will investigate and compare three different projects in the field of medical specialised care that have included service design as a means for user involvement in their innovation efforts. The interest in the topic is twofold. Firstly it examines the process of service design in the healthcare context. Secondly, it will identify how design affects the utilisation of the new patient role, and how this again affects hospitals' service innovation.

This thesis takes a process perspective as it draws upon Andrew van de Vens conceptual framework for the problems of managing the innovation process. This analytical stance allows for the identification of the factors the innovation process and the implementation of innovations. The process perspective means exploring the black box of the design driven innovation process and what happens between the input of design and the implementation of new solutions, whether it is decreasing waiting time for diagnosis, making internal improvement more accessible, or raising the safety and quality of the ambulance service for psychiatric patients.

Preface

The choice of theme for this thesis was based on a personal interest in design and the aspiration to study something of societal relevance. I found a link between the two in a film produced by The Norwegian Centre for Design and Architecture (DOGA. The opening scene in the film shows a citation by Swiss psychiatrist Paul Tournier stating that "Not knowing is the greatest of all pain" (my translation), accompanied by solemn piano music. The introduction sets the stage for an emotional experience. And the film is powerful. It is difficult to disagree with its message of helping breast cancer patients by giving them a voice, helping them navigate the authoritarian hospital system and decreasing waiting time for diagnosis by a staggering 90 per cent. I wanted to explore the emerging field of service design in public sector by examining this project as a case study: to peek behind the curtain of its success and see what sort of lessons could be learned to aid others facing the same conundrums.

I wish to thank my supervisor Professor Taran Mari Thune for all your time, wisdom and insight. I would have been lost without you. I also owe the theme of this thesis to you as it was in one of your classes that the "If the patient could choose project" was first brought to my attention. For this I am grateful.

Furthermore, I would like to extend my gratitude to all the informants for welcoming me into their workplaces, making time in their busy schedules and sharing their experiences and perspectives with me.

My husband, Jonas, has luckily shared my valuation of education and the belief in finding ones path in life, however long or windy the road may be. Your never-ending enthusiasm and support for my studies and projects mean the world to me and I could not have finished this thesis without you.

And finally, my two little girls Esther and Franka, thank you for showing me that there is more to life than writing the perfect master thesis.

The reader is encouraged to watch the DOGA film about the project “If the patients could decide” upon reading this thesis.
Available from: https://vimeo.com/95443510

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Abbreviations

AMK	Emergency Operators
BDS	Breast Diagnostic Centre at OUS
DIP	Design Driven Innovation Program
DOGA	Centre for Norwegian Design and Architecture
GP	General Practitioner/ Family Doctor
HOD	Ministry of Health and Care Services
HSØ	Helse Sør-Øst
KMD	Ministry of Local Government and Modernisation
MIRP	Minnesota Innovation Research Program
OUS	Oslo University Hospital
PD	Project Director
PM	Project Manager
SIV	Sykehuset i Vestfold HF
SØ	Sykehuset Østfold HF

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1 Introduction

"Service design is innovation in practice"

- Former Minister of Local Government and Modernisation Jan Tore Sanner

This chapter provides a brief overview of the organisation of the Norwegian healthcare system, the types of challenges it is facing and what role innovation is seen to have in future of healthcare.

The Norwegian healthcare systems main purpose is to provide the population with access to equal and free high quality healthcare. In Norway, healthcare is publicly funded and owned by the state. The state and the municipalities share the responsibility, as the municipalities govern primary and long-term care and the state manages specialist and psychiatric care. Both specialist and primary healthcare services are organised by geography, dividing the country's population into four regional health organisations. Healthcare stands for a substantial part of the public sector expenses in Norway; in 2017 the average cost of healthcare was NOK 60 000 per citizen (Statistics Norway, 2018).

As in most countries, the public healthcare system in Norway is under increasing pressure. The composition of the population is changing and the number of elderly is rising, resulting in a growing need for health and care services. The clinical picture is also changing, with a higher rate of chronic and complex diseases. This requires better interaction and cooperation within and between municipal health and care services and specialist healthcare services. In addition to the social and demographic changes, citizens have higher demands and expectations for public services and its delivery. The average citizen today requires more from public services in terms of accessibility and influence than was found a generation ago. These required improvements include both cost reductions, increasing the quality of care, and patient satisfaction. Healthcare professionals are

faced with a demand for win-win solutions that are cost- and medically more efficient, while at the same time providing increased patient satisfaction (Cunningham 2005, 19). The Government and responsible state agencies may pursue several different strategies in designing policy to help reach these goals, one of which is to empower the patients.

1.1.1 Empowering the patient

In Norway, the patient's involvement in his or her own care is protected and regulated through national laws on health and care services. These may take the form of interest groups as senior councils, youth councils etc. At the Oslo University Hospital (OUS) for example, the Patient Councils role and mandate is to advice the hospital administration on matters concerning patients and their families. In addition they state that their function is to ensure equal care for all patients and to work for more patient involvement on all levels of the specialised care system (OUS, 2018). The hospitals strategy for user involvement, dated 2012, clearly states that (user) involvement is both a strategy and an agent for achieving high quality care (OUS, 2018). However, Bate and Roberts argue that the longevity of the user or patient involvement does not make up for its lack in vitality and urgency (Bate and Robert 2006, 307). They point to a discrepancy between the rhetoric of involving users and the practice of actually organising services around user needs. Most healthcare is still largely organised around the staff rather than the patients (Bate and Robert 2006, 307) The Ministry for Health and Care addresses this point in its health plan when it states that there is probably not a single hospital in the world that does not have patient involvement as a vision, but actually organising the services around the patients' needs and desires are still a long way to come (Ministry of Health and care Services, 2015, 56)

On general terms, patient empowerment is both a matter of including the patient and holding the patient accountable for managing his or her own health. The latter

is emphasised through governmental campaigns and policies such as getting people to stop smoking or exercising more (Cunningham 2005, 21). Inclusion, by granting the patient more access and influence, entails a re-organisation of the healthcare system as suggested by Bate and Roberts (Bate and Robert 2006, 307). According to the Ministry of Health and Care Services, this type of shift in stance has the potential to be a driving force in the future of the services:

"Building the patients health service means that the health services must change their culture, attitudes, organisation and management. The Governments opinion is that the mobilisation of patients and their families as agents for change will be the most important driving force in renewal and improvement in health services. This will contribute to a better health service, not only for the users, but also for the staff and providers of the services." (Ministry of Health and Care Services, 2015, 10)

The inclusion of patients is directly linked to the development of effective and better healthcare system. This provides a valuable connection to the challenges the system is facing, especially in terms of the higher demands of the end users. By allowing them to take part in the development and provision of their own care, the government plans to build a more robust and flexible healthcare services.

1.1.2 National policies for innovation

The Ministry of Health and Care services (In Norwegian Helse- og Omsorgsdepartementet or HOD) governs the Norwegian healthcare system and is responsible for forming and executing the policies that shape public healthcare. This includes innovation efforts in the sector, both on the municipal and state level. In the Government plan for health and care services 2016- 2019, HOD states that innovation is an important vehicle in developing the services and ensuring that appropriate research is put to good use (The Ministry of Health and Care Services, 2015, 125).

The Directorate of Health is a subordinate executive agency and professional authority whose mandate includes improvement, regulative and implementing activities. In a recent report on innovation in healthcare, the directorate makes recommendation for what types of activities are regarded to be beneficiary for meeting the challenges the services are facing. In the introduction the report states that:

"The goal for a future national innovation system is "to create new solutions when facing the health- and care challenges of the future, and more effective and user oriented health- and care services. The Directorate of Health recommends that this is achieved by increasing the innovative ability and innovation activities in the health and care service." (Directorate of Health, 2018, 3)

In most public policy documents such as the National health plan, innovation is described as a means and vehicle for the relevant development of the services. Innovation is often presented in association to research and as a means of realising the practical use of research. Much emphasis is placed on the innovation of medical products and technologies, and establishing strong links between healthcare and commerce (Ministry of Health and Care Services, 2015, 34). The principal idea is that the commercialisation of research will increase the quality of the treatment, improve the patient safety and the cooperation practices. This strategy is operationalized through HelseOmsorg21 - the Norwegian research Council's (NRC) strategy for research and innovation for the healthcare sector.

Aside from more medically or commercially directed innovations, user involvement is described as a focal area for innovative efforts. The involvement of users may include both healthcare providers and the patients as end users. The health plan states that an important means to secure that the services are fit to meet future challenges is to capitalise on the competence of those who work in the sector (Ministry of Health and Care Services, 2015, 35). HelseOmsorg21 state *"User*

involvement and user orientation in the research and innovation process is about allowing those who have the most knowledge of the needs to set the agenda (Norwegian Research Council, 2014,34). Following this idea, the inclusion of users will improve both the quality and relevance of the services. According to the NRC the strategies for, and actual execution of user involvement is lacking. There is an explicit request for measures that will ensure that user involvement becomes an integral part of all research and innovation processes in the sector.

Innovation of services is to a larger extent than those of products or medicines, associated with user involvement. In addition to HelseOmsorg21, the NRC is also responsible for the HELSEVEL program, funding research on services and service innovation in the health sector. The program plans for HELSEVEL notes that there is a general trend towards strengthening the users role and influence in the development of services, and suggests that the user needs and the service needs should essentially be regarded as the same thing. The program also notes that the use of service design and adhering methods to analyse and develop patient- and user journeys has been gaining traction over recent years (Norwegian Research Council, 2017, 10). In the care plans and other authority documents service design is generally discussed in connection to including patients and as a tool for improving and simplifying:

"Service design is a new tool for improving and simplifying health services. The method combines process understanding and visualisation. The designers visualise the current situation. This creates a shared understanding of what the issues are and how they can be resolved among the stakeholders" (Ministry of Health and Care Services, 2015, 125).

The motivation for including service design in the healthcare services is that it can function as a useful input for innovation by being a strategy for user involvement and patient empowerment. The Government has several programs directed towards stimulating the public sector to use design. The most established is the Design driven Innovation Program (DIP) at the Centre for Norwegian Design and

Architecture (DOGA). This and other programs will be presented in connection with the case studies in chapter 5.

In summary, the Norwegian healthcare system is challenged with a changing, aging and more demanding population in an unchanging climate of austerity. In order to address these challenges the authorities are recommending that the healthcare sector engage in further and more user and patient directed innovation activities. One strategy to ensure user integration and satisfaction is through the application of service design. Design is seen to represent the missing link between the current governance paradigms and the emerging more adaptive and user oriented one. In the governments health plan for 2015 – 19 the term service design is described as a strategy to ensure patient and user satisfactory, and as a way to simplify and make services more efficient.

1.1.3 Research questions

My interest in this thesis is twofold. First, I will examine the process of service design in the healthcare context. Second, I will identify how design affects the utilisation of the new patient role, and how this again affects hospitals service innovation efforts. The focus of the thesis suggests the appropriateness of applying a process perspective when answering the questions what type of practice design involves in this context. Question 1 addresses this by exploring the characteristics of the design process:

1. *Characterising design practice:* What does the application of design entail? Why and how are these projects commissioned? And how does the process unfold?

The motivation to engage with design in the context of service innovation is that it will trigger ideas or action in some way. Question 2 addresses in what capacity design is able to be a catalyst for change. Design is strongly associated with patient

and user involvement; consequently this question also addresses how the patient perspective is utilised by design involvement:

2. *Design as change agent*: What types of problems does design tools address, and how do these tools affect the innovation process? How does the application of design tools affect the ability to capitalise on the patient perspective?

Methodologically, this thesis takes the form of a comparative case study as I investigate and compare three different cases of projects in the medical specialised care that engage with service design.

1.1.4 Structure of the thesis

This thesis consists of seven chapters, this introduction constituting its first. Chapter 2 provides a review of the theoretical approaches to the field of innovation and more specifically innovation in public services and health. The chapter also includes a description of the field of service design and its applicability in the context of healthcare innovation. The literature review chapter provides a base for the analytical approach in the thesis, which is described in chapter 3. Here I will present an overview of the process approach to innovation studies. Key concepts and analytical tools from this field will then be laid out and linked to the aims of this thesis, particularly van de Vens (1986, 2008) concept of managing the innovation process. The chapter concludes by demonstrating how a process approach is a well-suited approach for the purpose of this study. Chapter 4 is the methodology chapter where I will describe the choice of methods and how data collection was carried out and data analysed. Chapter 5 provides a description of the empirical data. Together with chapter 6, the analysis, this will constitute the main part of this thesis. Chapters 5 addresses the research questions in a descriptive manner and chapter six will elaborate on and discuss the central themes taken from chapter five.

Chapter 7 concludes by a brief discussion on some of the implications suggested by the central themes presented in this thesis.

2 *Innovation in services and the use of design as tool for innovation*

2.1.1 Introduction

The growing interest in innovation found in the last quarter of the twentieth century, has provided a vast and heterogeneous literature and field of research and study. The literature on innovation is multidisciplinary and complex, both in terms of the premise of the studies and the area of research. Most early innovation research tended to favour the private sector and development of products. This is changing however, as more and more researchers turn towards innovations in services and the public sector. This chapter will present the central themes on the research in services in general and in public services in particular. The chapter concludes with a brief review of the concept "service design".

2.1.2 Innovation in services

The topic of service innovation has received increasing interest both from researchers and from policymakers. The reason for this can be explained both the sheer impact service sector has on the economy, and also in the way some services play integral parts in the innovation process as an agent for transfer and innovation support (Miles 2005, 433)

A main feature of the service sector is its diversity: in terms of typology, its clients or users and how it is owned and organised. The field of services ranges over a vast landscape, crossing sectors covering a wide range of activities and various technologies. As Miles (2005) points out all this diversity makes it difficult to operate with generalisations of what services are, and attempts to do so must always be followed by exemptions (Miles 2005, 435). However, there is some common ground. One shared feature is found in what a service is not - a point

frequently made by comparing it to the manufacturing industry. The provision of a service is distinctly different from the one of a product in many ways. First, a service is less tangible than a product, in turn making them harder to store, transport and export than manufactured products. Second, services are interactive and dynamic, as they often exist in the interaction between provider and user. This implies a high level of contact between supplier and client in the design, production and consumption of the service. Innovations in service tend to focus on this interactivity thus relying more on social and cultural contexts than what is mostly found in the manufacturing industries.

Djellal, Gallouj and Miles (2013) outline four different theoretical approaches to service innovation: the assimilation approach, the demarcation approach, the inversion approach and the integration approach. The common feature of these four approaches is to nuance the emphasis on manufacturing found in the established field of innovation studies (Djellal, Gallouj, and Miles 2013, 99). The assimilation approach considers innovation in services as largely the same ting as innovation in manufacturing. In this view a service is simply an intangible goods and innovation is to a large extent focused on interaction with technological systems. Furthermore the assimilation approach tends to focus on how technologies from the manufacturing industries are adapted by service sectors, hence making it a subordination perspective (Djellal, Gallouj, and Miles 2013, 99). In contrast to the assimilation perspectives, the demarcation approach focuses on what is specific for service innovation rather than how it assimilates product innovation. The change of focus leads among other things to the identification of innovation where the assimilation approach would find none. The premise is that innovation in services is sometimes a matter of spotting the animal in the foliage, there are forms of innovation that are overlooked or hidden, and in order to uncover them one needs a new vantage point. This perspective emphasises the many different forms innovation can take and argues that the distinctive nature of service organisations also affects its innovation process (Djellal, Gallouj, and Miles

2013, 106). The inversion perspective is the third approach and marks a clear break with the assimilist bias from the manufacturing sectors, nor is it occupied with pointing to the differences between services and manufacturing. This perspective sees innovation in services as a dominant force in driving the innovation process and potentially spanning over to other sectors (Djellal, Gallouj, and Miles 2013, 110) The last theoretical approach to analysing service innovation as outlined by Djellal et al (2013) is the integration perspective. Here the objective is to design a method that encompasses all the dynamics of innovation in both goods and services. This framework implies a blurring of the lines traditionally drawn between manufacturing and service and private and public. The term "servisation" is used when explaining the convergence between goods and services in the innovation literature(Djellal, Gallouj, and Miles 2013, 110).

Djellal, Gallouj and Miles (2013) also call for the need to make what they term a double differentiation: not only a distinction from the manufacturing sectors but also a distinction between service innovation in the private market and public sectors. In the innovation literature the general opinion is that competition is the main incentive to innovate. This point does not correspond very well with the public sector whose organisational traits are largely not market-driven and non-competitive. When there is no competition to drive innovation, then why does it occur? In this manner public sector is different and this effects innovation in ways that both hinders and stimulates.

2.1.3 Innovation in public service

Innovation in services was for a long time a neglected part of innovation research, and the same can be said for innovation in public service. The bias towards products and private sector or "context-blindness" (Hartley 2013) has important implications for both the study of innovation and for policy making. Hartley argues that there is a common view that innovation in the private sector is better than innovation in public service, and that public sector will benefit from adapting

strategies and practices from the private sector (Hartley 2013, 44). According to Hartley, establishing the private sector as a benchmark for all innovation is problematic, as divergence will be interpreted as deficiencies and foster needs to incorporate yet more strategies from private sector. The differences between private and public sector is also an issue that engages most researchers dealing with service innovation.

Most public sectors are usually comprised of organisations that are owned and operated by the state and exist to provide for its citizens. Public sector includes, but is not limited to, public goods and governmental services such as police, infrastructure, water supplies, electricity, telecommunications, health and care services and education.

Djellal et al point to the fact that public services are often said to be monopolies that face little pressure to compete. Political influence and lack of resources makes public services less liable to invest in risky innovation projects. The consumers are also found to be less demanding, as alternatives may not actually exist, and what pressure that may be found is more likely to come from the rigid bureaucracy around them. (Djellal, Gallouj, and Miles 2013, 98, 99) This in sum makes for a very different context and environment for innovation, and for understanding and assessing what innovation in the public sector is.

Halvorsen et al suggest that the public sectors closeness to its users and their needs exposes malfunctions or inability to deliver services in a satisfactory way. The inability of a public institution to provide expected services can lead to frustration both in users and providers. This type of frustration can sometimes result in media outcries and external pressure on the leaders of the institution to implement reform. Frustration can also spur innovation in the institutions' employees, as many public servants will be ideologically inclined to act to make things better (Halvorsen et al. 2005, 8).

According to Halvorsen et al (2005) defining innovation in public service implicates a broad interpretation of the term. Here, innovation is defined as "changes in behaviour" (Halvorsen et al. 2005, 2). A similar approach can be found in Hartley (2013) where innovation in public service is defined as "a change in the relationship between service providers and their users" (Hartley 2005, 27). Innovation may further include reinvention or adoption to another context. Both definitions, while very broad, emphasise the role of practice or a change. Innovation in not just a new idea but also a new practice, and an understanding of this is crucial in working with innovation in public services.

Hartley distinguishes between the following innovations in public services (Hartley 2005, 28):

- Product innovations
- Service innovation: new ways in which services are provided to its users
- Process innovations: new ways in which organisational processes are designed
- Position innovation: new contexts or users; strategic innovation new goals or purposes of the organisation
- Governance innovation: new forms of citizen engagement, and democratic institutions;
- Rhetorical innovation: new language and new concepts

Any innovation may have the characteristics of more than one type, as many innovations in public service often will include innovations in both service and process. A much similar categorisation is found in Halvorsen et al (2005), while some of the labels differ, their content overlap. In addition to those listed by Hartley, Halvorsen introduces: Conceptual innovation (a change in the outlook of actors, such changes are accompanied by the use of new concepts and radical change of rationality (meaning that the world view or the mental matrix of the

employees of an organisation is shifting) as further types or categories of public service innovation (Halvorsen et al. 2005, 5)

Osborne and Brown stress the need to differentiate between service development and service innovation. The conflation of these, both in research and policy, they argue, is a major flaw and has negative implications for innovation in public service (Osborne and Brown 2013, 3). They warn against the tendency to treat all innovations as a normative good. Treating innovation in this manner entails that innovation is a priori "a good thing" because the overall process of innovation is "a good thing". However, not all innovations are positive simply by being innovative. It is also worthwhile noting the distinction between innovation and improvement on the managerial level. Supporting staff in improving or refining existing skills is a different undertaking that supporting them in developing entirely new skills (Osborne and Brown 2013, 3,4).

2.1.4 Innovation in healthcare

Innovations in service are an integral part of the hospitals' operation, albeit less visible than advances in technology or drugs that are usually associated with innovations in health and medicine. Greenhalgh defines innovation in health services as:

"New ways of organizing and delivering health services which aim to improve such things as the accessibility of care, the experience of patients and staff, and the efficiency (and hence) cost of services." (Greenhalgh et al. 2004, 540)

In a service perspective, healthcare is special. It is a service that no one really wants, but everybody will eventually need. It is a service of high skill and high cost, and with very little user understanding of that cost (Berry and Bendapudi 2007). However, many efforts are made to control those costs that for most developed

countries make for a vast per cent of public expenditure. As noted in the introduction chapter, innovation is increasingly being viewed as an important strategy in managing costs without decreasing the quality of care.

Innovation is a somewhat ambiguous term for those working in public service. For healthcare professionals it often bares resemblance to organisational changes such as downsizing or cost cutting. Innovation is in this context seen as a way of adopting top-down requirements or meeting targets. Cunningham shows how the term innovation often is not used and is replaced by the more generic concepts of "modernisation" or "change". The process of innovation may also be overlooked, or seen only in relation to the development or implementation of new technology. Service innovations in healthcare tend to be both intangible and incremental, thus effecting how and what healthcare professional perceive as innovation work, and how this work is valuated. Frequently innovation will be described as "problem solving" adaptation and categorised as a matter of "good practice" (Osborne and Brown 2013, 482)

According to Barlow (2013) healthcare services do have some special attributes. First, innovations in healthcare is unlike other industries where innovation tends to drive down the cost of production. The opposite is the case for healthcare as new developments increases demand by allowing for the identification of patients or treatments, that far exceeds what what is practically achievable. Secondly, innovations in helathcare is difficult due to the complexity of the services. These include numerous interdependent components, the non-linear and often counterintuitive behaviour it displays, and its ability to respond to changes. Thirdly, there are major challenges in terms of the diffusion of innovations and best practice across the organisation. Due to insufficient funding, innovative pilot projects often struggle to move past the preliminary stages and are not fully realised (Barlow 2013, 528).

2.1.5 Service Design

As described in the introduction, service design is gaining momentum as an appropriate strategy for innovation in the discourse of public policy documents. This section will define what service design is, describe its methods and demonstrate its applicability in the context of healthcare. Design has traditionally been viewed as an aesthetic exercise aimed at making products more desirable - something that concerns beautiful spaces and things. This narrow, and perhaps dated, understanding of design and its purpose is now changing rapidly. Bason (2017) emphasises how the new context is changing the meaning and content of design:

"It has spread from a focus on forms and objects to focus as well on services and systems; its practice has changed as ideas about end-user and stakeholder involvement have gained currency; and its impacts have broadened with the rise of new ideas about the contributions of design to the theory and practice of management. At a deeper level, design is changing because the context for design is changing. Design, as a discipline, is being redefined by technological and social megatrends, which have significance for how organizations are run, products and services are shaped, and how value is created. As part of this shift in context, design is finding its way into the public sector." (Bason 2017, 34)

The definition and conceptualisation of design I will apply in this thesis is one that focuses on the human process behind the creation of a product or service. Design is thus defined here as a process tool that emphasises the understanding of users and their context.

In this thesis the term design is used synonymously with service design. Service design is a field within design that emphasises the activity of planning and organising people, infrastructure, communication and the aesthetic experience of a service in order to improve its quality and the interaction between the service provider and its customers (Polaine, Løvlie, and Reason 2013). Services differ from

products, as they are less tangible and less direct. Healthcare is for instance not a product you judge by holding it in your hands:

"People don't "use" a healthcare professional or a lawyer, and they don't consume a train journey or a stay at a hotel. Instead, people enter into a relationship with professionals and service providers, and their interactions are an act of co-producing the service experience". (Polaine, Løvlie, and Reason 2013, 36)

The service actually comes into existence when it is being used; this in turn means that the user is co-or re-producing the service. This calls for insights into who these users are, the world they inhabit and their needs. These are the concerns of the service designer. In addition to the more functional demands of a service, the designer will also be very attentive to the experience of using the service. Service design can therefore be described as a matter of managing the relationship between people's expectations to a service, and the experience of actually using it. Experience is both a matter of functionality in terms of a service performance, and the more emotional aspects.

According to Stickdorn and Schneider (2011) there are five main principles to service design: Service design in user centred - services should always be experienced through the costumer or users eyes; Co-creation - all stakeholders should be included in the service design process; Sequencing - the visualisation of the service as a series of interrelated actions; Evidencing - physical artefacts should be employed to visualise the intangibility of services; Holistic - the consideration of the entire environment of a service (Stickdorn et al. 2011, 34)

The mode of work in a service design project will generally differ from traditional ways of conducting project work in the public sector. The workshop is an important activity of the design process and co- creation is the fundamental feature. In the workshop the designers' aim is to facilitate a process where the

project team themselves searches for and finds answers to their challenges. In doing so they have a wide variety of tools at their disposal, ranging from role-play, sketching and more traditional filling out forms.

Tidd and Bessant (2005) point to the utility of design in terms of "using tools and skills to articulate and create meaning in products" (Tidd, Bessant, and Pavitt 2005, 161) Here design is seen as a tool with the potential to harness both marked pulls and technology pushes in enabling radical new concepts that have meaning in people's lives (Tidd, Bessant, and Pavitt 2005, 161) The notion of creating meaning in both products and services is seen as the key feature of design. This intrinsic meaning is related to the ability to design an experience around the product or service. This ability can undoubtedly give a competitive advantage. The shift in focus from meeting needs to creating experience is sometimes referred to as experience innovation and the experience economy (Tidd, Bessant, and Pavitt 2005, 161). While Tidd and Bessant focus on products and competitive advantage, I argue that the point translated to public sector and service innovation as well. Marked pulls can be exchanged with policy pulls or simply dissatisfaction with the performance and quality of a service calling for changes to be made.

2.1.6 Design Attitude

The increasing interest in design and design thinking has resulted in a variety of publications highlighting the links between design and organisational change and innovation (Michlewski 2008, 373). Despite the increased interest in design as an alternative mode production and the call for managers to adopt a certain "design attitude", there is little research on what this attitude consists of.

Design attitudes can be defined as "expectations and orientations one brings to a design project" (Michlewski 2008, 374) In addition Boland and Collopy, who first coined the term, make the point that:

"A design attitude views every project as an opportunity for invention that includes a questioning of basic assumptions and a resolve to leave the world a better place than we found it" (Collopy and Boland 2004, 9)

In his doctoral research Michlewski carried out a emperical study of design attidues by interviewing designers in leading firms in the US and UK. Based on Boland and Callopys term, Michlewski proposed five characteristic dimensions of design attitude. These have later been tested statiscically through a quastionaire based survey given to a sample of 235 designer and non-designers. As a result Michlewski was able to determine that there are statistical differences in attitudal dimensions between designers and non-designers (Bason 2017, 55). The design attitudes based on Michlewski's most recent work (2015) presented in Bason (2017) are as follows:

Embracing uncertainty and ambiguity: The willingness to participate in a process that is not pre-determined and the outcomes are unknown and uncertain. Requires openness to risk and loss of control. Embracing ambiguity means being able to follow an idea and see where it leads.

Engaging deep empathy: Designers intuitively tune in to peoples needs and how they as users relate to service or product. Deep empathy implies the ability to abandon previous mental models

Embracing the power of the five senses: related to, but extending, making things visible. An important dimension to design is drawing on all five senses to assess the efficiency of the solutions that are being developed. Designers recognise the significance in a whole range of sensory stimuli and will engage consciously with various senses in their work.

Playfully bringing to life: designers utilise the power of humour, playfulness and bringing ideas to life, as the heart of the design practice embraces experimentation and exploration. This idea is associated with designers' affinity for creating things and bringing ideas into life, and relates to a desire to create change and value.

Creating new meaning from complexity: by utilising empathy, designers are able to reconcile multiple and often-contradictory points of view into something valuable that works. The ability entails viewing a situation from a wide variety of perspectives and drawing upon these in the creation of a space where problems can be explored. According to Michlewski this is indicative of managing an analytical- synthetical loop.

2.1.7 Chapter summary

Innovation in the public sector differs from innovation in the private sector both in terms of definition and motivations. Exploring innovation in public sector implies taking a broad stance in terms of what innovation is, and simultaneously removing oneself from assumptions derived from studies of innovations in the private sector. Innovation in public services focuses on the relationship between the provider and the client or consumer to a much larger extent. Frustrations and difficulties in this relationship is also what is thought to motivate innovations, as public employees tend to work for the greater good and will be inclined to make things better.

In a service perspective, healthcare organisations have different properties than other organisations. This is mostly due to the fact that healthcare organisations are usually large, and the complexity of the services and the policies that shape them. By those working in health, innovation is often viewed in connection to reorganisations and reform and many innovative activities are not regarded as such but simply as best practice or day to day development.
The proximity healthcare professionals have to their users provide a fertile ground

for identifying and acting on problems, as many public employees are motivated by doing better. The notion that it is the front-line staff that knows "where it huts", and therefor should be included in the development or design of the service is key to service design approaches.

The focus on the users and understanding their needs and experiences is one of the main features of service design, and the reason why it is gaining momentum as strategy for user inclusion in healthcare innovation. The increasing interest in the links between design and organisational change and innovation in the public sector has created the need for a better understanding of the consequences of applying the design approach in these contexts. Michlewski's (2008) conceptual framework of "design attitudes" demonstrates that there are differences in the way designer and non- designers think. The hospital is per definition an organisation that favours pre-knowledge and relies on evidence when making decisions. Designs ability to be an effective process tool relies on the organisations ability to accept new ideas and learn from new sources of information. The contrasting attitudes represented in the design process require a type of management that is able to identify and act upon these differences. Issues regarding the management of the innovation process will be accounted for in the following chapter, which outlines the analytical framework for this thesis.

3 Analysing innovation processes

3.1.1 Perspectives on the innovation process

The theoretical approaches reviewed so far have concentrated on defining what innovations in services include and how it should be analysed. The main part of the review focused on innovations in the public sector, and healthcare in specific, and how these differ from innovations in the private sector, and why this is a matter of interest. At this point I find it useful to turn to theories that address the innovation processes in a larger extent. The aim of this thesis is to peek inside the black box of the design driven innovation process on a micro level. Applying a process perspective is well suited for this purpose as it allows for an investigation of the *how's* and *why's* of the innovation process.

In the choice of analytical approach, I make the assumption that design methodology and tools poses a challenge to the general practice of work in the health sector. I find Andrew van de Ven's insights on the problems of managing the innovation process useful as it allows me to assess the way the service innovation process is managed in this context. The application of design is a factor that in itself affects the context of the innovation process in the cases I examine. Design, and the presence of the designers thus becomes a factor that needs to be dealt with some way. Michlewskies work on the design attitudes demonstrates this.

Analytically this thesis takes a process approach. Service design is a process tool; consequently its effect on the service innovation process is of great interest to me. The analytical framework builds on the seminal work by organisational theorist Andrew van de Ven. In his extensively cited and highly influential scientific essay "Central Problems in the Management of Innovation" (1986) he provides conceptual framework on the management of innovation processes. Van de Vens ideas and concepts have proven to stand against the grain of time, and still offer

valuable insights on product and service innovation processes in the private as well as the public sector.

More recent, the book "The Innovation Journey" (2008) provides a synthesis of a trilogy of books from the Minnesota Innovation Research Program (MIRP). MIRP began in 1983 with the objective of developing a general process theory for innovation studies, and an understanding of how changes in innovation ideas, outcomes, people, transactions and context evolve over time. Through extensive, longitudinal qualitative studies of innovation processes the authors were able to provide researchers with a road map for analysing the process of innovation.

This thesis relies on insights form both the "Central problems in the Management of Innovation" and "the Innovation Journey" in exploring the research questions presented in the introduction. The next section will describe the analytical framework and tools, and demonstrate their suitability for the purpose of this thesis.

3.1.2 Managing the innovation process

Numerous books and papers have been written on the innovation process, mostly focusing on what drives or obstructs innovation process and the outcomes of innovation. The basis for studying innovation as a process lies in the distinction between invention and innovation emphasised by Fagerberg (Fagerberg, Mowery, and Nelson 2005) Good ideas and inventions do not possess much value until they are acted upon and transformed into products or services that address real world issues. Understanding why some ideas reach the point of impact while others do not motivates the study innovation as a process and not as an outcome. Innovation is moreover accompanied by an unpredictable and risky process, and contingent on a wide variety of factors such as type of innovation, sector and policies. Van de

Ven's work sets out to address some of these contingencies by exploring a general framework for the management of the innovation process.

Van de Ven defines innovation as "*the development and implementation of new ideas by people who over time engage in transactions with others within an institutional order" (Van de Ven 1986, 2).* The definition suggests four main factors that affect the management of the innovation process: ideas, people, transactions and context over time (Van de Ven 1986, 4). Van de Ven argues that, form a managerial viewpoint, understanding the innovation process is to understand the factors that affect development of innovative events over time.

A lesson to be taken from this definition is that in many cases an innovations ability to be successful exceeds the pure technical capabilities of the innovation itself. In practice this means that even products or services that are considered to be well suited, may still be rejected by its users due to a number of psychological, social, political or contextual factors. This indicates that the successful implementation relies on the ability to properly adapt the idea to fit in the context of use.

The basic problems associated with the factors of ideas, people, transactions and context over time in van the Ven's definition are: *the human problem of managing attention; the process problem of managing ideas into good currency*; *the structural problem of managing part- whole relationships;* and finally *the strategic problem of institutional leadership* (Van de Ven 1986, 4)

As this thesis main objective is to explore how design and the patient perspective functions as input for the innovation process, I will focus on the problems of managing attention and managing ideas in to good currency. Service design is a process tool as it emphasises data collection, idea generation and exploring new concepts or solutions. While there is nothing that suggests that service design is not useful when it comes to implementation, the emphasis of most service design projects is in the "fussy front-end". This corresponds with policy discourse of

service design and its applicability. As noted in the introduction, service design as a tool is described as particularly useful in generating new ideas and drawing on new sources for idea generation. For this reason I determine that the conceptual framework of managing attention and managing ideas into good solutions is the most relevant for the purpose of this thesis.

3.1.3 Managing attention

The problem of managing attention is related to the notion that most people and organisations will act in a way that protects the status quo, rather than paying attention to developing new ideas. The more successful an organisation is, the more difficult it is to trigger peoples' interest and attention for change. Solving the problem of attention therefore means being able to create a culture where innovation may occur.

When facing complexity most people tend to act in ways that have proved useful in the past. The human mind favours making categories, allowing us to generate stereotypical ways of solving problems or responding to given situations. According to van de Ven this type of reaction confuses rationality with rationalisation (Van de Ven 1986, 11). While this may be an effective strategy in many instances, it is also problematic in the sense that it makes people more conservative in the decision making process, creating an atmosphere where people "stick to their guns".

However, increasing dissatisfaction over time is a factor that has the potential to cause people to discard their favoured stereotypies. The assumption is that "*when people reach a threshold of dissatisfaction over existing conditions, they will initiate action to resolve their dissatisfaction" (Van de Ven 1986, 15)*

The problem with this model is that people are amazingly adaptive to their environments, often without knowing that they are adapting at all. According to

cognitive psychologists, individuals who are exposed to a set of stimuli that gradually deteriorate over time will not perceive the gradual changes and unconditionally adapt to the worsening conditions (van de Ven 1986: 15). In practice this means that people fail to notice and act upon opportunities for innovative ideas and instead focusing their attention on adapting to the worsening conditions, or eventually end up managing crises.

This demonstrates the problem of managing how people pay attention to good ideas or identifying sources for good ideas. One strategy available to management is to expose employees to their most demanding customers or users. The notion is that these face to face encounters will provide a direct and personal confrontation with the problems, that increases the action threshold and in turn trigger the development of innovative ideas (Van de Ven 1986, 18).

Different types of learning models also affect the innovation process. Van de Ven turns to Argyris' terms of single- and double-loop learning models as factors that can affect the management of attention in the innovation process. Where single-loop learning represents a more conventional monitoring of activity, double-loop learning involves a change in the criteria's of evaluation. This change implies that the status quo and past practices are questioned and new assumptions about the organisation are raised. This in turn allows for significant changes in the organisation (Van de Ven 1986).

Detecting the error is the first step in learning, followed by correcting the error and maintaining the correction. Single-loop learning will occur in correcting behaviour, while double- loop learning is more aimed at the underlying program or culture, which leads the individuals to act the way they do (Argyris 1991) To illustrate the distinction Argyris uses the example of a thermostat:

"A thermostat that automatically turns on the heat whenever the temperature in a room drops below 68 degrees is a good example of single- loop learning. A thermostat that could ask, "why am I set at 68 degrees?" and then explore whether or not some other temperature might more economically achieve the goal of heating the room would be engaging in double- loop learning" (Argyris 1991, 4)

Argyris (1991) suggests that many professionals tend to be bad at double- loop learning because they have trained themselves out of situations where they experience failure. And because they never fail, they have not learned how to learn from mistakes:

"So whenever their single- loop learning strategies go wrong, they become defensive, screen out criticism, and put the "blame" on anyone and everyone but themselves. In short, their ability to learn shuts down precisely at the moment they need it the most" (Argyris 1991, 4)

Single-loop learning is linked to the type of inertial behaviour described above as it does not challenge or question the criterias of eveluation.
While double loop learning might be benificial in terms of generating innovative ideas by un-learning programatic responces to problems, it can also have negative consequences. When the evaluation crietria is questioned, strategies and leadership may also be challenged. This can lead to change but it can also lead to low trust and defensive behaviour. This requires that the managment of attention not only concerns triggering action but also beeing careful how responses are being channeled (Van de Ven 1986, 20).

I will apply van de Vens concept of the problem of managing attention to analyse and asses whether or not design can contribute to identifying sources for good ideas, and as a means for directing attention towards the patient's expereince of hospital services. The patient parespective can provide a face-to-face encounter with problems similar to the one van de Ven describes as confrontations with

demanding costumers, creating a more extensive understanding of problems that might trigger innovative action.
I will use Argyris' theory of single- and double-loop learning when exporing the design process and wheter or not this is able to affect professionals ability to engage with double-loop learning.

3.1.4 Managing ideas into good currency

The second problem outlined by van de Ven is that of managing good ideas into something that can be implemented and institutionalised, or "managed into good currency" in van de Ven's words (Van de Ven 1986, 6). While good ideas may be an individual effort, developing and implementing good ideas into innovative solutions is a collective achievement. Here, the social and political dynamics of innovation become vital as one relies on the interest and motivation of people to develop the innovation.

Van de Ven references Donald Schön in explaining how ideas are the rallying point where collective action is mustered. Shön states that what typically occasions change is a disruptive event that threatens the social system and creates the need for new ideas and solutions to remedy the crisis (Van de Ven 1986, 7). The ideas ability to rally collective action is indicative of how influential it will become in terms of causing changes. Resources are needed to challenge established structures, and once the idea has secured support from influential stakeholders it may gain momentum and legitimacy in the organisation.

Furthermore, innovation is a matter of appreciation, a process that combines judgements of reality and value. A new appreciation rises when a new idea, problem or opportunity is realised (van de Ven 1986, 9). These judgments of reality are valuated in terms of whose reality is dominant. This suggests the relevance of the source of the idea, as well as the idea itself. New ideas, and especially the ones

who challenge established structures, meet resistance. This calls for a "champion", an entrepreneur within the organisation who support and promote the innovation through available informal channels. Van de Ven states that an idea without a champion "gets nowhere" (Van de Ven 1986, 7)

The process model derived from MIRP has suggests the importance of the gestation phase and the presence of "shocks" that triggers action in the innovation process. The gestation phase refers to what comes before the innovation process. In most of the innovation processes studied by MIRP there was found to be a substantial gestation period where the companies were involved in a variety of activities that somehow set the stage for innovation (Van de Ven, Polley, and Garud 2008, 25). Most activities in the gestation phase were not directly aimed at generating innovation. However, some activities served to identify deteriorating performance, malfunctions or changes in the environmental factors. Other events demonstrated the potential of introducing new technology or practices. The gestation phase confirmed that it is rarely a single action or event that triggers innovation, but rather the complex interplay of several different factors over time.

Where the gestation phase is viewed as setting the stage for innovation, concrete actions made to develop specific innovations appear to be triggered by "shocks" in the system. Shocks can take the form of new leadership, some sort of failure, a budget crisis, new policies etc. Many good and innovative ideas may be developed in the organisation but are not acted upon until a shock appears. Shocks are also important as they allow the champion of an idea to gain momentum and support. The champion rarely controls the resources needed to develop ideas, in this context the shock can be what persuades management and legitimises the idea(Van de Ven, Polley, and Garud 2008, 28, 29).

The problem of managing ideas into good currency is useful in regards to utilising the patient perspective in the service innovation processes I investigate. The

concept of managing attention offers this thesis a way of analysing if, and how design affects the hospitals' ability to realise the patient perspective as a source of good ideas. The concept of managing ideas into good currency can illuminate how design influences the appreciation process and the ability to act upon ideas that may become solutions of real value. Van de Vens attention to factors influencing this process will be discussed through the concept of gestation and shock. Gestation refers to prior activities leading up to the design process, and is thus indicative of identifying what kind of scope design is given in the process. The concept of shock guides the assessment of how design, through offering different and new methods and tools, is able to be the type of shock that can trigger innovation.

4 Methodology

4.1.1 Choice of research method

The choice of research method is largely dependent on what types of questions one wants to find the answers to. For my thesis I wanted to investigate how the concept of design driven innovation has been employed in the public services, and the organisation and management of such a process. Formulating and specifying the research questions and influencing the general direction of the research has been a gradual and iterative process, dependent on findings throughout the research process.

The choice of theme derives questions regarding personal experiences, motivations and valuation. When trying to uncover these types of subjective perceptions, qualitative research methods can be appropriate. Methodologically, this thesis takes the form of a comparative, qualitative case study. Case studies are among the most commonly used research methods in the social sciences. They are suitable in getting an in- depth understanding of a real life phenomenon, and also taking into account the external conditions affecting the phenomenon in question (Yin 2017)

4.1.2 The case study

Case studies can be descriptive, explanatory or exploratory. Thematically case studies have been found to research events, processes or a particular place. The academic motivation to conduct case studies are often found in the provision of detailed analysis of why theoretical conceptions or explanations are relevant or not in the context of the case (Hay 2000, 82)

A case study is in many regards a research design approach rather than a method for data collection. The principal aim of the case study is to make sense of a

phenomenon as it is situated in a specific context, and not the general description of the phenomenon in all conceivable contexts (Hay 2000, 82).

The scope and definition of what the case consists of will vary according to the phenomenon and its real-life context. The context of the case is important as it exercises considerable influence over the phenomenon in question. Understanding the contextual influences will often lead the researcher to study other "things" in relation to the case (people, newspapers, policies etc.) For qualitative case study researchers, the aim is to study one carefully selected community holistically in order to obtain in-depth knowledge of the phenomenon (Hay 2000, 85). Practically, the definition of the cases context is generally a challenge for the researcher due to the complexity of the case and the inclination to include all the contextual conditions. Technically speaking this means that the variables in the study will far exceed the number of data points (usually just one or a limited number of cases) (Yin 2013, 322) First and foremost this is a delineation problem for the researcher, but it also has some implication in terms of validity as the contextual arrangements of a case tend to be dynamic.

Baxter differentiates between different types of case studies, notably between theory testing and theory generating studies, and case studies across time and space (Baxter 2010, 85). The distinction between the two former indicate to which degree theoretical positions are stated prior to entering the field (Baxter 2010, 88). The second dimension includes the most common form of social research, the cross sectional study. This refers to research that is undertaken at one point in time, regardless of how long the period of research is. Longitudinal studies on the other hand require a re-visit where the researcher returns to the field after an absence where no research on the case was done (Baxter 2010, 85) In terms of space, case studies may be concerned with the importance of geography or changing spatial conditions on different cases. These studies tend to take the form of a comparative or parallel case study, which analyses different cases at the same point in time (Baxter 2010, 85). This thesis employs a comparative case study, as the

unit of analysis is three different projects that each are a case of a design driven service innovation process in healthcare. The comparative case study emphasises comparison within and across contexts. This is suitable for this thesis as it is concerned with the introduction of service design methods in healthcare. Healthcare is, as previously noted, a very complex and varied sector. This makes it difficult to speak of one healthcare context. Comparative case studies involve analysing the similarities, differences and patterns of two or more cases that share a common focus or goal. Taking a comparative approach is useful for understanding and explaining how context influences the success of the design driven innovation process and for answering "how" and "why" questions about the processes of an outcome. The comparative case study is methodologically less "bounded" than more traditional types of case studies. The practical implication of this is that the comparative case study takes a process orientation leading to an emergent design of the data collection. The approach favours an iterative and conditional tracing of relevant factors and actors (Bartlett and Vavrus 2017, 8)

A common criticism of case study research is that its findings are not generalizable in the way that those of social surveys are. Generalizability describes the degree to which findings can apply in other cases of the phenomenon in question. External validity and transferability are terms that describe the same concern (Baxter 2010, 94). One way advocates of case studies have responded to the criticism is to point out that case studies are directed towards a different kind of general conclusion than survey research is. Yin argues that case studies are designed to produce theories, aimed at analytical and not empirical or statistical generalizations (Gomm, Hammersley, and Foster 2000, 1)

4.1.3 Unit of analysis and sampling

The cases were deliberately selected to be diverse in terms of themes and hospitals. The cases had ambitions as different as reducing the waiting time for diagnosis of breast cancer, increasing the accessibility of internal improvement tools, and the transportation of psychiatric patients in crisis. The projects were different in goals and content, but also in terms of participants. All projects include cases of multidisciplinary teams, reaching from staff from different departments at the hospital to collaborations between healthcare professionals and police. Moreover, the hospitals that hosted the projects differ in size, geographic location and status (academic and general hospitals) I have made a point of only including hospitals in Health region southeast (Helse Sør-Øst). This choice was made in consideration to both analytical and practical factors. I wanted the hospitals to be subject to similar innovation strategies and policies (although the university hospital has requirements for other innovation activities than the regional hospitals), and as I myself reside in the city of Oslo the data collection would be easier to arrange as the locations where somewhat close to each other.
Following these guidelines I have chosen projects (i. e. cases) based on these inclusion criteria:

(1) The project must take place in the specialised care i.e. hospital environment; (2) The hospitals must be localised in the region of southeast Norway; (3) The project has to be described as an innovation project by the hospital; (4) The project must include service design as a main process tool or source of innovation; (5) The projects are ideally at different stages in the process; (6) The projects include collaboration with different design agencies; (7) Not all programs should be a part of DIP or similar programs

The seven points listed as inclusion criteria help to limit the context of the case and secure that the cases are cases of the same phenomenon. Criteria number 1- 4 and are designed to provide a similarity in context making the identification of

significant variables easier. Criteria 5 – 7 are on the other hand designed to provide the sample with enough variation when identifying the specificities of the phenomenon (design) in the context (hospital). Subsequently three cases were chosen at three different hospitals organised by one common health authority (HSØ). The number of cases is slightly arbitrary; for the purpose of this research it might as well have been four or five. However, increasing the number of cases will increase the complexity of the research substantially. As the scope of the master thesis is somewhat limited I have found that three cases is sufficient while being realistic.

The three cases are all cases of projects that employ design methodology in service innovation process. In this context design is as an input for realising new ideas, and as a means for solving some of the complex challenges the organisations are faced with.

Although the inclusion was purposeful in terms of having clearly defined selection criteria, this was the ideal sampling. I was still reliant on the snow- ball method. I sent out several requests for access to other projects that remained unanswered, and information about alternative cases and who to contact were also derived from interviews. Having a recommendation from someone in the system was at times very useful.

The table below shows all sources of data, the organisations represented, what profile the organisation has and the position of the informant in the organisation.

Table 1 : Data sources for case 1 "If the patients could decide"

Profile	Data sources
Oslo University Hospital (OUS)	3 interviews: 1 project manager and doctor, 1 doctor, 1 senior manager

DOGA	1 interview with senior manager. Several reports on multiple projects
Regional health authority, Southeast, (HSØ)	1 interview with senior manager.
Film about case 1 "if the patients could decide" DOGA	Presents the designers, patients and hospital management at OUS

Table 2: Data sources for case 2 "A little bit better every day"

Østfold regional Hospital (SØ)	1 interview with project manager. Public presentation of project by senior manager. Report on project.
Halogen Design firm	1 interview with senior designer and project manager. Report on project
Ministry of Local Government and modernisation	Seminar on November 7th 2016concluding the "catching time thieves" initiative and subsequent report

Table 3: Data sources for case 3 "Travelling in dignity"

Profile	Data sources
Vestfold Regional Hospital (SIV)	1 interview with project manager. Report on project 1 interview with in-house designer/ organisational consultant
Livework Service design firm	1 interview with designer and project manager

4.1.4 Interviews

In- depth interviews were conducted with key informants in each of the three cases a total of nine interviews. I have defined the key informant as someone who has extensive knowledge and insight of the process in the cases, as such most of the interviewees where project managers or team leaders. All but two interviews took place at the informant's place of work, the last two at a café per the informants wish. The interviews lasted on an average between 60 and 90 minutes, a few close to two hours. The informants had made arrangements so that we were able to speak undisturbed and in private. Three of the interviews took place in the informant's office, whereas in four of the interviews the informant had provided a meeting room or similar. In interviews in all of the cases I experienced that my presence and interest in these projects was welcome and regarded in a positive way. In two of the interviews the informants had asked for the interview questions in advance, a request I granted. All interviews had an informal and positive tone. I was careful to position myself as neutral albeit positive to the theme at hand. I was not there to criticise or elicit what went wrong, making informants at ease at inclined to share their thought and experiences with me.

The interviews were semi- structured. This approach includes an interview guide that is focused on content, and allows the interviewee to focus on what he or she find most relevant. In this way the semi- structured interview is suitable for appropriating experiences and personal views (Hay 2000, 110). This approach to the interview means that the questions were organised around systematic, but flexible themes. The flexibility means that the role of the researcher must be understood more in the lines of a facilitator and indicates the ability to redirect if the conversation moves to far away from the topics of inquiry. This was the case in many of the interviews I conducted. The conversation on the innovation projects with hospital employees seemed to function as door opener to the topic hospital work in general. Many of the descriptions were interesting and I appreciated the confidence in me that allowed this insight to be heard. However, my failing to

redirect the conversation led to a conflict of time allotment and perhaps provided me with less insight on the actual topic. This was mostly an issue in the first one or two interviews as practice made me more alert to this issue and prone to intervening.

Some of the projects included in the cases dates several years back in time. The human memory has its shortcomings and in the cases reaching back in time I experienced that the informants could not recall the answers to my questions. In some of the cases, notably case regarding diagnosis of breast cancer at OUS, there is a strong official narrative of what the projects entailed and what the outcomes where. I suspect that this narrative took the place of informant's actual experiences when their memory betrayed them.

The interviews where recorded on a recording device and transcribed according to theme afterwards. I decided that transcribing word for word was not a good use of time in such a limited project. Instead I made extensive notes based on the codes derived from the research questions that made it easy to go back and make new transcripts if necessary.

4.1.5 Access

Upon starting the data collection I made many assumptions about the difficulty of gaining access to the hospitals. I assumed that the doctors would be far too busy and simply not interested in talking to me. Gladly, I was wrong. Throughout this process I have found that people have been more than happy to speak to me, with a few exceptions of course. Another assumption I made was that gaining access to the designers would be easy; unfortunately this would sometimes be harder than what I expected.

In many of the sessions with my supervisor, I have jokingly referred to what I perceived to be white whales of my research. Much like in the novel by Herman

Melville, a certain level of mystery still surround the data for me, as there are pieces of information that persisted to elude my grasp. Metaphorically speaking, the white wales in my research have left a few gaps, as there are people I have failed to get in contact with or who have declined to participate. In the instances where I have been denied access I have tried to make up for the lack of data by finding other sources like documents, films etc. One of the benefits of conducting research in the public sector is that there is always a paper trail. However, what I am mainly interested in finding out are the sorts of thing that are not usually written down, or at least not made public. Of particular relevance, I regret not being able to speak to the designers at the design firm Designit. They worked alongside the team at the Oslo University Hospital in case 1. I have made many attempts to get an interview with one or both of the two designers who worked on this case, but maternity leave and busy schedules on behalf of the designers made them turn down my request. I was, and am still very interested in getting their point of view on this process and the solutions they came up with. Designit has been rewarded with many distinctions and awards following this project and its success, is still almost five years after completion, widely celebrated. As I will show in the case description and analysis to come, some of the doctors working on the project at the hospital were slightly uncomfortable with this public celebration of success and perhaps felt that the designers were given too much credit. As I have not been able obtain the designer' version, the voices of the doctors sound louder. I have relied on the aforementioned film about the project as a source of information as the designers are featured here, bearing in mind that this is a sort of sunshine depiction of the process and has to be read with some critical distance. The interview with the DIP Director at DOGA was also helpful as he was present in some of the meetings and did not represent the hospitals interest.

A special circumstance affecting the data collection of a more personal character was that I was expecting a child at the time, providing me with a sense of urgency in terms of conducting data collection. Upon on welcoming my daughter to the

world in November 2016 I took a one and a half semester break from university studies. Returning to work on the thesis, I finished the data collection by conducting one last interview in mid January 2017.

The inductive method I employed has some shortcomings as the focus of analysis shifted during the work. As I made appointments and conducted interviews my focus was on the micro level. I wanted to see the process through the eyes of those who where there. As work on the analysis progressed I became evident that having made interviews on different hierarchical levels in the organisation could have provided me with a richer and thicker description of the cases. However, a master thesis needs to be delineated and at some point I felt inclined to make due with what data I had already collected.

4.1.6 Data analysis

One way of making sense of the data is through the coding process. Cope describe the purpose of coding as a way reduce data by distilling it along key themes and as a way to organise the analysis by providing a direction for the exploration of data (Cope 2005, 282).

In my analysis I proceeded to assign codes in a pyramid- like manner. First this involved attaching short statements, which summarised fragments of text that referred to one of the themes from the research questions. Following this was the aggregation phase where I looked for support for the codes in other sources. The idea here is to reduce redundancy and create robust categories. The selection of categories then leads to the chosen theoretical and analytical frameworks.

Statement	Initial code	Category	Analytical theme
"The workshop became a very positive experience. They brought a lot of post it's and such."	Post it's	The workshop	Managing ideas into good currency
"The emperors new clothes"	Trust	Management	Willingness to engage with design attitude

Table 4. Examples of coding process

4.1.7 Reliability and validity

The qualitative researcher is responsible for interpreting and portraying the experiences of others, a task not to be taken lightly. The responsibility means allowing for others to evaluate the research and the work performed. This entails being transparent in methodological choices, the data collection, analytical steps and so on. It also means critically reflecting on the strength and weaknesses of one's own work, and not trying to hide or smooth over insufficiencies. This section will discuss rigour, in terms of reliability and validity of the methodology employed in this thesis and the consequences.

Reliability

Reliability is a term that refers to how successful the researcher has been in minimising errors and biases in the course of the study. In general, reliability is measured on the bases of replication. If another researcher followed every step and copied all aspects of the process, the replicating researcher should ideally be able to make the same conclusion (Yin 2017, 45). In practice this is seldom done, and reliability is viewed as a way of determining the research's trustworthiness.

Carefully explaining every step leading up to conclusions while being attaining to operationalizing the steps are the most common way of demonstrating reliability in qualitative research (Yin 2017, 45).

In this section I have provided the reader with a description of the method of data collection, the inclusion of cases, conducting of interviews and issues concerning access. In elaborating on this I will briefly discuss the matter of subjectivity as the researchers personal traits and background may also have an effect on data collection. Subjectivity relates to the insertion of personal resources, opinions and characteristics in a research project and is often contrasted by objectivity (Hay 2000, 389). While I feel confident that I have not exercised any dominance on informants based on my personal opinion or characteristics, my personality and background may still have had some influence. Notably there are two things I have reflected on, my background as a designer and being visibly pregnant. As I presented myself my interests and background as a designer came up, this information may have influenced the interviewees in on or two ways: the designers saw me as one of them, and the hospital staff did not. While I was careful to express my neutrality on the subject I cannot exclude that this piece of information on my background may have affected the information I received in some way. Pregnancy has little to do with collecting data, however I found it to be an effective icebreaker as many of my informants were themselves new parents, or new grandparents. Second, I had a strong sensation that my being pregnant helped render me harmless in a way, and that most of the informants felt inclined to "help me". This contributed to a relaxed and friendly atmosphere in the interviews, providing a natural setting for questions of experiences, feelings and motivations.

Validity

The term validity refers to the relationship between the objective and the results of the research. Any discrepancies might render the conclusions less valid as the process of getting from A to Z become unclear.

The case study as a research method is commonly criticised for its lack of generalizability. Advocates of the method state that this is not the case, but the transferability of case studies needs to be assessed in a different light than that of a study with many observations. The criticism of transferability can be ascribed to this thesis as well. The question of transferability in a study like this, where the number of cases is highly limited is a challenge. The question of transferability needs to be discussed, not just in terms of transparency but also in terms of validity of the research.

A study's external validity, or generalizability can be assessed in terms of its ability to apply results from a smaller study to a larger population. As noted above, lack of generalizability is a common point of criticism of case studies. Proponents of case studies argue that such studies aim at analytical generalizations as opposed to analytical generalizations (Gomm, Hammersley, and Foster 2000, 1). This implies that the researcher should try to generalize the result of the study in accordance with broader theory. This thesis makes use of concepts from the innovation literature and analytical frameworks from organisational and management theory in providing a link between the data collected and a more general theoretical concepts.

4.1.8 Ethical considerations

The focus of the thesis and the subsequent case study is work, and working with innovation. As a researcher I was invited to informants place of work and in some instances a café. I was not looking for personal or sensitive information in the data collection, still the nature of the study meant that the informants could be identified by place of work and position in the organisation. This requires an approval from the NSD, which has been granted.

Upon meeting the interviewees I presented the theme and purpose of this thesis, and a consent form, informing them of their rights to withdraw from the study at

any point or how to complain of any wrongdoing on my behalf. I also offered anonymity, which one of the interviewees wanted. In retrospect I see that full anonymity in this this thesis was difficult as the limited number of cases and people linked to the cases can make identification possible. For this reason I have chosen to exclude some findings that were of real value for me, but could pose a burden for the informant. I have also decided to exclude all names as including them has no purpose. This also makes providing anonymity easier.

Even though this thesis partly takes place in healthcare and in hospitals, I have not observed or had access to any kind of patient or sensitive information regarding peoples' health.

5 *The three case studies*

5.1.1 Introduction

Building on the empirical data collected for this thesis, this chapter provides a description of three different cases. I will introduce the cases chronologically and present the data in light of the research questions stated in the introduction, illustrated with excerpts from the interviews. I will describe what characterises the design practice and try to answer why design was commissioned, and what the process looked like for those involved. In assessing whether or not design functions as a change agent in these cases, I turn to what types of problems the application of design tools are meant to solve and how this affects the innovation process. Finally, I will explore how including designers in hospital innovation projects affect attitudes towards the role of the patient and the organisations ability to act on the patient perspective. The research questions as stated in the introduction are as follows:

1. *Characterising design practice*: What does the application of design entail? Why and how are these projects commissioned? And how does the process unfold?
2. *Design as change agent:* What types of problems does design tools address, and how does this affect the innovation process? And how does the application of design tools affect the ability to capitalise on the patient perspective?

The cases that make up the empirical data of this thesis consist of three different projects in the field of medical specialised care. Case 1 is called "If the patients could decide" and was carried out at the Oslo University Hospital in the period 2012 to 2013. In this project the design firm Designit joined the staff at the Breast Diagnostic Centre at the hospital in the task of trying to reduce the long waiting time for diagnosis of breast cancer. Case 2 is called "A little bit better every day - staff induced process improvement" at the Hospital in Østfold in collaboration

with the design firm Halogen (2015 – 2016). Here the mission was to improve the hospital's internal practices concerning improvement work. Case 3 is called "Traveling in dignity: Transporting psychiatric patients in acute crisis" at the Hospital in Vestfold in collaboration with the design firm Livework (2014 – 2017). As the title suggest this project is concerned with improving the quality of the pre-hospital and ambulance service for psychiatric patients.

Before embarking on the detailed case descriptions, I will present some of the publicly funded programs and initiatives aimed at stimulating the use of service design in the public sector. Two of three cases included in this thesis were funded through one of these programs.

5.1.2 Public Programs that support the use of service design

The Norwegian government owns DOGA through its Chambers of Commerce. DOGAs mission is to strengthen the role of design and architecture when shaping the future of Norway (DOGA). Behind this somewhat vague and ambitious mission statement is the idea that the creative industries can play a key role in strategic innovation efforts. A point underlined by the fact that DOGA is a part of the Governments funding agencies for innovation. DIP offers financial support to companies who wish to include designers in their innovation efforts. Funds are distributed after a thorough application process where representatives from DOGA and the Norwegian Research Council choose which projects they believe will have the most benefit from design driven innovation. The criteria's for acceptance in the program include level of user involvement, and active use of design consultancy, in addition to requirements that address the level of innovation and impact more directly.

The DIP program primary focus is on the private sector and increasing competition, although several projects in the public sector have also been included. 132 different projects have received funding of a total of NOK 54 mill

since 2008. Approximately 40 % of the funded projects concern innovations on services, the latter include product, business model, and organisational innovations (DOGA, 2018)

DIP focuses explicitly on the idea generation phase of the innovation process. In practice this means that designers will only participate in the early stages, leaving piloting, implementation and further research to the businesses themselves. According to DOGA, DIP is meant to:

"Finance and generate idea development projects where the user is the main focus through systematic user studies, and where design is the driving force in the project. The purpose is to develop new products, services, business models, or forms of organisation that give a competitive advantage and increase user satisfaction."(DOGA, 2018)

The government has increased the funding for DIP in the 2018 national budget, and has asked DOGA to take a leading role in stimulating the public services to invest in design projects. DIP is no longer open for applicants in public healthcare, but two projects have previously been funded through the program.

Catching time thieves through design

The "Time thief" initiative consists of three separate cases in the Norwegian health sector. The projects common feature is that they struggle with the organisation and efficiency of their services in some way, and that employing a more user oriented approach is believed to be a viable strategy in solving some of these challenges. The Time thief program is funded through DIP, but is a separate program and thus not part of the annual DIP application at DOGA.

The "Time thieves" initiative was realised at the bequest of the Ministry of Local Government and Modernisation (KMD) and managed by in DOGA and DIFI. The

imitative is part of a larger scheme directed at making everyday life easier for citizens. The Government defines a time thief as:

"Anything ranging from a unnecessary reporting, nonsensical forms to cumbersome IT-systems. What defines a time thief is whether it steals time from authorities or citizens, and that there is consensus among the main beneficiaries." (The Prime Ministers Office, 2016)

In this thesis, case 1 is funded through DIP and was upon project initiation in 2013 the first project in the public sector to be included in the program. Case 2, is funded through the "time thieves" initiative by KMD and indirectly funded through DOGA. Case 3, has no affiliation to any public programmes aimed at service design.

5.1.3 Case 1 "If the patients could decide"

The Oslo University Hospital (OUS) consists of several hospitals in Oslo, offering both emergency and specialist care to the city and to the greater region of the Southeast of Norway. As the name indicates, the hospital is a research hospital with close ties to the University in Oslo in education and research activities. (OUS, 2018) The OUS was established in 2009 with the merger of Aker University Hospital, Rikshospitalet University Hospital, The Norwegian Radium Hospital and Ullevål University Hospital. The merger was designed to strengthen the role as a local hospital, unite regional functions, make a more efficient organisation and improve the patient care (OUS, 2018) The merger has not been uncontested, especially among the hospitals staff members, who have publicly voiced their concern for patient safety and the consequences for moving and "disturbing" well-established medical communities.

The hospital states that its main tasks include; patient treatment and care, research, educating and training health personnel, educating and training patients and their families. With treatment of over 1 million patients per year the OUS is a vast

organisation on Norwegian scale, and they are also a massive employer with a staff of over 18 000. Being a University Hospital means that OUS has a research and development department, an innovation department and even an innovation clinic set up to collect and develop good ideas from the staff.

The problem addressed by the innovation project

One of the hospital's specialist services is the diagnosis and treatment of breast cancer. Breast cancer is one of the most widespread cancer types, affecting approximately 2800 Norwegian women each year. However, if caught early it is also on of the most treatable forms with survival rates up to 80 per cent. Both specialists and policy makers have focused on reducing what was a major bottleneck in diagnosis: At OUS the average waiting time, from when the women was suspected of having cancer and referred by her general practitioner, to being properly diagnosed at the hospital, could be as long as 12 weeks. The long queues where jeopardising successful treatment and causing massive turmoil for the patients. The examination of breast patients, the surgical and the oncological treatment located at two different hospitals within the OUS system, Ullevål and the Norwegian Radium Hospital. Patients undergoing breast reconstructions at Ullevål Hospital will additionally be transferred to Rikshospitalet Hospital for recovery, thus including a third hospital for many patients. There is a plan in place to relocate and collocate the entire diagnosis and treatment of breast cancer to a single location at The Norwegian Radium Hospitals. However these plans have been suspended for the time being. The many locations where viewed by the medical community as a major hindrance to their work, as the coordination of treatment spanning several different locations, teams and hospitals is both time consuming and difficult.

Another factor explaining the long wait are the many different ways to enter the hospitals system through referrals. The specialist team found that many GPs where unclear of both how to write a good and clear referral, and also where to actually

send it. Receiving and assessing referrals was thus more time consuming than it needed to be, again increasing waiting time for the patients and complicating the process for the staff. In general, diagnosis and treatment of breast patients will include the BDS (breast diagnostic centre), the section for breast - and endocrine surgery, the department of pathology, the department of cancer treatment and the department of plastic surgery. These five different departments are again spread out over three different hospitals.

In 2011 a joint effort by an interdisciplinary team working on breast cancer was made to analyse the existing organisation of both diagnostics and treatment. A workgroup was assembled with the mandate to identify bottlenecks and propose solutions. The report "Optimal procedure for patients with clinical breast problem" was handed to the OUS top management upon its conclusion (OUS, 2011). One of the doctors on who worked on the report explained:

"We were very happy and proud of this work. We felt like we had made way in terms of defining what the problems where and also in identifying possible solutions. But then it probably just ends up in somebody's desk drawer." (OUS doctor)

This is described as somewhat typical. The doctors, and other professionals directly involved in treatment, felt like they make efforts to make changes and improvements. They also think that management seldom realises their efforts, deterring them from wanting to participate in such work again.

In this case, the report was atypically lifted out of the drawer and read with keen interest by the hospital's project director. He was looking for a suitable project for testing out service design as a method in improving the hospitals services. The interest in service design came from a meeting with the director of DOGAs Design Driven Innovation Program (DIP) that in turn was set up by a manager in the hospital's innovation department. The innovation manager, knowing both

directors, had a feeling that the two men would "hit it off" and find many common areas of interest. It is worth noting is that the link between the BDS and the DIP program is the project director.

The need for new tools to solve complex problems of organising a complex service, and a project director with a newly found curiosity and passion for service design was the backdrop that led to the application to the DIP program. DOGA and DIP also saw the potential to demonstrate the utility of service design and welcomed the entry into the public sector. The Design firm Designit, a large international company of Danish origin, won the bid. On the choice of Designit one of the doctors on the team explained that company representatives carried themselves with a certain confidence and security that the hospital staff found reassuring when embarking on this new venture. However, when work on the project started many of the team members where surprised and disappointed to find that the designers they would be working with were not the ones they had previously met. This meant that the project got a somewhat rocky start, as the hospital staff were already quite sceptical of the utility of design in solving their problems.

The process

To say that not all of the team members on the breast cancer project shared the project director's enthusiasm for service design would be an understatement. One of the doctors on the team used the term "the emperor's new clothes" when asked to describe what she first thought of their new tool. Design was not considered to be a viable tool for solving medical problems. The reference to the H.C Anderson fairy-tale indicates a view on design as an illusion or as a fad. It also shows that the designers had a difficult task ahead of them as co-creation is at the very core of their method. To familiarise themselves with the project and the challenges of the case, the designers invited the entire project team to a start-up workshop. One of the doctors on the team found this use of time and resources puzzling, as illustrated in the following quote:

" ..to spend peoples time like that. To use all these resources, to tell someone about something? To teach them. Are we supposed to spend our time on these people who don't know anything? Shouldn't we find someone who already understands this " (OUS doctor)

I asked several of the team members about what I regarded to be a trust problem, and how the designers worked with that. They gave different answers but there seemed to be some consensus from the medical staff on a sort of harmlessness in the designers. One doctor liked that they didn't dress like ordinary consultants (in suit and tie) but were more like them (i.e. medical staff). Another felt that the open nature and curiosity that seemed to drive the designers where sympathetic features: they clearly weren't out to get their jobs or challenge the professional's authority. Many describe the first workshop as a "table turner". There was initially much scepticism before this meeting and most of it dissipated after. The purpose of the workshop was twofold: first it allowed the designers to get a better understanding of the actual problems they were there to solve, and second it helped create a shared understanding of the problems in the project team. While many of the staff perhaps found the former a bit irritating, they appreciated the second purpose: having a space to openly talk about their problems together. One of the doctors I interviewed remember the first workshop this way:

"They held a great big meeting, with a broad invitation for all included in the treatment of breast (cancer) to participate, and the designers were there to lead the meeting. We had cleared our schedules for this meeting and the floor was open for all sorts of questions. The designers asked very simple questions and this made a good opportunity to bring forward the different problems. There was no such thing as stupid questions. I think that was very important to build a shared understanding that we would all be working together. It provided us with a good foundation and we got to know each other and the different specialties and fields. I remember thinking that this was a good start." (OUS doctor)

For the designers the workshop provided them with first-hand knowledge of what the problems were, who were involved at what stage and how they all

communicated. As I have not been able to interview the designers working on this case I must rely on public documents available on the process, and what team members have told me about the different activities they participated in. From what I understand the designers shadowed some team members at work, watched what they did and asked why. They also conducted interviews with breast cancer patients (as well as members of staff). The project manager on the team selected these patients, but neither she nor other representatives from the hospital were present at the interviews. This was a point made by the project manager. She believed it was better that the patients felt like they could speak freely about their experiences at the hospital without any of the providers of treatment being there. The first workshop, the shadowing and the interviews made up the fieldwork for the designers and formed the basis of the changes they later suggested. After the designers analysed the findings they held another workshop where the aim was to come up with ideas for new solutions. From what I understand, the designers presented their findings by visualising the patients experience through the means of the "user journey". Seeing their service through their patient's eyes in this way proved a sort of eureka-moment for many on the team. According to the DIP director this is where the transformative power of service design comes into play: *"The visualisation is an unleashing tool, it makes the people sitting around the table to look for solutions together." (DIP director)*

While the workshop and the patient perspective is no doubt useful, the previous work the team had made on this very subject was very important for the project's success. The challenges posed by changing locations and teams; spanning several departments and medical practices, combined with a messy referral practice, was of course well known problems for the staff, and a constant source of frustration and worry. What the project director found in the "Optimal Care" report was a clearly stated problem, a clearly defined patient group and a highly motivated and knowledgeable, consolidated multidisciplinary team. This seemed to line up nicely with what the DIP-program is all about: improving a service by examining and

redesigning it from the users perspective. Redesigning medical services around patient needs, also fit the bill in terms of the government's upcoming plans for standardised cancer treatment ("Pakkeforløp for kreft"), and could thus serve as a pilot and "beacon project" in this new landscape.

The interest of the project director also demonstrates a fundamental feature of the projects success. The champion in the project is undoubtedly the project director. He was the initiator of the project: it was he who found the "Optimal Care" report and decided to lift it out of the drawer, it was he who applied to the DIP program, and finally it was he who secured commitment from the hospital. The DIP director also stressed the project director's importance to the project:

"He (the project director) owned this project. The benefit was that he was placed pretty high in the hierarchy. He felt that this was important, not that many others shared his belief. The designers would have been banging their head against the wall from the get go, if it weren't for him. He was there all along, giving guidance, cheering on the team and things like that. We see this in the other projects we are involved in too, you need someone who can carry the project." (DIP Director)

The project director was instrumental to this project both in terms of his presence and his personality, but also through his position in the central management. Through his place in the hierarchy he was able to get the clinic directors of all the clinics affected by this project, to agree to implement what the project group suggests. The project director himself, referrers to the securing of commitment as "the credit card trick". This involved obtaining guaranteed funding from the managers of all the affected clinics prior to initiating the project work. Trick or not, it was certainly effective in giving the group a purpose, as they knew that heir efforts would actually be implemented this time. The director's personal dedication to the project and design tools also serve as a motivation for many on the project team, they enjoyed working with him and his enthusiasm was spreading.

The result achieved in the project

The formerly mentioned work on the optimal treatment of breast cancer laid the foundation for the work in the design project. The internal team had identified what they believed to be the biggest bottlenecks in their system and they were also aware of the challenges in communication between the different clinics, hospitals and professions posed. What the designers seemed to offer was a way of structuring these insights through focusing on the patients' experiences. Although the team had identified the main obstacles, they still had some blind spots regarding their patients' experience of the care they received. DOGA produced a film about this project, which has been useful to me as it includes interviews with people I've not been able to talk to myself. The team at the hospital, DOGA, and I assume the designers, are all happy with the film and its message. One of the insights presented in the film is that the patients find comfort and ease when they have received the cancer diagnosis. This was puzzling to the hospital, as learning such a negative fact of ones health would be difficult to bear for most people. For the designers it proved their point very well: just how bad hospitals diagnostic services where when the patient was "relieved" to get a cancer diagnosis. Exploring the subject further, the team learned that the patients found the position of waiting so insecure that it was even more stressful than actually learning that they were seriously ill. Upon being diagnosed, they knew that they were in the system and would be offered the best treatment available. This insight proved somewhat of a turning point for hospital staff in how to talk to patients and what could be learned. Specifically it taught the hospital that their services extended further than they were aware of. As previously noted the hospital did already do a lot of patient involvement and the doctors also felt that they had good communication with their patients. What they regarded as different in this project was a sense of agency that the patient perspective offered. As explained by one of the doctors on the team in this quote:

"The patient focus was very important in all the actions being taken in this project. I think that we have always had a strong focus on patients even before this project started. So, the focus on patients isn't new, but we haven't been able to deliver. But what the designers did with this focus on the patients made it much easier to make things happen. It was a lot easier to get support from management for example. The process was made more visible. We were granted funding for private X- ray arrangements; we were given funding for a videoconference room. And we were granted funding for a patient coordinator from Kreftforeningen. The patient became a sort of crow bar, in a sense." (OUS doctor)

The most important of the changes triggered by this process was according to several of the doctors on the team, the funding that allowed them to commission assistance form private X-ray institutions, and the funding for the patient coordinator. The former was instrumental in allowing the team to effectively cut down the waiting time without buying new equipment or increasing their staff. This agreement, and how it came about, is described as an innovation in its own right by one of the doctors. The second measure – the patient coordinator - secured a better patient experience. This gave the patient a number to call and a qualified person to ask questions while they waited.

In the presentations of the project and its results, the hospital management claims that they reduced the waiting time from three months to just 48 hours. The staff members I have since talked to expressed a need to adjust this claim somewhat, as the numbers presented at the launch were preliminary. But there is no doubt that the waiting time has gone down drastically and that the solutions manifested through this project are still in play.

Case summary

In the Project "If the patient could decide", the motivation for commissioning design was twofold: first staff frustration and patient dissatisfaction with the status

quo: and second the project directors interest and enthusiasm for service design. The designers were initially met with scepticism, but were able to build trust by demonstrating their methods and through several workshops. The patient perspective proved useful in closing some of the gaps in the staff's understanding of patient experience and specifically in seeing the full range of their service. The designers had a clear supportive function in harnessing the patients' experiences in a way the hospital staff could utilise. The patient perspective was most effective in identifying the problems, and in building a common understanding of these. Participating in a design driven innovation process also served to attract management's attention resulting in funding for private X- ray collaborations. Management's attention was also secured through the close participation of the process director; in addition to the more functional effects of his presence, he also provided the project with legitimacy and a sense of importance.
However, neither designers nor management would have been effective in solving this problem; if it weren't for the work the professional team had already done through their report on the optimal treatment on breast cancer.

5.1.4 Case 2 "A little bit better every day"

Østfold Hospital (SØ) is the regional hospital in the county of Østfold and its population of approximately 287 198 (per January 1. 2015). The hospitals purpose is to offer the county's citizens full specialist care, in terms of diagnostics, treatment and rehabilitation, and to cooperate with general practitioners, municipal health services and other health organisations (HSØ, 2017)

After years of operating on several locations SØ opened their new hospital building at Kalnes, just outside the city of Sarpsborg, in 2015. With a staff counting almost 5000, the hospital at Kalnes is the biggest employer in Østfold. SØ has its own Research and Innovation department that is actively pursuing the hospitals

ambition to become one of the leading non- university hospitals in terms of scientific output (Sykehuset Østfold, 2014).

After focusing much on their innovation efforts on implementation of new technology and the new hospital building at Kalnes, the hospital management wanted to review some of the hospitals services. This review corresponded with the call for projects from DOGA and KMDs to "catch time thieves" (i. e. increase efficiency). The hospital applied to this program with a project called "A little bit better every day" in 2015. As with the case at OUS, a personal connection to DIP and its director served as a door opener to the field of design at this hospital. The senior safety representative is the spouse of the DIP director; and one of his visits to the hospital spurred an interest in applying to the program. The hospital emphasises innovation work and has taken a progressive stance to development and sources for change. This also included openness to trying new methods and tools that in many ways led the process manager to apply to the "time thief "initiative.

The problem addressed by the innovation project

The project at SØ differs slightly from the other cases in this thesis, and also from most service design projects in health. Here, the main focus is employing design methodology on refining the procedures for reviewing the internal processes on improvement work. Process improvement has been a focal area for the hospital for several years prior to entering the time thief program.

I have found this project somewhat difficult to grasp thematically. It has been challenging to get a simple and clear answer on both what the projects initially set out to do and why design was chosen as the preferred tool. I believe part of this can be explained by the somewhat coincidental way design was commissioned. I also find that building a new hospital with the subsequent move was a very demanding and resource intense process, somewhat obscuring the usefulness for this project at the time.

After the application to enter the DIP- funded "time thief" program, and the project was granted, the internal project team chose the design firm Halogen for the task. Halogen is a Norwegian digital consultancy with offices in Oslo and Stavanger. Halogen also has a large design department focusing on developing services for the both public and private sector.

The process

SØ had already spent about two years on optimising their improvement work and the organisation of these efforts. The purpose of conducting strategic improvement work in a hospital was to ensure better and more effective patient care. As the process Director at SØ puts it: *"Better is connected to more efficient. They are proportional" (Process director SØ).* According to the hospital the staff already had a good practice for conducting improvement work and there was a certain level of acceptance of continuous improvement.

As noted above, this case differs from the other two cases in this thesis in the problem definition. Its aim is not to improve one of the hospital's services, but to improve the way the hospital improves itself.

This proved to be somewhat challenging in the beginning both for the designers and for the project management. It was important for the designers to get a clear understanding of what the hospital wanted them to do and to get an overview of who would be involved. A feeling that the hospital might not be fully aware of what kind of tool they had commissioned additionally clouded their view to some extent. One of the designers explain:

"It became apparent that they didn't quite understand what they were getting into and perhaps did not fully understand what they had ordered. And we didn't really understand what they wanted. The order wasn't very clear. This claimed a lot of time in the project, both for them and for us. It is a bit typical, we always need to make sure that everybody

knows and understands what we have come to do. But here we spent a lot of time. (Designer, Halogen)

Once they had sorted out the general mission and expectations to the process, the designers started gathering information. What is included in an insight phase relies on the project and the context. This project set out to enable improvement work inn all staff, so consequently should data collection ideally be carried out in all parts of the hospital. Due to limitations in both budget and time that was not possible, and two clinics in the hospital where chosen: one that represents the somatic treatment and one representing the psychiatric care. The hospitals sterilisation central was chosen on the somatic side. This is where all the surgical equipment the hospital uses is cleaned and sterilised. The other clinic was the District Psychiatric Policlinic in Halden (DPS), a clinic offering outpatient psychiatric treatment and counselling, set up much like a GPs office. The two units were chosen because they served very different functions in the hospital, with services directed towards both internal (staff) and other external users (patients). The insight phase in this case involved observation and interviews with hospital staff and patients at DPS.

After the insight phase was over, the designers invited the team to participate in a workshop. The case at SØ is in many ways two different processes, as it takes place at two different clinics. When talking about the process, the designer I interviewed spoke mostly about the process at DPS so there might be parts of the process I have not been able to portray. The description of the workshop that follows is hence from DPS. The workshop involved an open invitation for all who were involved in the everyday life at DPS. This meant that everyone, from the secretaries to the psychiatrist, where asked to participate. One of the core values of service design is the method of co- creation. The designers described this approach in the following manner:

"We need to work with and not for. We do not possess the knowledge and competence in all the professional fields we come across, so we have to use the expertise that is there, for instance in the hospital. We facilitate the process and make sure that the right people participate. We do not come in with finished solutions. It's about allowing people to take ownership of what they are creating, and believing in them. This ensures a process that is not detached from the organisation. That doesn't work" (designer, Halogen).

The workshop was described as a positive experience by most. Part of this is due to the fact that someone external to the hospital actually came in to ask them about their job. That seems to represent a somewhat rarity in most healthcare professionals lives. Another important feature of the workshop was its sense of novelty and perhaps even fun. Working in an organisation that favours evidence and long paper trails, the workshop posed a pleasant break from ordinary work for the professionals. The designers brought with them tools and activities unknown to the participants, and most of them found them interesting. One of the tools the designers brought to the workshop at DPS was a form where everybody was asked to write down their matters of heart and annoyance. In that way all participants felt like their voice was heard and the awareness of colleagues perceptions and motivations were made known to all. Every workshop has a goal, in this case the designers wanted to find out how the DPS teams workday looked like and what kind of tools they might need in order to advance their improvement work.
The designers also brought one of their most used tools: the patient (or user) journey. Here, they used what they had learned from an interview with a specific patient to demonstrate how the DPS was experienced from the patients view. Although the project mission was not aimed at the patients and improving the service towards them, the designers wanted to show the team what they could find out using this tool. The designers thought that the patient journey was effective as it demonstrated so clearly "where it hurts" and in doing so showed the team where improvement efforts are most beneficial. The user journey was also put in use on the staff at the sterilisation central. The designers wanted to understand why the staff was so busy all the time and where able to find some "pockets of time" by

drawing up their day as a time continuum. While the designers have a lot of faith in the effectiveness of the user journey the hospital did not seem to share their conviction.

The previous and on-going improvement work at the hospital has served as a sort of double-edged sword in terms of value detained from using design. While prior experience with improvement through the lean methodology had opened a new perspective for the professionals on how they performed their tasks and to what benefit, it also supplied them with a certain way of doing this reflections and questioning that they preferred. A project manager at the hospital made this point in the interview:

"The clinics do not really use the tools the designers came up with. They already have well-tested and well- functioning tools from lean that contain many of the useful principles from improvement work. They prefer to use these tools, and I don't blame them, they work very well!" (Project manager SØ)

While the designers did not dismiss or challenge lean tools they did find that the framework had some limitations. Their main objective was that lean focuses mostly on time allotment and efficiency, and somewhat ignore the patients' experience. Taking a more patient centred approach implies that internal processes and treatment are not viewed as two separate entities, but both indicative for the patient experience. While the hospital most likely does not disagree with this claim, they seemed unable to act on it, as the patient was not the focus of this project.

The result achieved in the project

The hospital set out to get designers to help them help themselves to improve. No easy task for anyone involved, yet many useful tools were derived from the process.

A toolbox that made improvement work easier and more accessible was the "spec" from the hospital. The designers responded by providing them with tools such as the "patient journey", "method cards" that gives a short and easily understood description of improvement methods, a website that lists all the tools and information about them, and a structured way to do interviews.
While discarding many of the methods and sticking to their preferred lean tools, the design toolbox has spurred an interest in seeking patient experience in other parts of the hospital. In this way the design-led process did spark some changes in the attitude towards including patients. The hospital has since this projects conclusion in 2016, planned for new activities with a higher degree of patient orientation in other areas of the organisation. In terms of what the hospital gained from entering this project the PM explains:

"It was useful that the designers were knowledgeable about service innovation, that was beneficial for us. One of the main results was that they uncovered that we don't spend enough time with our patents. And we thought that we spent loads of time talking to them! But that turned into a training program, and when we are working in the units we are pushing the patients experience a lot more. By talking to patients, and by observing the actual treatment. We call that shadowing the patient.
That wouldn't have happened if we didn't have the designers here. Even though, they haven't specifically said - you need to shadow the patients. " (PM SØ)

This citation shows that the patient perspective have been appreciated and valued as a worthwhile cause and idea after the designers time at the hospital. This suggests that the applicability of design on the "a little bit better everyday" project was perhaps restricted, but the designers were able to demonstrate their tools to the hospital management. More recent efforts to include patients' experiences in a deeper and wider sense are indicative of this, perhaps making this project a learning experience for the hospital.

Case summary

A combination of curiosity and opportunity led to design being commissioned in the case of " a little bit better every day". While progressive thinking and openness to new sources of ideas are generally positive traits in innovation work: the "why not" attitude towards design might not have been the best prerequisite for undertaking a change process. The designers spent an un-proportional amount of time simply understanding the task, suggesting the commissioning process was not as clear and thought trough as could be. The timing of the project also posed a challenge as the new hospital building and subsequent move had been a wearying experience for the staff.

The hospital had extensive experience with improvement work prior to the design project. This proved to be a double edge sword as it paved the way for conducting this type of work, but at the same time limited the designers' scope as the hospital was so committed to their lean tools. Both hospital and designers were happy with the result of the project, albeit emphasising different tools as useful. In this case, the patient perspective was not very effective, mainly because the patients' experiences were not the target for the project. The designers highlighted the user journey as an effective tool, whereas the hospital did not see the same benefit. According to the internal project manager in this case, the later engagement with more patient centred activities is a direct result of the hospitals participation in the "time thief" program and experience with service design.

5.1.5 Case 3 "Traveling in dignity"

The Hospital in Vestfold (SIV) is the regional hospital in the county of Vestfold. The hospital is responsible for providing the county's population with specialist care in addition to education of staff, research, and educating patients and their

families. Mainly located in the cities of Larvik and Tønsberg, the hospital was collocated in 1998. The Hospitals R&D and Innovation department focuses on both product and service innovations, under the common mission to improve patient care (SIV, 2018).

The project was financed by the Ministry of Health and Care Services and the Ministry of Justice and Public Security through HSØ, and is part of a national strategy plan for improved mental health. The project was conducted at the Pre-hospital clinic at SIV in collaboration with the service design firm LiveWork. The hospital wanted to review and improve the quality of its pre-hospital service towards psychiatric patients in acute crisis. Pre - hospital services include the AMK central (emergency operators) and the ambulance service. The project was named "Traveling in dignity: Transporting psychiatric patients in acute crisis" and work was initiated in 2015 and was at time of the data collection for this thesis still under implementation.

This project differs from the other two in terms of the procurement process of the design consultancy. The project at SIV is not a part of DIP or any other target design driven innovation program, although it has external funding through innovation grants by Helse Sørøst. Here, management of the pre-hospital services wanted a tool that would help them with systematic collaboration between all the different actors who were involved in delivering one of their more complex services. The funding granted by HSØ was initially meant for a particular ambulance service for psychiatric patients. However, managers at the pre- hospital clinic at SIV did not want this ambulance service, as their clinics and care facilities spread over a large geographical area. From similar projects around the country they had also learned that ambulance service for psychiatric patients is mostly offered on workdays, a schedule their patients did not necessarily keep. As their application to receive funding from the regional health authorities went against the programs mission, the managers at SIV felt they had to deliver something that was

above standard. They saw this as a good opportunity to test out service design, a desire that had been latent in the clinic management for a while. The director of the clinic had previous experience from private sector and working with this type of approach. The hospital also had a prior positive experience with service design through a project at the Coastal Hospital (Kysthospitalet) a project that was concerned with rehabilitation of cancer patients with funding through DIP (SIV, 2017).

The conscious decision to acquire design services in this project also helped guide the procurement process. The project manager saw this as a learning opportunity; in terms of what service design is, what the hospital required and expected of this tool, and what the process would require from them. This thoroughness in the process led the project team at the hospital to be very critical towards what type of design consultancy would be the right fit for them. They chose the design company Livework, that is the first design firm to work exclusively with service design, and also had prior experience with working on projects in the health sector.

The problem addressed by the innovation project

This problem is in many ways the most complex of the three cases, as it involved the ambulance services, the emergency room, different psychiatric specialist care units in several locations, and the police. The premise of the project was to create better and safer transportation of psychiatric patients, with a clearer procedure for police involvement and the use of force. As paramedics in Norway are not allowed to use force, the police were often called to deal with violent and difficult patients. The paramedics often felt unsafe on these calls, as they never quite knew what state the patient was in, and whether or not their own safety or that of the patient would be an issue. It is often a concerned family member or someone in direct proximity to the patient who contacts emergency services, and not the patient themselves. In the cases where the patient was unwilling to follow the paramedic's instructions, the law requires that police be called for assistance. The project's

mission is not to change the chain of command, but police expressed frustration as they felt they were being increasingly used for transportation of this patient group. The ambulance services shared their frustration to some extent, by wanting a clearer picture of whether police would be needed or not, before responding to a call.

In this case there is a political backdrop in terms of who was responsible for this challenging group of patients. The police wanted to make publicly known how time and resource consuming this patient group was for them, and was interested in labelling this group of patients a "healthcare problem". The healthcare services on the other hand did not wish to become an executor of the law, by acting against peoples will in the open society. For them this is an unfortunate and undesirable confusion of roles. They were however very interested in making the procedures clearer, and the cooperation between the different authorities better.

Being driven by police or ambulance also had strong implications for the patient. Aside from the obvious difference in status, the police procedure was to always bring the patient to the emergency room at the hospital. The paramedics, perhaps having a greater understanding of the referral practice of the emergency room, would try to take the patient directly to the specialised care unit. Sometimes this meant a long journey, as finding someone to take responsibility for the patient could be challenging. In some cases the specialised care units refused responsibility as they had prior experience with the patient in question not responding well to hospital admittance. This meant that the paramedics would have to drive the patient back home again. While this is a "worst case" scenario description, it is still telling as it demonstrates a very compartmentalised way of operating the service. The compartmentalisation was bothering the management at the pre-hospital clinic at SIV who saw the frustration in both their paramedics and their patients.

The process

When I asked the project manager at the pre-hospital clinic about her experience with the design process she was generally positive, but made a remark on how the "designers must not be let loose at the hospital" (Project Manager SIV). She continued to emphasise this throughout the interview and it was clear that she felt that this type of project must be managed closely. She went on to explain:

"I'm glad I was so prepared to work with service design. Because you can't just let service designers loose in the healthcare service. I think it is crucial that those who have the medical knowledge and the knowledge of the organisation and its mandates are close to the process and can make adjustments as they go along. It's not like a small private company where you have the governance to make decisions from A to Z and are free to design a service from best practice. There are so many actors involved here, actors of which we have no mandate to control." (Project manager SIV)

The project manager's dedication to participating in the project had an effect on the process, as did the focus on coming up with solutions that could be implemented. This was an explicit effort of both the clinic and the designers. The hospitals project manager is the champion in this case, although commissioning design is not initially her suggestion. She was very dedicated to the process, from start to finish and clearly wanted to make the most of the opportunities provided by the project. The involvement and dedication from the project manager at the hospital is emphasised as a positive trait by the designers. The collaboration between the PM and the designers provided the team with a fruitful dynamic and helped the designers make sense of the complicated web of mandates, interests and responsibilities that was symptomatic of this project. The importance of staying close to the process was repeated and emphasised by the PM several times during our interview:

"I have been present in all interviews and participatory observation. Basically to ensure that I am the one who is left with the insight when the designers leave. It would be a pity to just send away everything one has leaned in the process"

This quote illustrates a difference in the level of involvement than what was found in case 1. The hospitals project manager in case 1 emphasised the importance of not being present for the interviews, as she feared that her presence might limit the patients in some way. The need to "not let the designers loose" can be understood in two ways: an unwillingness to partake in a process that is open- ended and ambiguous, or as a necessity in functioning as mediator between designers lacking in medical experience and an especially demanding and vulnerable group of patients. The designers in case 3 have not expressed any problems with the project manager's involvement. However, I have come to question whether the level of involvement in all areas of the process, and perhaps especially the interviews is indicative of not fully acknowledging the premise of taking a patient perspective.
During our interview, the project manager explained that sometimes she would have to correct what the patients where telling the designers. While I do not doubt that in this very context, the managers reports of the actual circumstances where more accurate than the patients, essentially, the patient experience is not the hospital's to correct.

The co-creation approach also posed some challenges in this case. Many where surprised by the level of involvement the designers required from them. Simply taking people out of daily duties and spending resources in that manner was difficult to accept for some of the professionals. At times there were language and terminology difficulties. Some of the professionals were uncertain of why the designers where there and what the consequence of their presence would be. The professionals feared that the designers would be interfering with how they were treating their patients, causing them to take a defensive stance. This does suggest the need for a committed and present project management to secure a correct

understanding of what the design- driven innovation process is and what is required from all who are asked to participate. The project manager at the hospital stayed close to the process in this case and was able to intervene and make adjustments along the way. This helped to put the hospital staff at ease and it allowed the designers to concentrate on their tasks.

The designers in this project had a similar process as in the other two; they did participant and non- participant observation, staff and patient interviews and they held two workshops that included all stakeholders.
The workshops were seen as a positive contribution in this case as well. The heterogeneity of the project group provided an extra challenge in cooperation and communication in the process. The designers' main task was to facilitate the process, allowing the team to solve the problems themselves. Structuring the conversation and work around the patient perspective seemed to have been effective. Looking at the service through the patient's eyes and through the eyes of the other stakeholders is described as useful and interesting by the project manager, as illustrated in the following quote:

"It has been very interesting to work this broadly. We have had some theories reinforced, or confirmed and we have had some debunked. And it has been very interesting to see the reality of all the different actors in this process; everybody has commented that they have learned a lot. There have been many sighs of disbelief: "If only I had known this I wouldn't have had to be so frustrated". Because it's about understanding the system, why can't the psychiatry act the way the police want and vice versa. And it's about what the patient needs and when" (PM SIV)

According to the designer I interviewed, the insight phase of this project was substantially longer than normal. This was due to the high degree on heterogeneity of the group and the complexity of the service. The long insight phase allowed the designers to get to know the group of stakeholders, and perhaps even more importantly it allowed the group to get to know each other.

After the insight phase was completed, the designers held the second workshop where the goal was to present what had been learned in the project so far. The designers went through all their insights, by simply reading them out loud. After this they went around the room talking to people about their views and experiences, writing it all down. Everybody was included and encouraged to express their opinions. For the designers this workshop functioned as a structuring tool as it gave them different themes to sort their data by. For the participants the workshop was a clarifying experience as they all realised that they struggled with the same patients, but perhaps faced different challenges. Unfolding the entire service in this manner seemed to increase understanding and awareness among members of the group.

After the workshop the designers went back to their office in Oslo to synthesise the data and start working on ideas to present for the next workshop. The process included several workshops: two that were intended to provide insight, and two that were aimed at generating and refining ideas. The designers reflected on the importance of the workshop as twofold: first it's about co- creation. Their role was to facilitate the process and allow the professionals to find a way in solving their own problems instead of coming in with a finished solution.
Second, the designer's ability to show them what their service looks like from the outside (i. e from the patients view), was equally important. It this case, the latter proved crucial, as there at times would be a sense of conflict between healthcare professionals and the police. The designers also emphasised the effectiveness of the separate space offered by the workshop, where it is allowed be wrong:

"Having a space where it is OK to say really stupid things is so important, and I think that we were able to create that. Saying stupid things is scary for health professionals, but it is very positive because it lets everybody see which ideas are realistic and not. Brainstorming in this way is tiring and when you are tired, you eventually have the courage to say the

things you usually don't. So in a way, it's about wearing down the defences" (designer Livework)

While the workshops were a positive contribution to the process, the methods presented by the designers have not always been easily accepted. The designer's way of working: being iterative, action focused and often just having a go at things, poses a substantial contrast to the mode of work in the healthcare services. The project manager in the hospital describes this challenge in the following manner:

"Most healthcare workers are used to working in very predictable steps. Taking part in a project where we have to acknowledge that we don't know what we are looking for, we definitely don't know where to find it, but it will be fun! That has been a challenge of its own." (PM SIV)

The differences in methodology was also challenging for the designers at times. As they experience in most projects, there was scepticism in the beginning. The designers are used to dealing with that, and having to defend their presence and methods. What posed as an extra challenge in this project was the sheer multitude of overlapping interests, mandates and regulations, making it a difficult terrain to work in but also perhaps deterring the team from searching for ground breaking ideas.

The result achieved in the project

According to the designers, the initiation of this project was a bold move from the pre hospital clinic. The boldness referred to taking ownership over a service where they have very little ownership and control. This meant that they consequently had very few ways of controlling the outcome, as the pre- hospital clinic has no jurisdiction over the police or the specialised care units. In this highly regulated and complex landscape the designers also experienced that their space of impact was restricted. The focus on implementation thus centred on the ambulance services which was under the pre-hospital clinics mandate, and what could be

achieved here. One of the solutions that were implemented was a "start card" that the AMK could use to get information about the patient they were responding to. The cards included questions the operator asks the caller, designed to provide paramedics with information about the patients' state. This would include whether or not the patient is suicidal, acting in a threatening manner, is carrying a weapon etc., allowing the operator to better judge if the police should be involved or not. Another important theme derived from the process was the need for better flow between the different providers of the service. As a result, a "hand over form" was developed; securing that important information about the patient actually followed the patient through their journey in the system. Previously, this was not always the case, as useful information could get lost as the patient travelled through the service.

As I finished the data collection in this case the project was granted further funding and several new solutions and changes might be in place at the time of publication of this thesis.

Case summary

The careful commissioning process and prior experience with service design led to a greater understanding of SIV could expect. While the designers and their iterative "trial and error" methods still posed a challenge to internal team members, the conscious participation of the project manager provided the team with a sense of security. While the focus of "not letting the designers loose" clearly has its benefits in this complex landscape, it might also have had some negative implications as patients where less able to speak freely.

The prerequisite for using service design in the project was to see if employing the patient perspective would improve cooperation between all stakeholders and responsible authorities in this complex service. According to the hospital project

manager, the designers were successful in facilitating this process through the workshops and the tools they brought.

6 Analysis

6.1.1 Introduction

The case descriptions has focused on describing the process as it has developed in each of the cases. However, there are also common themes in the three cases. I highlight these issues in this chapter were I compare the cases. The themes are commissioning design and what type of problems design can solve, design as change agent and utility of patient perspective. I have identified these themes as important factors for the innovation process in all three cases, albeit in slightly different ways.

The motivation for commissioning design is related to what types of problems design is meant to address. As the following analysis will demonstrate, this point is of some importance in terms of how successful service design projects will be. This point also relates to what extent design is able to function as an agent for change. Lastly, as the prerequisite for engaging with design in the public sector is accessing the patient perspective, I want to investigate to what ends this perspective is realised. A summary of themes and central findings in all three cases is found in table 4.

Themes	Motivations behind Commission	Problem	Catalyst for change	Patient perspective
Case 1: OUS	Frustration with existing, complex organisation of care. Process Director wanted to try out service design.	Long waiting time for patients, chaotic system that is difficult and time	Prior work on mapping the optimal treatment for breast patients. Design as a way	Closing gaps in understanding range of service. Patient

	Funded through DIP	consuming to navigate for all actors.	of getting managers attention and commitment and funding. Participation of Process Manager	perspective functions as identifying problems and creating consensus
Case 2: SØ	Part of larger effort on improvement work. Hospital is encouraged to apply to DIP and Process manager wants to test new tools. Funded through KMD and DOGA	Make improvement work easier to access and understand for hospital staff. Goal is for improvement to become part of daily routine	Not substantial. Design presence has sparked a general interest in patient perspective. Hospital is committed to lean tools Visualisation is useful in making tools more accessible and relatable.	Project is by definition not aimed toward patients
Case 3: SIV	Need for systematic collaboration. Previous positive experience with design, wanting to use it again. Funded	Complex service of transporting psychiatric patients, spanning	Creates a platform for collaboration leading to a more holistic understanding	Patient perspective functions as identifier, creating better understanding

	through HSØ	different authorities, mandates, and sectors.	of the service. Project manager very involved in process	and consensus on way ahead

Table 5 Themes and central empirical findings.

As the decision to invest in service design is taken on the basis of wanting a better tool for working with and managing good ideas and innovation, I find Andrew van de Ven's insights on the problems of managing the innovation process suitable. Service design is a process tool as it concentrates on offering the team members novel ways to conceptualise, create, structure and organise ways of working and acting. In this section I will use van de Ven's concepts of managing attention and managing ideas into good solutions when I discuss the process and what factors affect the service innovation process in the healthcare context.

6.1.2 Commissioning design

The motivation to commission design varied across the three different cases I have examined. In case 1 "If the patients could decide" and case 2 "A little bit better every day", the combination of opportunity and curiosity, and a personal connection to and recommendation from the DIP Director served as the backdrop for commissioning design. The two cases differ slightly on the bases of applicability of service design. In case 1 there was a clearer patient perspective than in case 2. This can be accounted for by the different stimulus programs the case projects are funded through. Case 1 was a standard DIP project where the aim was to increase innovation by user orientation and design consultancy. Case 2 was indirectly funded through DIP, as it was a part of the "Catching time thieves" initiative by KMD and DOGA. The main focus here was to increase efficiency by removing

processes or procedures that that were seen as taking time away from production. By definition this project was less concerned with taking the patient perspective.
In case 3 "Travelling in dignity", the motivation to commission design was to challenge the mission from funding agency HSØ, and to improve collaboration between the heterogeneous group of stakeholders, and finally to increase the understanding of the patient's perspective.

The factors that shape motivation to engage with service design in these three cases are an opportunity to enter a program such as DIP, "time thieves" or the innovation grants given by HSØ; curiosity and openness for trying new tools; and lastly wanting a strategic tool for user involvement in accordance to the national health plans. The factors that shape the motivations for the commission of design is related to what type of problems design is meant to address. This will be demonstrated in the next section.

6.1.3 Triggering action

In case 1 (OUS) and 3 (SIV) there was a clear understanding of what types of challenges the patients met in the services. In case 1 the main problem was the waiting time and the stress this caused the patients, and in case 3 there was a need for improving the climate for collaboration and increased understanding between the different stakeholders. These problems were not the result of any single event or action, but had rather increased over time, and had simply become part of daily life. That is not to say that the staff at both hospitals where happy with the state and quality of their services, but they had found a way to function within a flawed system. People are amazingly adaptive to their environments, often without realising that they are adapting at all. According to cognitive psychologists, individuals who are exposed to a set of stimuli that gradually deteriorate over time will not perceive the gradual changes and unconditionally adapt to the worsening conditions (van de Ven 1986: 15). This type of condition has some similarities with

the circumstances in case 1 and 3 (OUS and SIV). In case 1 the deteriorating conditions in terms of waiting for diagnosis was not only a problem for the patients, but also for the medical staff. This triggered them to act by setting down a work group to try to sort out some of the troubles. In case 2 the managers of the pre-hospital services were experiencing that paramedics where increasingly frustrated with the status quo and becoming reluctant to make psychiatric emergency calls without police backup. According to Van de Ven this sort of crisis, dissatisfaction and stress are important preconditions for stimulating innovation efforts (van de Ven 1986: 15).

The pattern of increasing dissatisfaction is usually the norm until people become exposed to "shocks", which trigger action and the need for innovation and other ways of working (Van de Ven, Polley, and Garud 2008). I suggest that design is beneficial in contributing to creating these types of shocks in the system. Van de Ven proposes that people will pay closer attention to new ideas if they have personal experience with the problem (Van de Ven 1986: 604). The patient perspective can be a vehicle to convey how a hospital's services actually function and feel to those who use them. It is at this point the patient can become a tool in the management of attention. This corresponds with van de Ven's theory of triggering action by exposure to the most demanding users (Van de Ven 1986) . In case 1, the relevance of exposure is exemplified when the professional learn how gruelling the waiting time is for their patients and that they are actually relieved when they get the cancer diagnosis. In case 3, learning not only how the patients experience the service, but also how the other stakeholders experience each other's practices provided a similar lesson.

Van de Ven et al suggest that it is the presence of concrete actions that create the necessity, opportunity and dissatisfaction that forms the major preconditions that spur innovation (Van de Ven, Polley, and Garud 2008, 30). Many new ideas may be generated but they are not acted upon until some form of shock occurs. Design can

function as a shock in this context by facilitation the exposure and confrontations of the service from the patient's (or other actors) vantage point.

Shocks are also important because they allow for the champion of an innovative idea to gain acceptance and credibility within the organisation (Van de Ven, Polley, and Garud 2008, 29). In case 1 (OUS) the champion in the project is undoubtedly the project director. He is the initiator of the project: it is he who has found the "Optimal care" report and decided to lift it out of the drawer, it is he who applies to the DIP program, and finally it is he who secures commitment from the hospital.

Van de Ven et al (2008) support the visionary traits of the champion. The champion will often not find much support for his or her insight in the organisation in the beginning: "In the typical scenario, the champions rarely controlled the resources required to develop their insights or ideas" (Van de Ven, Polley, and Garud 2008). This is true for case 1 (OUS). It was not until the project director had the DIP funding that his ideas on the breast cancer project could be realised. Having this external teammate is also of some importance, as DOGA is a part of the public funding agency for innovation. In this manner design can be seen to manage attention in two ways; first it is a shock to the system triggering innovative efforts to be undertaken. Second, it has the ability to catch the attention of management and in this way secure funding or commitment.

In case 2, the patient perspective is less dominant. I have also found that the "shock-effect" is less evident here. The reason for this is twofold, first the preconditions that might trigger innovations: necessity, dissatisfaction, opportunity, plays different roles in this case (van de Ven 1986). It was not necessity or dissatisfaction that led to the hospitals commissioning of design, opportunity did however play a role. The hospital management is known for their progressive thinking and openness to new ideas. When the DIP Director, on a visit to the hospital, suggested the hospital should try out service design, the response was "Yes, that sounds interesting". While there is nothing wrong with involving

design in an open-ended, trial and error innovation process (on the contrary, the design process is open ended and embraces ambiguity), it does require an organisation apt to take on such a project. This concerns the second point regarding preconditions, the hospital had just moved in to their new building at Kalnes, an exhausting process for all involved. The staff expressed a desire to get on with things, getting to know their new hospital building and learning how to perform their jobs in the new environment. In this sense, there are no preconditions that can spur innovation, because work had barely begun. In addition to these physical or spatial preconditions, the hospital was already involved in continuous and systematic improvement work, suggesting to the staff that any problems that were present would be identified and dealt with. So the question many asked themselves was "why?" Both designers and hospital management grappled to understand the problem design was meant to remedy, and spent a vast amount of time defining what they were there to do.

In this case, the relationship between the motivation for commissioning design and the problems design was meant to tackle is somewhat unclear. This is also evident in the final report on the project, presented at KMD in November 2016. When the hospital was asked to give advice to similar organisations interested in trying out service design, what they stressed was the importance of a clear understanding of what service design can accomplish before initiating any projects; being careful with timing and resource allotment; and to seek the council of similar organisations that have used service design (Report on Time thief Initiative 2016, 49). This suggests that the hospital perhaps did not gain as much from employing service design as they had intended or hoped, and that this is due to an unclear problem definition and vague motive for commission. This in turn affects designs ability to trigger the innovation process.

The idea that design is a shock that can trigger innovation has more resonance in case 3. The desire to not end up with an ambulance service for psychiatric patients caused the project management to seek design consultancy. They wanted tool that

would allow them to explore the spaces that linked the different parts, and actors, of the service together in order to communicate better. The complexity of the service in case 3 contributed to the precondition of dissatisfaction and necessity. There were increasing frustrations in terms of the challenging group of patients and who was responsible for their care.

Design is beneficial in contributing to create a type of shock in the system by making people work in a different manner. In this case the stakeholders were able to sit down together and experience each other's personal confrontations with their shared problems, first hand. This in turn creates a more personal and extensive understanding of the problem, which relates to van de Ven's idea of what can trigger people's action thresholds to recognise the need for innovation (Van de Ven 1986: 604).

6.1.4 Triggering change

When trying to determine what sort of impact design methodology has on the innovation process in these three cases, I find it useful to revisit the definitions of innovations outlined in the theoretical framework chapter. As many service innovations will, the ones I have studied also falls into several different categories. Applying Hartleys definition, the innovations in all three cases are clearly service innovation as they provide new ways in which services are delivered to its users. The same innovations may also be defined as process innovations as they affect the way organisational processes are designed, and position innovation as the processes involve new contexts or users (Hartley 2005, 28). As the patient or user orientation is such a large part of the design process I also find Halvorsen's theories on conceptual innovation and radical change of rationality suitable. According to Halvorsen, a conceptual innovation will include a change in the outlook of actors as such changes are accompanied by the use of new concepts. The concept of a radical change of rationality implies a change in the world view or

the mental matrix of the employees of an organisation (Halvorsen et al. 2005, 5). These definitions point to an importance in personal change or at least a difference in stance. Change, both on an individual and organisational level, is a central theme in any innovation process.

Van de Ven states that innovation is a matter of appreciation, meaning a process that combines judgements of reality and value. A new appreciation rises when a new idea, problem or opportunity is realised (van de Ven 1986, 9). These judgments of reality can be structured in terms of whose reality is dominant, the patients or the staffs. In this sense, the judgement of value becomes a question of whose experiences and expectations are the most salient.
As the patients world become more influential through the process the designers offer, a new appreciation is made that recognises the patient perspective as an opportunity. Design can trigger change, as it disrupts the social system at the hospital by challenging established hierarchies and organisations of work and practice. This new situation sets up a demand for new ideas that will explain, diagnose or remedy the disruption (van de Ven 1986, 9).

Once a new idea or problem is appreciated, the process of gestation, or a maturing of the idea in the organisation, begins. I argue that the gestation phase is an important factor affecting the innovation process. In all the cases, and perhaps most notably in case 1 (OUS), there is a long gestation phase that far pre-concedes the innovation process. The gestation stage in case 1 led to the work on the "optimal care " report by the work group, which in many ways lay the foundation for all the work in the design driven innovation process. Understanding gestation is a matter of understanding what comes before innovation and what lays the foundation for shocks to occur.

In case 1 the gestation phase was directed towards making a change in the organisation. While the changes the team suggested were not realised at the time,

it did have an important function as it raised the team's awareness of the challenges they and their patients were facing. In addition, it increased awareness of the cultural differences in the interdisciplinary team. This awareness and acceptance of differences was instrumental in the innovation process to come. The long gestation phase provided a degree of maturity, which was needed to define opportunities and implement changes found in the design process. Several of the team members in case 1, expressed that they essentially did not care what the project was called. It was not about design driven innovation for them, it was about making something happen. This does not mean that the design process or the patient perspective was not useful, but it demonstrates the prerequisite of a long gestation phase. The thorough work by the task group was also what allowed the project director to take the optimal care report to the DIP application. He needed a clearly defined problem, with a clear patient focus both where present in the report.

Paramedics and police officers in case 3 shared the frustrations with the unclear procedures regarding emergency care of psychiatric patients. The tensions were rising and helped provide a prerequisite for the innovation process, following the pattern of innovation triggers according to van de Ven. As in case 1, necessity and dissatisfactions triggers action. In this case, the hospitals and the pre- hospital clinic director's previous experience with service design and also served as part of the gestation phase securing a certain level of maturity for this type of process at the pre-hospital clinic.

The continuing improvement work in case 2 has also contributed to a long gestation phase, as staff were used to reflecting on making changes and improvements where they saw potential. In this case, however, the prior experience with these types of tools would be both a positive and a negative factor. The empirical data did not provide much evidence of design causing changes or contributing to the innovation process. In interviewing the designers on the

project, they questioned whether this was actually an innovation project at all. SØ states that "a little bit better every day" is an innovation project, and I have treated it as such. However, I do find that most of the activities and changes yielded by this project can just as easily be labelled improvements. This notion is supported by the fact that the project is part of the hospital's overall program for improvement work. Brown and Osbourne emphasise the distinction between improvement and innovation, as the management of an innovation or improvement process requires different approaches. It is a different task to support the staff in developing or refining their existing skills, than it is to support them in searching for new ones (Osborne and Brown 2013, 3). Returning to Halvorsen's concept of a radical change of rationality implies a bigger change of the worldview the hospital staff than the continuing process of improvement will entail. The conflation of the terms innovation and improvement in case 2, can be traced back to the policy documents that have fostered and funded the project. The KMD states that its goal with the time thief initiative is to improve and simplify, and not necessarily innovate, although the choice of partner in DIP is indicative of innovation as a desired outcome.

The distinction between innovation and improvement is somewhat tricky. Partly because it is a theoretical construct, but also due to the fact that innovation scholars operate with very broad definitions of innovation, and so does this thesis. Halvorsen et al (2005) defines innovation as "changes in behaviour" (Halvorsen et al. 2005, 2). A similar approach can be found in Hartley (2013) where innovation in public service is defined as "a change in the relationship between service providers and their users" (Hartley 2005, 27).

The question in this context is: does it actually matter? I will argue that in case 2, the distinction has some relevance. Exploring the difference of innovation and improvement in practice has brought me back to the "why not" that led to design commission in this case. If open-endedness and ambiguity is to be successful, the

project needs to be situated in a context that fosters change and not improvement. The context that spurred design commission in case 1 and 2 are not that different; both are driven by opportunity and personal connections to DIP. But there is one significant difference, the team in case 1 wanted a real change to happen and were willing to participate in pretty much anything, they were open to the design process because they were motivated by the prospect of implantation. In case 2 the staff where focused on incremental improvements and not making radical changes. There was also a lack of clarity as to what type of problems design was there to address, as such failing to motivate the staff. As van de Ven has demonstrated, opportunity may also trigger innovation, as non-problems may be a source of innovation (van de Ven 1986). However, in this case, design was utilised to improve on internal practices by making already established tools more available.

While there is not much that supports designs ability to create deep changes through the project "a little bit better every day", there seems to be some movement towards more user integration outside this project. The hospital has since this projects conclusion in 2016, planned for new activities with a higher degree of patient orientation in other areas of the organisation.

The success of the projects in case 1 and 3 point to the importance of a long gestation phase and high levels of maturity within the organisation. Service design is a resource demanding process tool. If it is to reach its full potential it needs to be situated in an environment that is geared towards change. In case 2, where the context was improvement, design could be seen as contributing to the gestation phase by demonstrating the potential of the patient perspective. The next section elaborates on what factors affect the utility of the patient perspective through the design process.

6.1.5 Patient perspective

The comparison of the three cases suggest that the patient can function as a way of managing attention by exposing the project teams to personal experiences with using their services and as a vehicle for "managing ideas into good currency". Van de Ven states that the process of bringing ideas into good currency is a collective endeavour as the development and implementation of new ideas require the commitment of several people (Van de Ven 1986, 4). By positioning the patient as an idea in the locus of the innovation process, their world, beliefs, experiences and expectations can be conveyed in a comprehensible way to the medical staff. The concept of the patient perspective allows the professionals to step out of their evidence- based reality and increase the understanding of the patient from a completely different vantage point. The concept of the patient perspective opens up a new world, a figure of speech and a whole set of new questions. As these ideas are acted upon the patient perspective can be transformed into new solutions. This process is supported and facilitated by the designers.

Rozenblum et al (2011) has demonstrated that there is a large gap, and severe blind spots in medical practitioners' awareness of patients' expectations of care. These blind spots are problematic both in terms of treatment, but also in terms of management. In order to achieve a high degree of patient satisfaction, the hospitals need to be able to identify and address the patient's expectations (Rozenblum et al. 2011). Healthcare providers' beliefs and attitudes towards patient's expectations, as well as knowing how to manage them, are not well understood. This point was made by one of the doctors in case 1. In her experience they were always "talking to patients". However, talking to patients is not necessarily the same as understanding and managing their expectations in a good way. In addition to providing a shock that triggers innovation, I argue that the designers are able to amplify and utilise the patient perspective in a way that closes the blind spots. As previously mentioned, all hospitals have some sort of patient satisfaction or involvement program, in addition to one-to one communication between patients and their

caregivers. But these efforts do not seem to either capture what is important for the patients, or perhaps more likely, they do not have sufficient means for impact in the organisation.

In a survey on hospitals ability to meet patients' expectations, Rozenblum et al (2011) found that the majority of clinicians stated that it is important to respond to patients' expectations in a structured way. They also believed that patients' expectations should be documented in the record. At the same time less than one-fifth of clinicians felt that they had adequate training to handle patients' expectations (Rozenblum et al. 2011, 25). This gap points to a necessity of developing better tools for patient involvement.

Closing the gap between patients' expectations and experience is a central theme in case 3 (SIV). Here, one of the major problems was to define what constitutes good care for the patients, their families, the hospital and paramedics, and finally for society at large whose interests the police represented. Perhaps not a blind spot in a sense that it represents unawareness, the project team did not have a full understanding of the entirety of their service from the patients view. Looking at every step of the journey (both metaphorically and practically speaking) allowed the team, which consisted of people with very different backgrounds and localities, to explore the problems from a common vantage point. This is in keeping with van de Ven's theory of personal confrontations with sources of problems and the utility of a shared and more extensive awareness of the problems at hand (Van de Ven 1986). The workshop has been consistently mentioned to be a positive activity, across all three cases. The next section will discuss the importance of the workshop.

The workshop

The design process is an exercise that legitimises talking about issues that people have not been able to address before. It allows for a discussion of failure, with a comfortable distance, through focusing on how the patient sees the service and not as a direct evaluation of the professionals' performance. Professionals are not experts in failure, and perhaps especially not medical professionals whose very job relies on them succeeding. Managing failure and errors corresponds with Agyris (1991) theories on double-loop learning in the change and innovation process. Where single-loop learning represents a more conventional monitoring of activity, double-loop learning involves a change in the criteria's of evaluation.

Highly skilled professionals, like medical doctors, tend to be very good at single-loop learning. Their professional backgrounds include acquiring academic credentials, mastering an intellectual discipline, and applying those to work on demanding tasks in their professional lives. According to Agyris (1991) their professional success is often keeping them from being good at double-loop learning, simply because they have limited experience with failure (Agyris 1991, 4). Failure is correlated with learning as the way we identify and correct errors are an important means of reflecting on and improving performance.

I have found the distinction between single-and double-loop learning relevant in explaining the properties of the workshop. In all three cases, the workshop has been described as a positive experience, a "table-turner" and as a powerful process tool. I argue that the workshop creates a space, both physically and emotionally where a different mode of reality and practice can occur. The separation from the normal routine is effective as it provides the professionals with distance required to question the established practice. Specifically, it allows them to be wrong.
It is difficult for people to reflect critically on their own work performance, especially in an environment that is hierarchical and strictly favours success.

Argyris (1991) states that being confronted with mistakes and being asked to learn from them is a difficult exercise that can provoke people to take a defensive stance. The designers corroborated this notion and expressed that having to deal with scepticism and defensiveness is a major part of their job.

One way the designers can deal with defensiveness is through their role as different. Bason paraphrases Parsons and Michlewski when he suggests that the designer can be seen as a "jester". A jester is an outsider on the inside, a sort of fool or clown who in a clumsy way tries to make sense of his surroundings.
I have come across traces of this role in my data collection. Not that any of the informants described the designers as fools, but they did describe how the designer asked very "simple" questions, and how they spent so much time explaining very "simple things" to them. The jester has the potential to be both harmless and entertaining, and the role and traits associated with the designer as jester can "open up spaces between the worlds" (Bason 2017, 101,102)
Michlewski links the role of the jester to being playful or mastering a systematic creativity. This mode of working encourages unexpected experimentation and exploration (Bason 2017, 103). The project manager in case 2 emphasises the role of playfulness and fun. This was a point made by both designers and workshop participants in case 2 and 3. The workshop was described as interesting and fun, and as a pleasant break from the usual mode of operation. The professionals also expressed a positive experience with having someone from the outside enter their workplace and bringing with them novel tools and concepts.

The workshop strengthens the designer's role as "jesters" which aid the process of double- loop learning. This also corresponds with Michlwski's theory on design attitudes (Michlewski 2008). The heart of the design practice is according to Michlewski, embracing experimentation and exploration. Working in this manner the designers utilise the power of humour, playfulness and bringing ideas to life. This mode of operation is a far cry from the corrective behaviour characterised by

single-loop learning, and is able to provide an environment that is more capable of idea generation. The context of the workshop is fun, different and separated and enables the professionals to feel more comfortable with being wrong and brainstorming. Returning to the definition of double- loop as a process of questioning established practices, the workshop can function as a facilitator of this learning process.

Questioning assumptions

Aside from the benefit the workshop has on the patient perspective in terms of learning, the patient can be a concept that allows for questioning of assumptions. Venturing on a design driven innovation process involves interaction with the design attitude of embracing uncertainty and ambiguity. Uncertainty and ambiguity are not traits usually valued by healthcare professionals, indicating that the contrast between to two worldviews needs to be managed. To what extent are the hospitals managers involved in the three case projects willing to participate in a process that is not- predetermined and the outcomes are unknown and uncertain?

The designers, professionals, and hospital project managers I have interviewed have stressed how resource demanding the design process is, as it requires participation over time from professionals who are very busy. Adding to this is the contrast in attitudes between the designer and the healthcare professionals. These two dimensions point to the need for a strong leadership in the projects. It also points to the leader's ability and willingness to engage with risk. In all three cases I have found that strong leadership is present, however the external factors affecting the innovation process differ and so does the role and output of leadership.

In case 1 (OUS) the project director was very willing to embrace the design process with all its ambiguity and open ends. However, it can be argued that the risk he was taking in practice was not that great, as the "Optimal care" report provided

him with a blueprint for the process. In this case the patient perspective becomes implementing rather than generating.

The project manager in case 2 (SØ) was both dedicated and involved. According to the designers the managers and the project director were essential in providing the designers with access and paving the way for the design process. As formerly mentioned the managers might not have had a clear idea of what exactly they were getting into, but demonstrated a dedication to making it work. The management's extensive knowledge on lean methods would pose somewhat of a hurdle for the designers and their more patient oriented tools. The prior engagement with the lean methodology seemed to have function as a benchmark in this case, something that design could be compared with and measured up against. While there are many similarities between the two methods, the insistence of placing design in the lean - toolbox is not indicative of embracing the uncertainty and ambiguity of the design process. The designers felt the unwillingness to lay down the lean tools were restricting and limiting their scope. The hospital management included the designers in a conference on improvement work in hospitals, as a means to provide them with more knowledge. When the new concepts the designers presented was found to include aspects of that was learned here, management were pleased.

In engaging the patient perspective, designs ability to question assumptions can play an important role. In case 2 the patient perspective is less dominant as they are not the focus of the project. Designs inherent ability for questioning assumptions can still be put in good use, although this requires more willingness to abandon the comfort of tested and treasured tools, than I have found to be the situation in case 2.

In case 3 the involvement and dedication from the project manager at the hospital is emphasised as a positive trait by the designers. However, I question whether the project managers unwillingness to "let the designers loose" is also somewhat

restricting. “Letting the designers loose” can be understood as an epitome for giving up control and taking a big risk by embracing the uncertainty and ambiguity the design process necessitates. The unwillingness to engage with this risk is of course understandable. As Djellal at al (2013) has pointed out the lack of competition in the public sector makes it less prone to engage with risk. Why should hospital mangers occupy themselves and their staff with resource demanding processes that may lead nowhere? And in this case possibly waste the time of police officers, the specialised care units and others? Turning to politicians and policy makers to answer these questions would most like likely result in a need for innovation and building a more robust and flexible healthcare system. The practical implications for the manager means carrying the burden of engaging with risk. In this context it is understandable that the PM is weary about giving the designers free range. However, the tight leash does have some practical implications. As described in the previous chapter in this case, the need to include oneself in all parts of the process is juxtaposed with loosing information. The PM fears that what is learned outside her presence will be lost to the organisation. This suggests little confidence in the designer’s ability to collect insight and synthesise their findings in a way that has value for the organisation.

This also implies that the act of appreciation in terms of whose valuations is the most dominant has not fully shifted in favour of the patients. If the idea of the new patient is to be realised in a profound way, as the policy documents suggest, the organisation will have to change in an equally profound way. This in turn means that the hospitals will have to listen to an uncensored patient experience and be willing to make changes based on this. It also implies letting the designer loose. However, as case 1 demonstrates, these type of changes need to be secured in the top management. The project directors “credit card trick” illustrates how important the management’s commitment was to this project. Practically speaking it secured that the proper mandates were given. In cases where the projects are spanning departments, clinics or even different authorities, effective leadership must be

included. Effective leadership in this context refers to the ability to implement changes on a larger scale. In case 1, the involvement of a member of the central management also served as a major motivation for the internal team as they knew that the changes they suggested would be implemented.

In summation, design may function as a shock that manages attention to new sources of ideas and triggering action. Design supports and facilitates the process of confrontation with blind spots or malfunctions in the service. Comparing the three cases has demonstrated the importance of the gestation phase in ensuring a certain level of maturity in the organisation. It also shows that the organisation and its management need to be motivated for making changes and not only improvements.

Taking the patient perspective is useful in facilitating the process of coming up with new concepts and solutions. In this process the workshop is beneficial as it creates a space and a discourse that allows for learning from failure and double-loop learning. Service design, and the patient perspective, allows for a questioning of assumptions about established practices. This questioning requires a willingness to engage with ambiguity and open ended-ness on behalf of the management. Engaging with risk is traditionally complicated in the context of healthcare and not all hospital managers are comfortable with this aspect of the process. While this is understandable, the type of process derived from a service design project, requires that a certain level of trust and actual space to create changes be granted.
This is also important in providing the designers with a realistic scope for the service innovation process, and mandates to make changes. As case 1 demonstrates, this can be done by including top management in all stages of the innovation process.

7 Concluding remarks

This thesis set out to explore the Governments principal idea that empowering patients through service design can be a vital source of innovation in the healthcare sector. In the national health plan and other policy documents, innovation is described as a necessary strategy in meeting the demographic changes and increasing requirements the healthcare system is facing. In this context the patient perspective is seen as a way of simultaneously cutting costs and increasing quality. A service tailored to patients needs is thought to be a more effective service, while at the same time offering higher patient satisfaction by inclusion.

The interest of the thesis has been twofold: fist by investigating what characterises the design driven innovation process in the context of healthcare, and secondly exploring in what manner design can function as a change agent and how the patient perspective is facilitated and utilised by this process. Through the approach of the comparative case study I have collected data from three different cases of projects that have engaged with service design in the field of specialised medical care. The comparative approach to the case study have allowed me to identify and describe the factors that affect the service innovation in process in these cases, and to determine what role design has played by comparing the similarities and differences across the cases.

The process perspective following the choice of van de Ven's framework on the problems with managing the innovation process, has led to an analysis of the design driven innovation process along three dimensions. These dimensions include: the motivation that led to design being commissioned and the type of problems design is meant to address; designs ability to function a change agent and finally how the patient perspective is utilised by the design process.

The discussion of the value of undertaking a design driven innovation process in the healthcare sector will to a certain extent be a question of how much or how far. How much have the services shifted from revolving around the requirements of the staff to being a matter of what the patients need? And how far do these changes reach?

Through the three cases that make up the empirical framework of this thesis, I have demonstrated that design as a method and tool for patient inclusion and innovation is both useful and demanding. It is useful in exploring the problem space, getting all stakeholders aboard and creating consensus. In this manner design can function as a shock, as a way of getting people to pay attention to sources for good ideas and for acting on the possibilities. It is simultaneously demanding, as it requires the time and commitment of all stakeholders over time. It is also demanding in terms of management and managing the process. While the design process, with its challenging attitudes and methods, requires a certain level of involvement by hospital managers, the designers still need to be granted enough space to be able to be effective. Having a strong management that is willing to participate in a process that is uncertain and open ended, and engage with risk is necessary.

Comparing the cases also suggest that designs ability to be a catalyst for change should be understood in regards to what extent the consequence of taking a true patient perspective is fully recognised. Insufficient maturity in the organisations to sustain this type of radical changes and the lack of top management anchoring restricts the scope of these types of projects, and effectively reduces the utility of service design.

The relevance of this thesis should be should be seen in light of the idea of patient empowerment as a source of innovation. One of the cases demonstrated the need to differentiate between improvements and innovation in the context of healthcare.

The practical distinctions between improvement and innovation may be incremental, underlined by the fact that many innovative efforts in in healthcare are labelled “modernisations” or “best practice”. For the hospitals ability to carry a design driven innovation process, the distinction matters as an organisation tuned into improvement differs from one geared toward innovation. This suggests that service design is not itself innovation in practice in all contexts.

The findings of this thesis suggest a more systematic review of the public programs aimed at increasing design driven innovation in the public sector. The DIP-program is no longer open to projects in the public sector as the #Stimulab program at the Agency for Public Management and eGovernment has taken over this practice (in cooperation with DOGA). This further development, and adjustments, of public programs aimed at service design in the public sector, suggests that the health authorities are continuing to pursue the strategy of the patient perspective as a source of innovation. If the patient perspective is to be realised on the large scale, as suggested by the national health plans, an in depth study of the effect of the publicly funded programs designed to secure the efficiency of this perspective seems appropriate.

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Appendix I Information and consent form

Background and purpose

Through my maser thesis at the centre for Innovation, Technology and Culture at the University of Oslo, I want to investigate how the use of service design affects service innovation at Norwegian hospitals.

The general purpose of this study is to increase understanding of the design driven innovation process in the context of healthcare.

The selection of participants is based on participation in, or experience with service innovation projects at a hospital.

Expected duration of research

The thesis will be finalized in the spring semester of 2018.

Participation in the study

Participation in this study involves a personal interview with the duration of approximately one hour. The focus of the interview will be on your part in and experience with one or several innovation projects. The interviewee is in no way obliged to participate in this study and may at any time withdraw from the study.

Usage of information

All personal information will be treated confidentially. No one will be able to access the data, as this will be store don a password protected personal computer and external hard drive. All names and file names will be coded.

If you wish to be anonymous, please cross the box below.

The result of this study will be published as a master thesis at the University of Oslo, including online accessibility.

If you are willing to participate in the study, please sign below.

If you have any questions in association with this consent form, or any comments or questions along the way, you are welcome to contact me at any time.

Best regards

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Confirmation of consent:

I confirm that I am familiar with the content and purpose of this study and am willing to participate.

Signature Place, Date

I wish to be anonymous ☐

Appendix II example of Interview guide

Interview guide for designer

Can you give a brief presentation of your professional profile?

a. Position
b. Background

c. You have participated in a innovation project at ……. Hospital.
d. What was this project about?
e. Who was involved?

The method:

a. Can you tell me a little bit about service design?
    a. What is a typical process?
    b. What is the designer's focus?
    c. What sets this method a part form other forms of consultancy?
b. Can you tell me a little bit about service design in the context of healthcare?
c. Were there any special circumstances regarding healthcare?
    a. If so, how do you work with these?
d. How did the project group react when you presented the process and your tools to them?
e. Where there any members of the internal project team that where especially important to you in the process?
f. Where there tools that were particularly useful in this process? Or tools that did not work at all?
g. How would you describe the collaboration within the project group?
h. How does design methodology affect collaboration in these types of processes, in your experience?
i. What was the result of this project?

Management

f. What is the hospital's stance on innovation, in your opinion?
g. What were their expectations to service design upon starting this project?
h. Did you communicate with the central management in this project?

Finally: is there anything you would like to add?

Appendix III example of Interview guide

Interview guide Hospital Doctor

1. Could you give a brief presentation of your professional background?
    a. Position at the hospital
    b. Background

2. Can you tell me a little bit about work in this clinic?
    a. What is your experience with innovation work?
    b. To what extent do you collaborate with other clinics or departments?

3. You have participated in a innovation project. Can you tell me a little bit about this project?
    a. How did it come about?
    b. What was it about?
    c. Who was involved?
    d. What was different about this project?
    e. How did you experience working in this project?

4. Can you describe the collaboration with the designers?
    a. Can you describe the first meeting?
    b. What did you make of the process?
        i. When it was first presented?
        ii. During the process?
    c. How did your colleagues respond?
        i. Did you talk about this project at other times?
        Did this change in any way during the process?

5. Patient perspective

a. Can you describe in what way the patients were included in this project?
b. Does this differ from past practice?
c. How did you, being a doctor, experience working with this perspective?
d. Did it affect collaboration in the group in any way?

6. Management
    a. What level of management was included in this project?
    b. What type of support did management give?
    c. How was the interest in this project at the hospital, from management and colleges?

7. Project results
    a. What was the result of this project?
    b. How were changes implemented?
    c. Has participation in this process caused any changes?
    d. Is there anything that could have been done differently in this project?
    e. What are your thoughts on service design in hospitals?

Finally: is there anything you would like to add?