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SCHOOL OF BUSINESS, ECONOMICS AND LAW

Swedish healthcare lean(ing) towards efficiency

A case study of Swedish public health centres

The Department of Business Administration

University of Gothenburg, School of Business, Economics and Law
Management Accounting, Master Thesis, spring 2013

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Acknowledgements

We would like to thank everyone involved in the process of writing this master thesis.

A special thanks goes to our tutors Mikael Cäker and Johan Åkesson who have supported and guided us throughout the process of this thesis.

We would like to give our deepest gratitude to the four health centres and the respondents. Without them, this thesis would not be possible.

Gothenburg 27th of May 2013

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Abstract

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Background: The last three decades the Swedish public sector has undergone major changes. In Sweden, several municipalities, governmental authorities and hospitals, have tried to rapidly adopt the lean concept over the past five years, glancing at the private sector. At the same time as the lean concept spreads throughout the public sector, the basic rules for financing of the Swedish primary care have changed. Consequently, the free choice of healthcare, nationally introduced in 2010, has made the health centres compete in a new way. Lean has presented examples of successful results in Swedish healthcare. However, several authors question the possibility to use lean in a public service context as there is a question whether the financing model in combination with the embracement of lean, really allow the health centres to be governed by the patients' needs.

Purpose: The research questions is investigated from an accountability perspective with the purpose to increase the understanding of Swedish public health centres' experience of lean, as well as examine the challenges of combining lean and the existing financing model.

Methodology: The thesis is built on a case study of four health centres within VGR, Västra Götalandsregionen. The primary data has been collected through semi-structured interviews with directors and employees at the four health centres.

Analysis and Conclusion: The health centres are subject to accountability to many different stakeholders, which creates a jumble of different accountability that employees need to take into consideration in their daily work, which may be hard to balance. The financing model sometimes affects strategic and operational decisions as accountability to the financing model, due to lack of resources, has been placed above accountability to lean. Lean seems to have potential to contribute to health centres, as many actions taken have led to positive outcome, but have come to focus on overall improvement such as improved meetings, communication and processes, rather than a more deeply rooted lean philosophy.

Key words: Lean, Healthcare, Health centre, Accountability, New Public Management, Public sector, Sweden, Management Accounting, Financing model, Efficiency

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1. Introduction

1.1 Background

The last three decades the Swedish public sector has undergone major changes (Hood, 1995) due to political and media pressure and the Swedish healthcare has many times been designated as an Achilles' heel. Attempts to rationalise as well as improve the efficiency and results of Swedish healthcare has led to major changes in management systems (Trädgårdh & Lindberg, 2004). The '*reduce waste and increase value*'-philosophy, lean, seems to be the new medicine, ready to cure a system sometimes referred as bleeding. But does lean, a philosophy built on the manufacturing industry in Japan, fit the government-funded healthcare in Sweden?

The term lean was coined in 1988. Quality engineer at Toyota-GM, John Krafcik, published the article "Triumph of the lean Production System" in the Sloan Management Review (Krafcik, 1988). Two years later the international bestseller book "The machine that changed the world" paved the way for the concept lean as a well-known set of tools to accomplish elimination of waste and improve perceived value while time and cost is reduced. The year was 1990 and the philosophy was derived from Toyota Production System and the manufacturing industry (Womack et al., 1990).

Today, more than twenty years later, the concept lean has spread like wildfire and the term is now widened to not only comprise the manufacturing industry, but also said to be applicable in all kinds of organisations, such as R&D departments, service industries and the public sector (Arlbjørn et. al., 2011). In Sweden, several municipalities, governmental authorities and hospitals, have tried to rapidly adopt the lean concept over the past five years, glancing at the private sector (Tillqvist, 2011). According to a survey, targeting directors of Swedish public hospitals, more than 90 percent of Swedish hospitals practice lean to some extent. At those hospitals, an average of 47 percent of the hospitals wards have implemented lean (Läkartidningen, nr. 39, 2011). Another study claims that in healthcare, a great deal of money is spent on unnecessary diagnostic testing, and that lean, through measures and an awareness mindset, managed to decrease those expenditures (Vegting et al., 2012).

1.2 Problem discussion

At the same time as the lean concept spreads throughout the public sector, the basic rules for financing of the Swedish primary care have changed. Since 1990 there has been clear political ambitions to strengthen the patients' position and possibility to choose healthcare provider (SOU 2008:127). On January 1st 2010, a free choice of healthcare was introduced throughout of Sweden, which means that everyone above 16 years old are allowed to freely choose primary care and thus health centre within the county council. The choice includes both

private and public controlled health centres. The free choice of health centre means that the citizens' position is strengthened as the financing to the health centre follows the citizens' choice of centre (VGR, 2009). In the proposition of the free choice of healthcare the government stresses *"By the fact that money follows the patient, an increased freedom of choice also help to stimulate quality development, because large groups of patients will seek out the institution that has the best quality. Thereby competition is created that encourages the healthcare stakeholders to improve quality and accessibility"* (Prop. 2008/09:74). The objectives of the initiative of the free choice of healthcare are set differently in the different country councils; however a shared objective is that the patients' needs should govern the health centres (Socialstyrelsen, 2010, February 12).

Consequently, the free choice of healthcare has made the health centres compete in a new way, with a push for better service and quality (VGR, 2012). Consequently, this means that also the public sector needs to be more efficient in order to be competitive. Since the free choice of healthcare was introduced, there has been an increased focus on gaining revenues in order to stay competitive, which has been a reason why an increased number of health centres have been implementing lean ever since (Development Group of VGR, interview, 2013-02-08). It is argued that, *'companies rarely pursue lean unless they are feeling some pain'* (Lebow, 1999). Furthermore, this push to adopt lean has presented examples of successful results in Swedish healthcare such as timesavings, cost reductions, productivity and quality improvements (Mazzocato et. al., 2010).

However, several authors question the possibility to use lean in a public service context (Radnor et al., 2012; Radnor & Osborne, 2012; Young & McClean, 2008). Innovationsrådet, (2012) highlights that lean needs to be adjusted to the public sector, which is driven by needs and not demand. Hence, they point out that public services are mostly tax-funded, which limits the possibility to supply services based on the consumers' needs. Moreover, Zaremba (2013, February 17) has during the past spring presented a series of articles criticising and pointing to the consequences of the reform of Swedish healthcare, comprising the financing system of Swedish healthcare and the embracement of management philosophies like lean, which goes under the umbrella name New Public Management. The article series has also been assembled in a book, wherein the political scientists Ahlbäck and Widmalm emphasise that Zaremba's criticism correspond with international research (Axelsson, 2013, April 29). As healthcare services, diagnoses and tests for quality indicators are priced differently, health centres have come to focus intently on which diagnoses and tests are the most beneficial to them. By such a system, the politicians are to help the doctors prioritise (Zaremba, 2013, February 17). Although Zaremba (2013, February 17) enunciate: *"For the first time in history laypeople assume their right to tell doctors which patient is more important than the other, how doctors are to use their time, and – in fact- what diagnoses are most welcome"*. Zaremba (2013, February 25) does also argue that comprehensive quality work with increased requirement of registering and documentation, reduce time for personal interaction and engagement.

There is also another threat to the feasibility of using lean in public service, where Swedish healthcare specifically is addressed. This has to do with the many values and requirements

that healthcare has to consider (Helgesson, 2012), which also is highlighted in Zarembas (2013, February 17; 2013, February 25) articles. The healthcare system is characterised by multiple control, which means that specific care activities receive a variety of control signals from one or several sources. When there is no clear superior principle individual judgements are made, due to incompatible signals, which may be in contradiction with the attempts to govern the organisation (Helgesson, 2012) e.g. through lean initiative.

In contrast to Zarembas criticism to NPM, several actual examples display fantastic results of lean in public sector and healthcare, where both patients and employees have benefited through faster care and a better working environment. When organisations impose doctors and healthcare professionals to devaluate the patients' needs in the name of efficiency, it cannot be due to lean, as lean strongly emphasises citizen, patient and customer focus (Lomberg, 2013, February 21). Also another critic to Zaremba point to the importance to not neglect the progress the Swedish healthcare has made the last 20 years with radical improvements for almost all patient groups, being one of the ultimate in international comparisons (Molin, 2013, April 7). Molin (2013, April 7) stresses that all economic control systems have unintended effects, and of course these do have to be reviewed; however it is wrong to criticise the whole healthcare system based on details without seeing the whole picture.

Yet, Zaremba (2013, February 17) emphasises that the present system puts pressure on the doctors to study the price list in order to secure the revenues. Hence, there is a question whether the financing model in combination with the embracement of management philosophies like lean that the Swedish healthcare has undertaken in order to cope with the increased competition and demand for efficiency, really allow the health centres to be governed by the patients' needs. And if so, how is lean perceived to contribute to the health centres.

This study is of relevance, not least because issues related to the Swedish healthcare and welfare system is of great public interest and in everyone's concern. It is also important because public healthcare, not least primary care, needs to find new ways of improving the organisations in order to improve provided care and simultaneously stay competitive, as well as improving the internal working conditions. Furthermore, research in the field today gives meagre answers about effects in healthcare. Of these studies, many are not particularly scientific and few of them seem to have a clear scientific research methodology and structure. Also, many of these studies are incompletely reported (Läkartidningen, nr 15, 2010; Mazzocato et al., 2010).

1.3 Problem statement

On the basis of the background and problem discussion above, it is of interest to investigate the following research questions:

- How do employees and directors perceive lean to contribute at Swedish public health centres?
- How do employees and directors at Swedish public health centres perceive the challenges of working according to lean in parallel with the existing financing model?

1.4 Purpose

We investigate our research questions from an accountability perspective with the purpose to increase the understanding of Swedish public health centres' experience of lean, as well as examine the challenges of combining lean and the existing financing model. This will be done based on a case study of four health centres. We hope that this thesis will generate useful knowledge, especially for those involved in organisational and managerial questions in the healthcare sector, to see if incentives of implementing lean may be strengthened. Furthermore, this thesis is also relevant for those considering implementing, as well as those already practicing lean.

1.5 Delimitation

As lean has been implemented parallel to other continuous actions of improvement, it is not always possible to make a clear separation of those. Some of the interviewed health centres describe the changes more as a systematic effort of improvement, rather than using the term lean, even though the methods and tools are the same (Development Group of VGR, interview, 2013-02-08). We also want to make the reader aware of that the empirical study is done on a limited number of health centres and the findings and conclusions drawn must not be seen as generalisable for all Swedish health centres.

2. Methodology

This section describes how this thesis has been preceded. First, the background to the chosen research field is presented, followed by the research design used in order to investigate the research field. Then, we explain the criteria and the method used for selection of the organisations investigated. Further, the data collection is presented in order to clarify the method used for gathering of the empirical data, as well as the building of the literature review. Then, details of the interviews are displayed and finally, we describe what we have done in order to increase the reliability of this thesis.

2.1 Selection of research field

The reason why this thesis investigates lean at Swedish health centres has its roots in a master course in Operational Management Accounting where a minor study at a health centre, led to interesting insights that we wanted to investigate more deeply. This thesis started with a brief study of the lean literature; however in order to build a feasible and up to date research question we wanted insights from people experienced in the field. Therefore, we met with a lean consultant, for a discussion about the research field. After consideration of the insights from a private consultant, we also wanted the viewpoint from the public sector; consequently we met with the Development Group of VGR, who support the lean work at health centres within VGR, for further discussion of the research field. After evaluation of these insights, along with further and a more thoroughly study of the lean literature forming a literature review, the research field was narrowed and a research question was formulated. In order to test the feasibility of this research question we conducted a pilot study at one health centre, which gave insights that made us slightly change direction within the chosen research field, and hence the present research question was formulated.

2.2 Selection of research design

In order to investigate the chosen research field, this thesis uses a qualitative research method. According to Blumberg (2009) there are factors that need to be taken into consideration when deciding to use a qualitative or quantitative research method, such as the research problem, the research objective and what kind of information the researchers already have. A qualitative research method is preferred in this thesis because of the complexity of the control of the organisations that will be investigated, because this thesis investigates perception of employees, and also because a qualitative method will give a deeper understanding of the problem investigated.

Further, the type of qualitative study that was performed is a case study. It is claimed that when trying to study a contemporary phenomenon within its real-life context, a case study should be performed (Yin, 2009). The holistic view in a case study makes it possible to

authenticate evidence and does not risk missing any data, whilst it also can give insights into why processes work as they do (Yin, 2009).

2.3 Selection of organisations

Swedish primary care is controlled from a regional level, and thus also the financing model; which means there may be differences between regions. Hence, when investigating how employees and directors perceive lean to contribute to the health centres and how they perceive the challenges of working according to lean in parallel with the existing financing model, it is preferred to investigate health centres within the same region. Further, as our main criteria is to study health centres which have passed the implementing phase and are now practicing lean to some extent, all health centres studied except one of them, are within the Gothenburg area of the region Västra Götaland (VGR). The exception mentioned, is a health centre outside Gothenburg but within VGR, which has practiced lean significantly longer than the other health centres and therefore may contribute to other valuable experiences and insights worth comparing and analysing. As the public primary care in Gothenburg is seen as a pioneer and historically has been in the foreground when it comes to lean in Swedish primary care (Development Group of VGR, interview, 2013-02-08), the selection is relevant to our purpose. Further, even though private and public health centres within the region have the same financing model, there have been debates as to whether they compete under exactly the same conditions (Development Group of VGR, interview, 2013-02-08); something which further motivated us to keep the selection to public health centres within VGR.

All health centres studied fulfill our three criteria:

- 1 Practicing lean to some extent
- 2 Public health centre
- 3 Located within the region of Västra Götaland

The sampling of health centres is made based on the three criteria mentioned above, although the health centres are beyond those criteria not further screened. Thus, no further background information or statistical data, such as size or financial conditions, are checked. For us to do the sampling without looking into any details about the health centres, the health centres have been selected through a discussion with the Development Group at VGR, based on the above-mentioned criteria. We decided to perform interviews at four different health centres because one will not give different viewpoints; and as this thesis uses a qualitative method it seeks to build an analysis based on details rather than a statistical explanation. We have chosen for the centres to be anonymous in order to get answers also on questions concerning vulnerable areas; therefore the centres are in this thesis named A, B, C and D.

Moreover, when we first started this thesis, we had a focus on exclusively investigating how the financial model affects health centres practicing lean. For such a study the analysis object is the health centres contra VGR, as they set the financing model. Due to this, we decided to perform interviews with the director at four health centres, who has the overall financial knowledge of the centre. However, along with the progress of the thesis, the research field

changed focus from exclusively concern the financing model, to also consider the perceptions of the employees as well as their perception of lean. This in turn means that the analysis object changed to instead become the health centre and its internal processes. In order to get perceptions also from the employees, at each health centre, additional interviews were performed with two employees with different professions. Though, we want to make the reader aware of that health centre C only could give an interview with only one employee, due to great time constraints.

2.4 Data collection

The data collection in this thesis consists of both primary and secondary data. In this case study interviews constitute the primary data, which according to Blumberg (2011) has its greatest advantage in depth of the information and the ability to capture details. Semi-structured interviews are a balance between structured and unstructured interviews that combine the advantage of the structured interviews' comparability and the unstructured interviews' explorative character (Blumberg, 2011). As our case study refers to a wide-ranging problem area, semi-structured interviews are particularly useful, as we need to detect and identify the issues relevant to understanding the situation, which include respondents' viewpoint regarding situations relevant to the research problem (Blumberg, 2011).

As a pilot study may help to refine the data collection plans regarding both the content of the data and its procedures (Yin, 2009), a pre-interview was conducted with the director at one of the health centres. The research questions in a pilot study can be much broader and less focused than the final interviews as it may also function as a source of considerable insight into basic issues and provides information about relevant field questions (Yin, 2009). As the information gathered in the interview was used in parallel with an ongoing review of relevant literature, the final research design benefit both from prevailing theories and by the set of empirical findings (Yin, 2009); hence the pre-interview formed a base for the rest of the interviews. The questionnaire used for the pre-interview was based on a skeleton of the definitive theoretical framework, nonetheless since a semi-structured interview method was used; the interview gave answers beyond the questions asked. Thus, when compared with the interviews with the directors at the other health centres, which used a questionnaire based on the definitive theoretical framework, there were only a few unanswered questions. In order for the pre-interview to be valid as an interview comparable to the others, the director was therefore contacted a second time for a shorter additional telephone interview.

After the interviews with the directors of the four different health centres, the answers formed a base of interesting areas at each one of the centres, which in turn formed the base of four different questionnaires used for interviews with the employees. Moreover, in order to get an overall picture of the research field, the interviews were supplemented with secondary data such as policy documents and the present financing model.

2.4.1 Interview summary

Date	Health centre	Code	Profession	Interview	Duration
2013-01-30	Lean consultant			Preparing interview	1 hr
2013-02-08	Development group			Preparing interview	1 hr
2013-02-25	A	DiA	Director	Pilot study	2 hr
2013-03-21	B	DiB	Director	Full interview	1hr 45
2013-03-26	C	DiC	Director	Full interview	1hr 45
2013-04-03	D	DiD	Director	Full interview	2 hr
2013-04-09	A	DiA	Director	Additional interview	20 min
2013-04-25	A	NuA	District nurse	Full interview	20 min
2013-04-25	A	DoA	Doctor	Full interview	25 min
2013-04-30	B	NuB	Nurse	Full interview	20 min
2013-04-30	B	PsB	Psychologist	Full interview	20 min
2013-05-08	C	NuC	District nurse	Telephone interview	25 min
2013-04-30	D	NuD	Nurse	Full interview	22 min
2013-04-30	D	DoD	Doctor	Full interview	35 min

2.5 Reliability

A high reliability means that the method aims for the study to be able to be repeated with consistent results (Crosby et al., 2006). In order to increase the reliability of this thesis, the interview questions are based on the theoretical framework, which in turn, is based on a thorough screening of well-known authors and theories of lean, through reliable databases such as Business Source Premier, LIBRIS, Scopus and Web of Science. The questions were sent to the respondents before the interview in order to make them aware of the question areas in advance. In order to assure the respondents understood the questions, the terminology from the theoretical framework was adapted to suit the respondents. To further increase the reliability the questionnaires were extended with some explanations and examples of the questions. These were used when the respondent did not fully understand the questions, in pursuit of the interviews to be held under the same conditions, giving the same potential to answer the questions. To further limit the interpretation and distortion of the performed interviews, they were recorded and transcribed directly the day after the interview was held.

3. Literature review

This section consists of theory relevant in order to understand the problem of this thesis. First, the theory of accountability is described, which is of useful knowledge in order to understand the conflicts that may occur due to incompatible signals of control and accounting. Then, there is theory of New Public Management, which will provide the reader information about the changes towards increased efficiency that the Swedish public sector has gone through for the last three decades. Further, two theories which have their origin in New Public Management are described. The first one is lean; a management philosophy that lately has been thoroughly implemented in the Swedish public sector. The theory of lean is then narrowed down into a four-perspective model, constituting of what the authors claim to be determinant for a successful lean work. The second, which also make the last part of the theory section, is marketisation of the public sector, and thus theory of the intended and unintended effects of different financing models is presented.

3.1 Accountability

Accountability is a term that has become increasingly frequent in managerial contexts within both the private and public sectors (Munro & Mouritsen, 1996). Accountability has come to be understood in terms of *'the giving and demanding of reasons for conduct'* (Roberts & Scapens, 1985) and *'the willingness and ability to explain and justify one's acts to self and others'* (Munro and Hatherly, 1993), i.e. accountability can be seen as the requirement to account and to be held responsible for one's actions and performances (Roberts, 1991).

Individualised accountability is a form of disciplinary power, automatically emergence through our upbringing and previous experiences and education, as a taken for granted mentality of discipline. This kind of accountability is not only comprised to working environment but is clearly reflected, even as early as in the recruiting process, where personal and professional qualities are attempted to be scanned, which becomes a basis for future expectations of the employee (Roberts, 1991). The fact that certain parties have the opportunity to hold others accountable for their actions is derived from the relationship between the parties where power enables accountability (Roberts & Scapens, 1985). Roberts and Scapens (1985) argue that this is a way to enforce actions expected because otherwise it will have consequences for the part that deviates from the expected. Further, hierarchical accountability is created when the individual is putting itself in relation to the objective standards of expected benefit. This can happen within the organisation and by external market mechanism. These standards becomes the yardstick which we judge and compare ourselves to others. Therefore, information through an accounting system typically plays a central role, as it becomes a way for others to view, judge and compare individual and group performance. A damaging unintended effect of individual accountability is that they promote self-absorption rather than an awareness of mutually dependence (Roberts, 2001).

In contrast, social accountability is built on social norms and may be seen as consensus among parties, of what can be counted as good manner and acceptable performance (Sinclair, 1995). Social activities at work, such as small talk and coffee breaks create an official organisational reality, which also create loyalties and ties. Such relations, as well as the organizational structure, also form hierarchies (Roberts, 1991). Roberts (1991) argue that hierarchical accountability is necessary for the organisational order but he also stresses the importance of social accountability as it fosters and refines our mutually understanding, which is an important source of learning. Hence, it may allow employees, instead of only managers, to contribute to strategic thinking in a way that adds the financial objectives with a wider set of perceived corporate responsibilities (Roberts, 2001). Social accountability can support individual forms of accountability, such as hierarchical accountability and be due to a conflict or split. The consequences of this split are both moral and strategic. These may appear in the form of social inequalities, damage in pursuit of competitive advantage and difficulties in integrating collective actions on the basis of highly individualized employees. It may also lead to tensions between the individual's different roles (Roberts, 1991).

Hence accounting has been argued to contribute to creating and forming the organizational reality, rather than objectively mirror the organisation's result and reality (Roberts, 1991). Roberts (2001) mentions an example where introduced accountability may contribute to mixed signals, as new measures in an accounting system e.g. concerning level of education, can be seen as the management valuing the importance of educational level in the organisation, but it also gives the employees the signal that further education is justified and encouraged (Roberts, 2001). Munro and Mouritsen (1996) argue that what managers consider they need to do, may conflict to what other stakeholders consider most important. These types of conflicts are a central part of the economic system and the market as a whole (Munro & Mouritsen, 1996). Further, several authors describe a scenario where the complexity in this accountability relationship may hinder managers and employees from balancing the matching of all parties' interests, as the requirements and purposes of the groups may not always be compatible (Munro and Mouritsen, 1996; Checkland et al., 2004). The same applies to today's increased focus on process orientation, which has also added complexity to hierarchical accountability, as a responsibility for both financial performance and process-related aspects (Olve et al., 1999).

As healthcare is publicly financed, doctors will be held accountable to politicians for responsible use of that money and simultaneously satisfy and fulfill the individual patients' needs, which may conflict with each other. Similarly, accountability to society, in terms of improved public health, which might require some necessity of digging in areas such as vaccination or smoking, might conflict with the accountability to individuals, i.e. the doctor's personal motto of what to meddle in. Summarising, requirements of an efficient use of resources may put pressure on employees to provide care they do not feel is satisfactory for the patient. Although in a system where the patient pays, there is a risk unnecessary procedures may be performed as a way of maximising the income (Checkland et al., 2004).

The hierarchical control within an organization such as a county council represents only a small proportion of all control signals that affect an individual business within healthcare, such as a health centre. The source of hierarchical accountability may be authorities such as treatment guidelines issued by the National Board of Health or pharmaceutical approvals issued from the Medical Products Agency. Furthermore, there are both mandatory rules and softer guidelines regarding what different professions can and should be doing. When none of these control signals or principles is overreaching another conflicting signal, individual judgements are made, which means healthcare activities may be in contraction with some attempts to govern the organisation (Helgesson, 2012). Some people in the field, e.g. Schwartz and Sharpe (2010), argue that financial incentives overlook the importance of practical grounded wisdom as a way of dealing with various forms of control. This means that we might expect many well-grounded decisions, in healthcare, which however is in contraction to some attempts to govern (Helgeson, 2012).

3.2 New Public Management

For the last three decades there has been an attempt to reform the Swedish public sector. This has been done in the reflection of an ideological shift, highlighted by Hood (1991; 1995), in how to govern and control the public sector, taking influences from the private sector. This reform, called New Public Management (NPM) has penetrated the public sector with the goal of making the public organisations more economical focused and more efficient, thus marketisation, competition and managerialism have seemed to be the base of guidance in order to achieve this (Liff, 2011). In light of NPM, the public sector has undergone changes like decentralisation of responsibility, privatisation, creation of competitive profit centres and a focus set on the customer (Liff, 2011). One reason for the emergence of NPM is claimed to be the change in the way we look at control, accounting and evaluation (Hood, 1995) while another highlighted reason is the pressure on fiscal restraint (Power, 1999).

The reforms of NPM in the healthcare sector implies a movement towards customised care, involving reduced waiting times, protection of the patients' rights and privacy, increased transparency of the treatment and the forming of a multi-professional team around the patient's needs. The goal is that different professions within and between the organisations cooperate based on their own unique competence, which can create more customer orientation (Liff, 2011).

Hood (1995) summarises seven different dimensions of change related to NPM, where the first four relate to the issue of how far public organising and methods of accountability should be distinct from the private sector; and the last three dimensions relate to what extent managerial and professional discretion should be enclosed by explicit standards and rules. The first dimension comprises a shift to corporatisation, which means greater disaggregation of the public organisations, creating separately managed public sector units and cost centres. The second is a greater competition both between the public and private sector, but also within the public sector. The third is a greater use of management practices influenced by the private

sector (Hood, 1995) regarding anything from employee and payment policies to models affecting the whole organisation (Hasselbladh et al., 2008). The fourth is increased cost awareness of public services, meaning a more prudent use of resources. The fifth is a move towards '*hands on management*', meaning more active control by visible top managers using discretionary power. The sixth is a move to use more explicit and measurable standards (Hood, 1995). The seventh and last dimension is an attempt to control public organisation according to pre-set output measures (Hood, 1995) with a focus on the customer and results (Hasselbladh et al., 2008). Hood (1995) stresses that there is no necessity to make all these dimensions of change at once, thus there are many variations of change documented from a study of the OECD (The Organisation for Economic Co-operation and Development) countries during the 1980s. Based on this study, Sweden was a country with high NPM emphasis, which is notable as the other high NPM countries are English speaking and all countries with low NPM emphasis are non-english speaking. The other high NPM countries during the time are Canada, U.K., Australia and New Zealand (Hood, 1995). The latter three are also by Hasselblad et al. (2008) highlighted as the countries where NPM most strongly has set root. The Anglo-Saxon structure of the public sector in those countries differ from the nordic, as municipalities and county councils with their own political assemblies and taxation right has no equivalent in the Anglo-Saxon countries. In those countries NPM has been a new form of politics within an integrated and centrally controlled public sector, whereas it has been more complex in the Nordic countries due to the somewhat decentralised control through the municipalities (Hasselbladh et al., 2008).

When NPM was introduced in Sweden it was loaded with positive visions and pictured as a necessary and adequate modernisation (Hasselbladh et al., 2008). One of the sectors where NPM was introduced is the healthcare sector, with the intention to increase efficiency for service production (Siverbo, 2004). It is difficult to estimate to what extent NPM has led to new methods and structures in Sweden; though, the public sector now has a decentralised budget responsibility and economic evaluation has become a part of the daily work. Since the early 1990s there has been a constant search of costs in form of a detailed cost accounting in combination with a stricter budget discipline. Market-oriented thinking has led to new structures with divisions of purchaser and provider within municipalities and county councils and emphasis on the consumer as the customer of public services. With such emphasis on the consumer as the customer, the 1990s reform stressed that the purchasers, constituting of politicians, should confine themselves to set goals, make orders of services and evaluate the services and the results, but they should keep away from poking in the daily operations. Control should instead of poking in the daily operations, be created by ordering the right services, based on the consumers' needs (Hasselbladh et al., 2008).

Further, there are also indirect consequences of the management accounting introduced in light of NPM. Hasselbladh et al. (2008) stresses that management accounting of an organisation wherein there are different organisations requires measures outside its specific organisational context, which leads to an evaluation of measures that are not specific for the organisation. Also Liff (2011) highlights similar consequences. He points out that the monitoring and setting of goals have been affected by identified control problems defined in

general rather than professional terms, resulting in efforts of administrative functions, data systems and economic measures, without any consideration of the complexity of the operational work.

3.2.1 Lean principles and models

Lean as a philosophy and concept has developed over time, from manufacturing to service organisations, from focusing on waste and cost reduction to also include customer value (Innovationsrådet, 2012). In order to reach an answer to the research questions of this thesis, the basic theories of lean need to be explored. Though many have questioned a philosophy developed in car manufacturing to be applicable in healthcare, others (Miller, 2005; Spear, 2005) argue that lean can be translated to healthcare. The lean philosophy is applicable in any industry as it is about improving processes, and healthcare above all, is flooding of processes (Miller, 2005). Examples show how lean has been used successfully in healthcare, with improvements like streamlined activities, reduced cost and improved quality and time delivery of services and products (Spear, 2005; Miller, 2005; Mazzocato et. al., 2012).

The well-known researchers in the lean field, Womack and Jones, 1996 presented lean as a philosophy to banish waste and create wealth and lasting value in any organisation. Although their principles of lean have been questioned in healthcare, the authors stress that lean thinking, compared to the earlier commonly used system in healthcare, conventional thinking, puts the patient in the foreground and not the organisation. The idea is to specify value, create a value stream of value adding activities and thereby remove waste. In order to adapt the lean principles successfully, they need to be supported by leaders promoting a culture of lean thinking (Womack & Jones, 2003).

Moreover, as public services are mostly tax funded, the consumer and the purchaser are different and hence may have different interests and values (Innovationsrådet, 2012). In addition, a study of British healthcare emphasises how the disunited view of how customers value healthcare makes customer demand as a driver of lean very complex (Young & McClean, 2008). Consequently due to the confusion as to who the customer of healthcare is, it is specifically important to determine the patient as the customer of healthcare. It has taken healthcare longer than other sectors to make this determination, which has led to processes driven by internal customers of healthcare; physicians, hospitals, insurers, government and payers (Miller, 2005; Graban, 2008). Also, the fact that public services are mostly tax-funded, limits the possibility to supply services based on the consumers' needs. Politicians must strike a balance between the needs of the citizens, against their will to pay taxes for public services, and the costs of public services. This means that it will never be possible to fully match offered services with users' needs (Innovationsrådet, 2012).

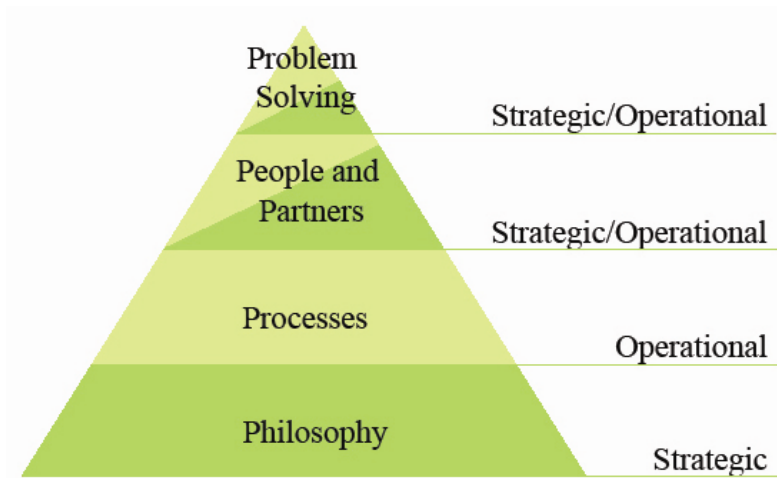
While Womack and Jones' principles of lean are said to be more of a technical description of lean, another well-known author discussing lean, Jeffrey Liker, focuses on soft values to a greater extent (Innovationsrådet, 2012). Hence, Liker's (2004) principles of lean need to be explored. Liker has, after hundreds of hours of research and interviews with 40 managers at

Toyota's all departments, identified key principles that drive techniques and tools of Toyota Production System and their management in general. These principles were originally developed for shop floor but are also said to be applicable in the service industry. The principles can be divided into four categories; *long term philosophy, the right process will produce the right results, add value to the organisation by developing your people and partners* and *continuously solving root problems drives organisational learning*. Further all four categories of lean are essential for creating a lean organisation. Supporting tools like standardised work, pull systems and error proofing are all essential for creating a process flow, but the tools and techniques are not the main key to successful lean (Liker, 2004). Instead what is important is to continuously invest in people, management commitment and to build a culture of continuous improvement; hence there is a difference in lean tools and lean philosophy (Brandt, 2013; Liker, 2004).

As Womack and Jones (2003) and Liker (2004), all have tried to design and replicate those principles that has led to Toyota's success and the cornerstones in the lean concept, the lean principles of the researchers Spear and Bowen (1999), give another point of view, trying to generally explain how and why lean may work, through four rules (Mazzocato et. al., 2012). These rules are: *standardisation, connecting people, achieving continuous flow* and *problem solving with management involvement* (Spear & Bowen, 1999) and; even though these rules have been applied in a context with little in common with healthcare, the point is that succeeding organisations, no matter industry, have specified many aspects of their work that allows problems to be identified and followed by continuous learning and improvement (Spear & Schmidhofer, 2005).

The four rules of Spear and Bowen (1999) were used as a theoretical analysing model of an extensive Swedish empirical study, conducted at Astrid Lindgren's Children's Hospital, aiming to investigate the results of lean implementation. The study displayed 19-24 per cent shorter waiting and lead times, as a result of two years work in accordance with the lean philosophy (Mazzocato et. al., 2012). The result was achieved because they standardised work and managed to reduce ambiguity, and also because they connected people who were dependent on one another, which created an uninterrupted flow through the processes and gave the employees greater empowerment to investigate and solve problems.

3.2.2 The four-perspective model



Pyramid of determinant perspectives for succesful lean, inspired by Liker (2004)

The four perspectives of lean, highlighted by Liker (2004), are pictured in the pyramid above. In this model, these perspectives can be seen as either strategic or operational, but this distinction is difficult to make in the two perspectives People and Partners and Problem solving and can thus be seen as both.

3.2.2.1 The importance of including all perspectives

“...tools and techniques are no secret weapon for transforming a business. Toyota’s continued success at implementing these tool stems from a deeper business philosophy based on its understanding of people and human motivation.” (Liker, 2004)

In order to investigate the employees’ and directors’ perception of lean to contribute to Swedish public health centres, it is essential to investigate lean beyond the processes of an organisation. Most companies work with lean as a way of creating process flow; by adopting supporting tools like standardised work and error proofing, one can enable such flow, but the tools and techniques do not by themselves carry successful lean organisations. Without continuous investment in people and management commitment to build a culture of continuous improvement, this improvement will not be sustainable throughout the organisation, hence there is a difference in lean tools and lean philosophy and this distinction is not to be mistaken (Liker, 2004). As lean is not only about eliminating waste, it is important to have an overall focus, rather than look at the parts separately. Exclusively focusing on eliminating waste may result in maximisation of efficiency in one field but at the expense of another, which means the waste is just shifting from one field to another, instead of optimising the whole organisation (Rother, 2010). In line with this reasoning, Brandt (2013) emphasises that improvements, in one field must not lead to deterioration in another field, resulting in a zero sum game.

A review of the lean philosophy support the hypothesis that lean seem to occur on different levels, and claims that some organisations only adopt lean on an operational level consisting of a set of tools, whilst others manage to understand lean as a strategic philosophy (Hines et al., 2004).

3.2.2.2 Philosophy

The core of lean is to create an organisation where its mission is always put first. This mission and common purpose must replace short-term decision-making, which conversely means that all management decisions should be based on a long-term philosophy, even at the expense of short-term financial goals. For instance, for the people working at Toyota the purpose is greater than earning a paycheck (Liker, 2004). The author further states that this principle is the foundation of all other principles and the missing element in most organisations trying to replicate Toyota's success, as they suffer from different types of short-term myopia. Even though the cost-consciousness is a great priority at Toyota, cost reduction is not an underlying principle that drives decisions, and he points to the examples that Toyota would never cut employees because of a temporary downturn in sales, as it is not consistent with the way of achieving their mission. The only reason the philosophies of manufacturing, investments and managing of people would change is if there is a fundamental shift in the world that threatens its long-term survival (Liker, 2004). For lean to be understood and to set root in an organisation, it needs commitment from managers at the very top of the organisation (Brandt, 2013). In order to help staff in a healthcare organisation to embrace lean, organisational leaders must create a clear vision and guide them to the right choices (Miller, 2005). Employees need to be made aware of the reason for the lean implementation, what it means for their work role and what outcomes to expect. Lebow (1999) argues that '*companies rarely pursue lean unless they are feeling some pain*'. In contrast, Hines et. al. (2010) stress that a change towards a lean behavior have to start with beliefs in the values of the organization; you need to believe that you have the necessary skills, competencies and resources to make the change possible (Hines et al. 2010).

The ability for an organisation to focus on long time objectives is also highly dependent on the ownership structure and how the organisation is financed. The pressure to present good quarterly financial numbers may oppose the long-term decision-making. It may therefore be easier to work in accordance with lean in family-owned organisations, such as Toyota (Liker, 2004).

3.2.2.3 Processes

As Liker (2004) emphasises the importance of building the organisation on a long-term philosophy, the right processes ensure continuous flow and right results. Lean helps improve the delivery process of healthcare, as it provides the best way to accomplish processes that support safe, high quality and efficient healthcare (Graban, 2008).

A central aspect of lean is to create a continuous process flow, through redesigning the work processes, to bring problems to the surface (Liker, 2004). Visualisation of the flow itself, by using simple visual indicators or visual systems at the work place (Liker, 2004), e.g. through value stream mapping (Brandt, 2013), will also help detect problems or deviations from standard conditions (Spear & Bowen, 1999). The same applies to assistance. This requires transparency and that no problems remain hidden in the first place, as it may lead to problems piled up and difficulties finding the root causes (Spear & Bowen, 1999). Flow does not necessarily have to involve processes, but also material and information. Therefore it is important to have technology that fully supports the people and processes and not the other way around (Liker, 2004). To manage continuous flow, it is essential to level out workload, to avoid overburden of people and machines, and this is just as important as eliminating waste. In healthcare this can be compared with the doctor scheduling the patient's visits (Liker, 2004). Many processes in healthcare do have spontaneous variations in volume and duration and this is a challenge to manage (Brandt, 2013). Leveling out workload may be achieved through the possibility to flex the number of employees or competencies when needed, working in projects or practicing different scheduling (Brandt, 2013; Liker, 2004). Further, it is important to have the right approach when problems arise in a process. If problems occur in the activities or processes, the principle of lean is to stop straight away and fix the problems, to get quality right the first time (Liker, 2004).

Several authors in the field highlight standardisation as the foundation of continuous improvement and employee empowerment (Brandt, 2013; Bicheno, 2008; Liker, 2004; Spear and Bowen, 1999). The standard explains how people should perform their work, by today's best practice (Liker, 2004). Standardisation makes sure that the work is performed with the same standard i.e. without variation, with no defects and within a certain amount of time (Spear & Bowen, 1999). But what is difficult is to balance between providing the employees with fixed procedures to follow and to give them freedom to act according to their own common sense and knowledge. To reach this balance, the standards have to be specific enough to be useful as guides but still general enough to add some flexibility. It is also important that the people doing the work contribute to improvements of the standards. The standards have to be owned by the employees themselves, as nobody likes to follow other people's detailed rules (Liker, 2004). In line with this reasoning, Brandt (2013) points out that in order for a standard to not be perceived as a constraint by employees in healthcare, it is essential that a standard is set by the employees who are to perform the task and that the standard can be changed when a better approach is found.

Even though patients have special needs it is possible, in most cases, to predict the time needed for different procedures (Liker, 2004). But at the same time, standardisation in public service sector should not be driven too far. If the work tasks have been standardised to the degree when the activities cannot handle the complexity of the service to the customer it may result in high level of unnecessary demand. A sign that processes have been standardised to an excessive degree might be when employees gradually abandon the standard because they do not feel that it supports them in their work (Bicheno, 2008). Although all processes can be standardised, not all should be. The idea is to standardise those tasks that are repetitive, with

the, at the time, best known approach. Despite the reluctance of standardisation which can occur in organisations with high level of unpredictability, there are still many tasks performed that are repetitive, and it is the latter that should be standardised, not the part that demands creativity (Peterson et al., 2009).

3.2.2.4 People and Partners

Liker (2004) stresses that people always plays the most important role, whereupon the leaders have to understand the daily work in detail and the organisation's philosophy, to be able to teach it to others. Hence, it may be better to grow leaders in-house than hire them from the outside (Liker, 2004). A leader who highly understands the philosophy will have the ability to mentor and lead the employees to grow (Liker, 2004) as employee commitment is crucial for the success of lean (Hines et al. 2010). Through teams, work can be coordinated, motivated and one can learn from each other. Teams can also control through peer-pressure. Cross-functional teams may improve quality and efficiency by solving technical problems. But it is important to balance teamwork with individual work as it is often more efficient for individuals to achieve certain work (Liker, 2004).

The chain is no stronger than its weakest link; this means you have to respect the network of partners by seeing them as an extension of the business and help them to improve. It also means you have to work toward the same goal with your partner (Liker, 2004). In accordance with the Toyotan partnership between customer and supplier, healthcare providers and payers should strive to work together to find real cost savings (Graban, 2008). Spear and Bowen (1999) explain how certain activities connect in a system with one another. It creates a supplier-customer relationship in each connection between the person responsible for the activity and the receiver, where standardisation of the activity will ensure that expectations will be met and performed. As a result, there will not be any confusion as to who provides what to whom and when (Spear & Bowen, 1999).

3.2.2.5 Problem solving

At the top of the pyramid, the importance of solving problems to achieve improvement and to drive learning is visualised. When decisions are taken, they should be taken slowly by consensus with all alternatives considered. This may be time consuming, as all parts affected by the change have to be involved, but will strengthen the chance to successfully solve the problem. In contrast, once the decision is made, the implementation should be done as rapidly as possible (Liker, 2004). In order to make effective improvements, the employees need to be empowered to change, know how to change and also know who is responsible for making the changes. However for lean to be successful in healthcare, focus should be on the many problems that can be solved. A focus on the major problems that often exist on an external level, e.g. problems regarding political and financing system issues, might deter people from taking action (Graban, 2008). According to Spear and Bowen (1999) improvements should be designed by those actually doing the work, but with assistance of a teacher, e.g. the supervisor.

3.2.3 Intended and unintended effects of different financing models

A financing model can be an important monitoring instrument in order to create a management accounting system that is efficient, i.e. focusing on quality, productivity and can manage costs. Jacobsson and Lindvall (2008) think that there is no perfect financing model, which is why most financing models are based on a mix of the different models. The financing of Swedish public health centres is to a higher degree than before, based on compensation of performance, which can be seen as a result of influences from NPM (Hood, 1995).

A financing model based on funding per capita enables cost control but risks to crowd out patients with the greatest needs as it also risks low productivity. A performance related financing model gives incentives for a higher productivity and low costs and has the advantage that you can steer towards those goals desired. In addition it can create distortions such as the employees taking advantage of the financing model and focusing too much on those goals generating money, which may result in other areas lagging behind (Malmquist & Pettersson, 2010) as well as other unintended negative effects, such as improvements on documentation rather than the care (Anell, 2009). Such a system also requires measurement and control of the organisation (Jacobsson & Lindvall, 2008). Compensation per product groups, e.g., Diagnostic Related Groups (DRG), tries to control in detail the providers of care in order to prevent them from providing care after what is profitable. This type of compensation gives incentives to increase output and reduce costs, however the increased control leads to incentives of lower production than a compensation based on performance (Jacobsson & Lindvall, 2008). The financial effect of lean in Swedish healthcare partly depends on the proportional division between fixed and variable cost and partly of the financing model. Hence, lean can improve the quality of healthcare without showing any financial benefits. In a performance based financing system, the economical effect is positive, while in an allocation based system, i.e. a pre-fixed budget, increased variable costs may lead to a negative economic effect, although resulting in positive effects to the patients (Brandt, 2013).

4. Empirical findings

This section presents the empirical findings and first, in order to understand the financial control of the health centres, the financing model of VGR is described. Then, there is a short review of VGR's lean initiative. At last, the interviews are presented, divided into strategic and operational aspects in order to make a more easily comprehensible format of the findings.

4.1 VGR's financing model

Although the free choice of healthcare was nationally introduced in January 1st 2010, it was introduced in VGR as early as October 1st 2009, hence the VGR financing model was inducted (VGR, 2012). Health centres in VGR practice the same financing model, no matter if public, or private. Compensation is aimed to cover all costs incurred by activities linked to the mission, such as cost associated with running a health centre e.g. facilities, staff, pharmaceuticals, medical diagnostics, overhead costs required such as existing and future IT support, and collaboration with healthcare neighbors and authorities. The financing model consists of five different parts of compensation (VGR, 2013 b) and is controlled by different levels in a political hierarchy, where the Regional Executive Board prepares a proposal, the Regional Council takes the final decision, and Health and Medical Care Committee of the Regional Executive Board, is responsible for further development of the model (VGR, 2013 a).

4.1.2 The five components of VGR's financing model

1. Main compensation depends on patients listed, e.g. *people's choice of health centre*, based on a number of points, derived from a person's *gender and age* (50%) and also *care burden* (50%). This category corresponds to about 85% of total compensation. Care burden is estimated through a special Adjusted Clinical Groups index, ACG. ACG is supposed to group diagnoses with the same estimated need of health and medical resources. Diagnoses are grouped according to severity and specialised care needed. Multiplying ACG point with those derived from gender and age derives the total number of points. Patients listed determine which health centre will be credited with the diagnosis.

2. Goal-based compensation is derived from the health centre's *contribution ratio* and fulfilment of given *quality indicators*. Compensation of contribution ratio means that the health centre's compensation becomes larger if the patient, listed on the health centre, visits that specific health centre instead of going somewhere else. Correspondence through telephone and e-mail does not count as visits, nor does health screenings, vaccinations and other testing, which are not seen as healthcare. Compensation from fulfilment of quality comprises 39 indicators, which are revised every year. Some indicators have a minimum and

maximum level where no compensation is paid. Also, for several of these indicators, the compensation is linked to the size of the health centre, measured through the listing points.

3. There is also compensation derived from the health centre's *geographical and socioeconomic conditions*. Geographic compensation is valued according to distance to hospital and emergency care, distance to closest suburban area and population density in the municipal where the health centre is situated. Special compensation for socioeconomic conditions is paid to those health Centres, with high Care Need Index such as, proportion of unemployed, elderly persons living alone, foreign-born, single parents, children under age of five and less educated.

4. Compensation when *interpreters* are needed, to cover expenditures and extra time linked to this.

5. Compensation for other *special commitments* linked to the neighbouring area, which often require manual processing, such as responsibility for family centrals or municipal lodging.

4.2 VGR's lean initiative

When the free choice of healthcare was introduced in October 1st 2009, many health centres felt the need to re-organise and improve in order to cope with the increased competition; hence several health centres within VGR were offered the opportunity to implement lean. Although the free choices of healthcare constituted a push for improvement, some health centres within the region were early adopters, e.g. health centre C, which started working with lean already in 2003. At that time, VGR had help from consultants supporting the health centres in their lean work. In 2005, VGR started a Development Group, which started working with lean internally in 2008/ 2009. At that time the group had help from consultants building their lean concept, which they made their own in 2010. Today the Development Group supports 200 primary care units in their business development and continuous improvements (Development group of VGR, interview, 2013-02-08).

4.3 Health centre A

Health centre A was offered, by the Area Director, to implement the lean concept shortly before the free choice of healthcare was introduced 2009, with the motives of strengthening the health centre and becoming more competitive. The objective was to be as good as the private alternatives. A consultant firm was hired to help start up the work, but even though they managed to introduce a new way of thinking with strengthened focus on customers, service and competition, the consultant firm did not manage to make the employees feel fully involved in the processes, according to the director [DiA]. DiA has a background as district nurse. The turnover of employees has been high, which may be another reason why the lean work did not fully take off. During the spring of 2012, they had a fresh start of lean with help from VGR's Development Group, who arranged three education days dedicated to lean.

The initiative to implement lean caused mixed feelings at health centre A. When the initiative was introduced in 2009, the responding district nurse [NuA] felt positive and many colleagues were enthusiastic about getting help with structure and streamline operations. However, the responding doctor [DoA] felt that the first lean initiative was more about running faster rather than working smarter. The second time, when the Development Group was involved, DoA, felt that they were more familiar with the organisation and had a deeper understanding of the employees' problems.

4.3.1 Strategic aspects

Before 2009, the term customer was highly alien and caused quite a few protests, but today it is a matter of course. Today, the competitive way of thinking, comprised of customer focus, financial issues and control measures, takes greater place than before. DiA does not see any problems with the financing model opposing the core values of lean, but stresses that it is about to see the opportunities. *"How can we achieve more visiting hours released to our patients, that is what lean is about"*, DiA says. On the other hand, DiA admits that the financing model does affect strategic, as well as operational decisions. The hours of drop-in per week have been reduced in favour of available times to those with chronic diseases, often patients above 75 years, as they generate more compensation. At the same time DiA points out the necessity of having a system like this, as there is an underlying logic as those patients are in need of more resources than others. Also, NuA thinks the reduction of drop-in is justified as *"drop-in is more a complement"* to a booked visit. Because of the competitive situation, with a brand new health centre established in the neighbouring area, the number of listed patients has dropped sharply. This has caused a situation with a critical need of focus on the activities that generate increased compensation; except from listed patients, e.g. they might start with more home visits, since these will generate triple compensation from 2013.

Both NuA and DoA admit that they think of the financing model and financial issues every single day. They mention a constant focus of registering quality indicators and find diagnoses at every single visit, even if it is not perceived as necessary. NuA has the feeling of constantly *"searching"* for diagnoses. However, NuA thinks that the quality indicators are reasonable, but creates additional administration. The requirement of registering all details about the patient after the visits increases the risk of losing focus on the patient's real problems, as those thoughts might disturb the meeting with the patient, DoA says.

DiA mentions that problems are visualised, because of a more rigid openness to highlighting problems, even what seem to be small issues. The person who raises a problem also becomes responsible for designing an action plan, which is made visible in the staff room. When the problem is mounted and raised, it becomes everyone's concern. The problem is discussed during the APT (workplace meeting) every other week and during the "Groups of improvement" meetings the other week around. The latter is an opportunity for interaction between doctors and nurses and these improvement meetings have been extended from half an

hour to an hour. Both NuA and DoA think that if they are to work with improvements in a meaningful way, they have to make time for it.

Today, most of the decisions are taken in consensus through a joint plan, which has led to a greater commitment among employees, instead of just relying on the director. NuA thinks it is necessary to allocate time for continuous improvements and thinks it is great, but it is essential that the director takes the main responsibility for things getting done and encourages the lean work. Still, there are also those who are too tired to engage, DiA admits. DoA, who thinks that some colleagues might think lean has led to just another burden, shares this picture. According to DiA the extended meeting hours are well-invested money. At the same time DoA thinks more time dedicated to lean is needed, as they had during the education days with VGR, and stresses that the lean work seems to have faded a bit.

The work roles at the centre have changed at some points as the patients sometimes are sent directly to take lab tests with assistance of a nurse, instead of going via a doctor. This has resulted in better quality but also an increased contribution ratio, as these visits are now entered in journal. The same applies to advices from the triage nurse as those are nowadays also registered. DiA highlights that a major focus, which is often displayed at the ATP meetings, is on the diagnoses to assure they are correctly registered in the system, which results in extra compensation. Today the statistical system is available to all employees, not only the doctors and nurses, to show that everyone shares the responsibility and employees are supposed to use it. However it seems that the system is still not very much used by the employees. DoA says that lack of time is one reason.

Further, the cooperation with external partners has not changed since the startup with lean. DoA highlights the constant problem of hospitals transmitting workload to the primary care in order to avoid costs, and emphasises that if the hospitals and health centres were to be one unit there would not be such a problem.

4.3.2 Operational aspects

Most of what has been changed operationally has its roots in three days of startup that VGR's Development Group arranged. During these days, communication was a leading star and the employees designed action plans of problems, which form the basis of today's processes and methods. A first step was to reduce the daily drop-in. However, the current financial situation combined with the staffing situation with two doctors short, has contributed to that the health centre unwillingly refer patients to drop-in, as no booked times are available. Consequently as these patients require longer time for a visit than the quick and urgent symptoms that are supposed to be handled at the drop-in, not all patients queuing to the drop-in come through. This creates an unfortunate cycle of additional unlisted patients, *"If you have money you can employ another doctor, but if you are two millions short, then you cannot. Then you are trapped in a treadmill"*, DiA says. Another change regards the method of handling patients when entering the health centre, through a new triage system. Through the triage system a nurse does a first health check to decide whether the patients need to see a doctor straight

away or what cure is needed. Though, the process to handle patients has not been evaluated, due to a lack of time.

DiA thinks that the patient flow has become better as they have made some changes in the staffing schedule. Still, there is sometimes a high inflow of patients when it is hard to level out workload, especially between 8 and 12 am, as the lab tests are sent on to Sahlgrenska hospital at lunchtime. DiA also thinks that the flow has improved since they started to use a digital colour marking system where, e.g. the doctors can communicate with nurses at the laboratory, which means they no longer need to run around in the corridors to communicate. The interconnections between employees have been increased through an initiative where the triage nurse and the doctors, working during the drop-in, meet afterwards to discuss the patients' cases to erase eventual question marks. According to both DiA and NuA, this has led to a better understanding for each other's profession and even if DoA also thinks that this will benefit both parties in the end, DoA also admits that it is time consuming for the doctors and that it is primarily the nurses who take advantage of this. There are also examples where the interconnection does not work, which create gaps in the processes, such as the TeleQ system, which handles the telephone calls. The nurse responsible for TeleQ, is also responsible of assisting the doctor if needed, which may create a situation where the telephone is left unmanned.

The employees have developed different standards of procedures. Everyone who is affected by the standard is aimed to be in the discussion. The importance is to get everybody involved and take responsibility, instead of just relying on someone else to solve it. Except standards of handling telephone inquiries, there are e.g. standards of how to handle prescriptions of medicine. The standard is valid until someone raises a concern with the standard, which might be from one ATP to another. Both DiA and DoA mention that the standards are sometimes "*forgotten*" and it takes a lot of energy to constantly remind colleagues. NuA thinks that colleagues seldom follow the standards, which she highlights are mutually agreed, and that they are often ignored. The reason might be that it takes a little bit longer to follow the procedures than acting as they like or according to NuA, because of "*laziness*". All standards shall have a planned evaluation date. However, NuA does not think the overall improvement actions are enough evaluated, but emphasises that such a decision is up to DiA.

4.3.3 Outcome

DiA and DoA are not sure whether the patients have experienced any difference since their efforts with lean. NuA thinks it is positive they have started the work with lean, as they are always striving to make it better to the patients. According to DiA and NuA, the most important contribution of lean is the internal effects with greater engagement, to always question and continuously improvements of all types, even though NuA emphasises that it takes at least two to make a difference and this has not always been the case. According to DiA, the engagement may have resulted in the health centre being a more attractive working place as it has improved the internal climate, but also a more demanding workplace were the employees cannot exclusively rely on the management, which is not always appreciated by all.

However, DoA does not really see such internal effects, but still thinks the lean initiative is good, as it has widened the eyes of the organisation.

DiA is not sure whether lean has contributed to capacity release, but thinks it should have, in one way or another, even though DiA cannot think of any concrete example. DiA believes they are more accurate now as they ensure all quality indicators and diagnoses, which has led to a better quality. DiA stresses that lean has not contributed to any financial improvement. The problem is that their number of listed patients is falling, which decreases the revenues. An increased focus on registration of quality indicators and diagnoses has not been enough. *“At the same time, if VGR chooses to open another health centre, as close, they should have thought about the competition it creates”*, DiA says. On the other hand, DiA thinks lean may contribute to both capacity release and financial improvements on other health centres.

4.4 Health centre B

In 2010 health centre B accepted an offer from the Area Director to start working with lean, as they felt a need to look over their internal processes. By that time the health centre was fully manned and thus considered ready to adopt lean. The objective of implementing lean was to deal with limited resources as a result of the free choice of healthcare, to make processes more efficient in order to make it better for patients as well as creating a better working environment for the employees. The startup with lean was enabled through support from VGR’s Development Group, which organised three startup days of lean. Both the responding nurse [NuB] and the responding psychologist [PsB] who have worked at the health centre during these years, found the initiative positive. *“We needed to look over the whole business and look in details to identify areas that did not work well”*, PsB says.

4.4.1 Strategic aspects

Even though the health centre had core values focusing on the patient even before they started working with lean, the director [DiB], who has a background as specialist nurse, marks that lean helps these values to be present and kept alive. DiB does not experience the financing model or any other control system to oppose their work with lean, as lean is about organising processes. However they still need to work alongside with the financing model in order to receive revenues and NuB mentions that the cost awareness has increased. They cannot control number of listed patients, but they can ensure that diagnoses are entered in the journal. It is also important that they register all quality indicators for heavy diagnoses like asthma, diabetes, blood pressure, COPD and cardiac disease. *“To simply renew blood pressure medication for years and years is not medically right”* DiB says, as the medication may need to be changed and emphasizes subsequent actions. Therefore, they now have a system for calling in these patients once a year for check-ups. However, PsB is critical to the financing model as it takes a lot of time to administer and understand the details, which is not in favour of the patients. *“It rather takes focus from healthcare in favour of more economic activity”* [PsB].

Health centre B is trying to meet patients' needs. In the neighbouring area there are many elderly people, with special needs, which they have been aware of and now they have an elderly nurse employed, PsB says. However, PsB sees an increased demand to deal with patients with a mental illness, which would need to be met to a greater extent. Further, there is openness among the different health centres despite the competition. DiB says that "*You should not reinvent the wheel*", which is why the health centre sometimes contacts other health centres for advice or a study visit. The collaboration with partners outside the health centre has not changed since lean and according DiB it needs to become better. However the collaboration and communication with hospitals needs to be improved, especially regarding those patients who get some care from the health centre and some care from the hospital.

After the startup with lean, DiB together with the employees has run the lean work independently and the chairman of each group is responsible of ensuring it. Hence, the responsibility of the lean work is shared between the director and the employees and DiB points out that the advantage of lean is that it comes from the employees themselves, not from above. At the start, DiB divided employees into cross professional lean groups. The health centre has an APT meeting every second week and in one semester the lean groups are leading two of these meetings each, while DiB is in charge of the meetings in between. This shared responsibility was a suggestion from one of the lean groups, PsB included, who sees the importance of more culture bearers at the health centre. Each group has chosen problem areas and has the responsibility of making proposition of improvements. During the meeting there is a discussion of the proposition among all employees and a decision of improvement is taken in consensus.

When problems occur they are brought up during the APT's. If the problem is urgent, it can be brought up at the daily morning meeting when all employees are gathered, or directly with the director. When the employees discuss how to handle a problem on the APT, most of them have many ideas of possible solutions of the problem. When the decision of a solution is taken, they test it for three months and thereafter make an evaluation. The process of decision-making has changed with lean. Before, problem identification and came from the director, but now the responsibility lies on the whole organisation. Since everyone is involved in decision-making, everyone accept and adopt the changes. Both PsB and NuB think the morning meetings are one of the best improvements, "*As it increases the communication*" [NuB]. However NuB still thinks that they do not have enough time dedicated to lean improvement, compared to last year when they had several education days. Also PsB agree on this, as they need more time for reflection. However, PsB has perceived that it has been questioned, from top-management, whether they have time for this, instead of seeing it as an additional chance to communicate and fix urgent problems. DiB hardly believes that they, on a political level, are aware of their lean work.

The employees' responsibilities come with their profession titles, meaning that nurses may need to pass a patient over to a doctor, and when doing so, it is always clear which doctor the nurse should contact. In order for doctors and nurses to clarify matters regarding the patients, they have recently introduced scheduled time for questions between the morning and

afternoon shift. NuB thinks this initiative has led to increased communication between the professions and contributed to a more open working environment, which is mutually beneficial. *“Between nurse and doctor we now trust each other more. I did not experience that when I started working here”*, NuB says.

4.4.2 Operational aspects

It is primarily the nurses at the laboratory who have the responsibility to monitor and ensure that everything flows. During the emergency shift the nurses put up the patients on a computerised emergency patient list, shared between the doctors working the shift. By using colour marking on the list, the doctors can follow what the others are doing. If one doctor has a 90-year-old patient, everyone knows this patient will require extra long time, so the other’s can compensate by at the same time help two patients with symptoms that require shorter time. Hence, the colour marking system increases the visualisation and communication between the employees.

The health centre has chosen to only have bookable appointments and hence no time for drop-in. DiB points out that if they would have drop-in, they would receive patients that do not need to come there, e.g. someone that has caught a cold that needs to heal by itself. With the present system, the nurses can give ordinations and recommendations over telephone, instead of the patients coming to the health centre to hear the same thing and maybe infect other patients. However, patients may come on an emergency visit directly via the doctor or nurse. In order to level out patient flows, they have made more time for emergency visits on Mondays, Tuesdays and Fridays. Also during the year, they see different patient flows, as they know that many catch a cold in November or influenza in January and February. They have not changed the manning during these periods, but the director underlines that they should have a discussion about this concern. However DiB stresses that most people that need to come through actually do, although you can never fully understand the variations in patient flows. Hence, NuB thinks that they have tried to respond to the patients’ request by changing the schedules and adjust telephone hours to their demand. DiB says that all employees think this adaption is of good and work well, provided that they are fully manned.

When problems are discussed, they decide on a mutual best way so that everyone does the procedure in the same way. For example they have developed standards on how to control blood pressure, health conversations and how to meet the central requirements regarding handling of referrals. They have also worked out a standard how to meet the heavy consumption of alcohol in the neighbouring area, by a check-up in form of specific questions. This is important, as alcohol consumption is the root of many other diseases like high blood pressure and panic disorder. Though, DiB highlights that it is important not to leave it with the first control that gives revenues, but to also provide a dialogue about the problem. However a standard to ask patients about drinking habits and thereby dig in the patient’s personal life is a difficult subject among some employees. NuD stresses that the nurses mostly follow the standards, but the doctors have been more reluctant, especially when it comes to the questions about drinking habits, as it is seemed private or embarrassing. As it is always

difficult to get everyone to agree on a standard DiB says that they implement a standard if approximately 80 percent agree on it, as *“There is not time to await all”*. This means there is a risk that some will deviate from the standard. However, DiB stresses that they always evaluate all standards and highlights that it is important to schedule time for evaluation.

4.4.3 Outcome

Lean has increased communication among colleagues and hence also the collaboration [DiB]. According to DiB, lean has made the employees taking greater responsibility and in hand with increased communication, lean has improved the health centre as a working place, which PsB agrees on. Besides, NuB emphasises that the increased structure that has come with the lean work creates a better working place for new employees. DiB believes everyone appreciates increased responsibility to some degree and NuB agrees that most colleagues appreciate the increased responsibility. DiB thinks the employees have a greater patient focus nowadays, which can be due to a combination of lean and the free choice of healthcare. NuB highlights they have more elaborated processes now, which benefit the patients especially by time.

PsB emphasises more structured routines and that they know *“who is doing what”*, partly because lean has made them get to know each other better, which results in correct referrals and answers that benefit patients. DiB hesitates whether the patients have experienced any visible effects of their lean work, as the ability to get an appointment and the time of their visit is the same as before. However both DiB and NuB think the standards have improved the quality of the healthcare as they are *“perceived more as a united front”* [NuB].

Moreover, DiB emphasises that a health centre is, by nature, a stressful working environment and this has not changed with lean as they now have the same work force but some additional working tasks. However, the extra tasks like meetings and lean groups have not made it more stressful, since lean has helped them simplify the work through routines. DiB has not seen any remarkable capacity release, even though they have made some minor changes to improve patient flow. Hence, the new routines have reduced rework. Since a part of the lean has been to improve the quality indicators it has also resulted in increased diagnoses registered, which to some extent has led to improved finances. Hence there is some focus on the financing model as it determines their future existence, but DiB argues that the quality indicators generate revenues because they are important from a patient perspective, *“to ensure the equal care regardless of health centre”* [DiB].

4.5 Health centre C

The director [DiC] of health centre C, who has previously worked as a doctor, came across the concept lean ten years ago when DiC was looking for a way to create a better flow in the operations and facilitate high volumes of flow. In 2003, DiC together with the vice-director were the two who took the initiative to start working with lean. The responding district nurse [NuC] found this initiative very exciting and interesting and according to NuC's belief, so was the opinion among the other colleagues. An external consultant assisted the startup with lean

and functioned as a sounding board, but was not brought in-house or to front the employees. Instead they wanted to learn themselves. The contact with the consultant kept going for approximately one year.

4.5.1 Strategic aspects

DiC thinks the fundamental values of lean correlate well with the health centre's and has not changed, as they are trying to think long term with focus on the patients well being. However, DiC says it has been a challenge to think of the patient as a customer, as they are not selling pills or sick-listing for money and the healthcare has to benefit the patient and align with professional's and society's values of good care. DiC emphasises that not always do requirements from politicians or VGR fully support lean, as there are sometimes a great demand of statistics, registrations and measurements, but it does not affect their lean work in general as lean works more as a source of inspiration and tool box. Even though these requirements do not benefit the patient in the short run, they have to do it and lean helps them to meet those requirements with as little effort as possible. NuC does not think lean is conflicting the financing model, but rather contributes, as improvement and quality work will lead to increased compensation through the quality indicators. NuC does also argue that financial interests do not affect adjustments after patients' needs. Decisions regarding change of the provided healthcare have different bases. One base may be a change in the patients' needs; e.g. when many patients requested a certain type of vaccination they started providing it. Another base for change can be political decisions. Hence, the free choice of healthcare has contributed to a difficult balance between availability and quality, which also has to align with their long-term values.

What has changed, since the startup with lean, is the process of decision-making. The employees are divided into cross-professional working groups with a team leader in each group. The groups meet one hour every other week and the other weeks there are APT meetings. Besides, meetings grouped according to profession are also held every week to raise questions later discussed in the working groups. When a subject is raised at the ATP with a concrete proposition, everyone has had the chance to be heard, which facilitates an introduction of a new PM. This process might take extra time, but when it is done, the changes can be implemented quickly. Nowadays DiC tries to avoid unanimous decision-making and instead, tries to forward it to one of the working groups. NuC emphasises the increased feeling of participation and that all voices, no matter profession, are heard. DiC, together with the group leaders, are the ones responsible of the communication of lean and as soon as someone highlights a problem, the responsibility of the problem shifts to them. Sometimes DiC is involved in the group meetings, but is trying to stay outside the process, to make them feel more involved in the decision-making, as a way of working with employee empowerment. NuC gives the same picture; of a director taking a step back but who picks up on what is discussed. The cooperation with external partners has changed to some degree, as they sometimes invite people from home care to attend their group meeting and get them involved in their activities to achieve a better fit between the parts. Though, the interaction with hospitals has not changed much.

DiC thinks that they have come a long way when it comes to think in long terms and to find solutions that benefit the patient. Every spring and autumn they have training days, often two days with one overnight stay, where they are working in small discussion groups to get to know each other better and to work with development issues. Instead of closing down the health centre or separate the employees in two occasions, they cooperate with a nearby health centres that works as a stand in for them when they are away, and vice versa. They are familiar with each other's premises and have also exchanged a lot of ideas, during these occasions.

4.5.2 Operational aspects

In order visualise and raise internal problems in an early stage, they have tried different systems throughout the years. The present system is a whiteboard whereon employees are encouraged to put post-it notes. These post-it notes are then subject to next meeting between the director and the team leaders. Depending on the problem's nature, it will be covered during the APT, the cross-professional working meetings or by the relevant professional group. The team leaders spend extra time finding ideas and solutions, as they have some scheduled time for this. The whiteboard also shows updated statistics of quality indicators, number of listed patients and contribution ratio.

The patient is visualised at the health centre through different colour markings in the systems, as the colours function as different messages. DiC thinks that it sometimes is difficult for doctors to visualise when having problems during the handling of patients since most work is behind closed doors and due to this, they have started using a digital calendar to send messages to the nurses when overburdened or in need of help. In order to meet patient flows they have started to have more time for emergency visits on Mondays and Tuesdays. NuC also mentions increased flexibility in schedules and extra manning the days after major holidays.

The health centre has made a strategic choice in trying to make the employees changing tasks with each other to maintain previously competences, as some assistant nurses has a background as secretaries. The rotation is including the secretary as well as the expedition and has contributed to increased flexibility and less vulnerability, in unexpected situations as well as greater understanding for each other's work tasks.

The standards are numerous but have been changed countless times over the years, as ways of doing things better and more easily have been detected in the working groups. To map all processes and activities, the employees have put a great deal of effort in trying to write down "*what are we doing in one day?*" and "*what services are we offering?*" which made them identify services linked to doctor and nurse visits with testing, check ups and telephone counselling. DiC thinks that it is important to do the mapping from the patients's perspective rather than describing the different working tasks performed by the employees. DiC emphasises it is important that everyone is involved, but also admits that mapping takes a lot

of time. Most often the mapping is made in order to discover where in the process the waiting and rework take place. According to these areas, standards were identified and designed. The discussion starts at the cross-professional meetings and is then discussed in the groups of profession for opinion and is then sent back to the working groups again. When a new standard is prepared and checked by the director, the standard is brought up at the APT and the new PM is written.

If something has caused a problem, the first question is whether they have a routine or standard for this process. The second is, if the routine was followed. If something concrete malfunctions, the PM is picked up, to see if it is obsolete or in need of a change due to new circumstances or a new working method. If there are small changes, it is often enough to lift the discussion at the APT and together write an update of the PM. DiC thinks the new standards have contributed to a better structure, which is also required in healthcare. NuC also experiences the standards as guiding and making task easier *“as you do not need to ask for assistance if a procedure is forgotten”* and NuC thinks that the standards are followed to a great extent; *“otherwise errors will soon arise”*. NuC does not perceive them as redundant or unnecessary and has not heard of any complaints from colleagues.

DiC separates the philosophy from the specific lean tools but mentions that, only by using the lean tools you will achieve improvements automatically, as the commitment by the employees increase. DiC is familiar with specific lean tools and in order to visualise waste in form of waiting and rework, they use value stream mapping, although it is time consuming.

4.5.3 Outcome

DiC thinks the patients experience they are able to provide healthcare of good quality and that the patients are satisfied with the healthcare provided. This statement has been confirmed through the yearly patient surveys. NuC thinks their improvement has resulted in a clarity how we handle patients, which make processes more efficient and more time is released to patients. DiC thinks that the lean work has made them a more attractive health centre, both to patients but also as a workplace seen from the employees' perspective. DiC thinks that lean helps them cope with stressful situations they face in periods, especially when they are undermanned. In those periods with increased stress they try to increase meeting hours and work with issues that engage at that time, which make the stress level decrease. An employee survey is handed out quarterly, which forms a discussion on APT, in order to raise concerns about the working place and what they can do to improve it. NuC highlights the possibility to influence the work and being heard, as the greatest outcome of lean.

Lean has contributed to capacity release, as they have managed to use just-in-time delivery of medical supplies every week, which has made it possible to use old storage rooms as administration and office rooms. The capacity release has therefore been used to improve the flow of patients. DiC thinks lean is a great tool when it comes to financial improvements, as it improves all parts of the health centre. DiC sees lean as a tool to facilitate e.g. the registration of the parameters, which through the financing model generates revenues. DiC also says that

usage of standards may contribute to reduced cost because of less uncertainty, e.g. by only using x-rays when necessary. Finally, DiC thinks lean works as a tool to operate business and benefit from it in all processes at the health centre.

4.6 Health centre D

The director [DiD] of the health centre D, who has a background as nurse, was director for five years and left the position in November 2012. Lean was introduced before the summer of 2009, facing the free choice of healthcare, with help from a consultant firm. The Area Director had been analysing the health centres in the area and came to the conclusion that the health centre would not manage the competition with the working methods they used back then. At the time they could only manage to handle patients with chronic diseases and those with urgent problems and symptoms easy to care, were unwillingly referred to other health centres, which resulted in a drop of listed patients. The purpose of lean was therefore to bring back the patients they had lost and thereby serve the patients in the neighboring area with the care they needed. The responding doctor [DoD], who is a former director at the health centre, was also a promoter of the lean initiative, with the same mentioned reason, which led to “*a cumbersome organisation*” with many complaints, both externally and internally.

4.6.1 Strategic aspects

After the startup, the lean work was operated by DiD together with a group called Quality Council, consisting of representatives from the different professions at the health centre. DoD participates in the Quality Council. Statistics and measurements from the quality indicators, patient flows and the financials formed the basis of the discussions on the Quality Council meetings. The representatives of the Quality Council were aimed to bring their ideas out to the rest of the employees for discussion at the profession meetings, though NuD says “*All professions are represented, but the nurse in the Quality Council never tells me what they are talking about*”. DoD admits that the discussions at the meetings were transferred to the rest of the doctors to a greater extent when DiD was director than now, but also points out: “*We have such open communication here, it is not so hierarchically controlled; you do not have to be a part of the Quality Council in order to forward your views*”. DiD thinks the decision for a change was taken by all employees at the APT meetings, even though the problem solving often started at the Quality Council meetings. DiD mentions they tried out more new ideas than before and thought, “*You can always try an idea and then evaluate it*”. Though, DiD says that they had at least as many meetings before lean; however earlier, doctors and nurses had meetings separately and each doctor ‘owned’ his or her own calendar whereas after lean the calendars were opened up, enabling other changes in order to be able to receive more patients. “*In a way you control more with lean, before the employees were like self-acting islands while I tried to make ends meet with the financials...*” DiD says.

The initiatives of improvement most often came from the director; they had a box for employees to put their ideas, though there were rarely notes in it. They picked up complaints from patients on phone or in the national patient survey. They also have a morning meeting,

when all nurses meet to organise and divide the tasks of the day. From the beginning, also the doctors were supposed to attend this meeting but they resisted; *“some things cost too much energy to carry through”* DiD says. DoD has only attended if there has been something special DoD wanted to convey to the nurses. NuD thinks the APT’s is useful and a source of participation and inclusion.

DiD believes lean combined with the free choice of healthcare helped them to change to focus on listed patients’ needs, how to retain the patients and provide them with the best possible healthcare. Before the healthcare was more based on the employees’ own interests and needs, but lean made the health centre open up to more patients, DiB says. Lean was a tool helping them to view the centre as one unified system and brought more structure and communication across the professions, while remaining the patient safety. NuD thinks the APT as well as the teams are a forum for greater interaction but would not say that this has changed the roles between different professions. *“Sometimes it feels a little bit old-fashioned and hierarchic at health centres, compared to hospitals”*, NuD says.

DiD believes most employees understood the need of change that lean brought, as a change was crucial for their future existence. Nevertheless DiD admits that not all employees liked it. Some employees had difficulties to accept a change of the working methods as they had had the some routines for 30 years and mentions that some nurses e.g. resisted to be stationed by the telephone as they thought it was a waste of their competence, so in the end they did not [DiD]. NuD gives the same picture, that it is sometime a resistance among some district nurses to share the responsibility of tasks such as telephone handling. In that way, it has not changed a lot, NuD says.

According to DiD, lean is a tool for structuring the working methods in order to register the diagnoses the patients actually have, as registration generate revenues. *“It costs too much money to care for a patient with diabetes without registering the diagnosis diabetes”* DiD says. They used checklists to control the quality indicators when the patients were at the centre, which e.g. meant they started measuring the waist. In that sense DiD thinks they work alongside with the financing model. DoD does not think the financial focus has changed, but admits it takes a lot of time to register everything and it is questionable *“How important it really is to measure the waistline of people”*. The responding nurse [NuD], who started working at health centre D after lean was introduced, thinks the financing model sometimes leads to care provided based on the wrong reasons. NuD underlines the financial focus of measuring waist, blood pressure and cholesterol, but that these measurements seldom are used, but only registered in order to receive revenues. It is rather more important to register, otherwise we do not receive any money, and the registering does not give quality NuD says and highlights: *“You find groups at risk and risk factors but then you do not do much with the results”* NuD says.

DiD believes that at least the representants of the Quality Council had an understanding for lean; the rest viewed their work more as an overall improvement work. This picture is enhanced during the interview with NuD, who does not know what lean is, but instead relates

to their efforts as improvement work. They have not had any education days besides those days at the startup, and with hindsight DiD believes that they could have carried out more changes if so.

The cooperation with partners has changed to some extent. The routines for the cooperation with the elder care has changed to the better, but also the cooperation with other health centres have strengthened. DiD had meetings twice a year with two directors from other centres, of which one also work according to lean, but none of them is in the competing geographic area. The directors met to compare the health centres by discussing differences and numbers, and DiD thinks they had good help from each other.

4.6.2 Operational aspects

The working methods changed with lean. In order to reach the goal of handling more patients and those with urgent needs, the health centre organised drop-in, to create a flow and not have patients in the waiting room too long. Quick and easy-to-care symptoms were handled during the drop-in and others were referred to a booked time. DoD appreciates the drop-in, which is not only important to patients, but also stimulating as there are other patient groups and cases than at the booked visits. NuD did not work at the health centre when the lean initiative started in 2009, and associates the lean work almost exclusively with the introduction of the drop-in.

To meet the different patient flows DiD set the schedule, manning and the proportion of booked appointments compared to drop-in, by analysing statistics of the different patient flows during the year and week. The statistics e.g. showed that the centre was particularly busy on Monday mornings and somewhat quiet on Wednesdays and therefore the centre was manned after this prediction, which NuD thinks is good. They also took help from extra people during what the statistics predicted would be hectic vaccination periods, whilst asking the employees not to take vacation during these periods. This seems totally reasonable to DoD. They reorganised the logistics at the health centre, in order to create a better flow and to organise the centre as one combined system. They also decided that all rooms should look the same in order to increase functionality, i.e. no private pictures in the rooms, so that the employees could work in any room.

The centre had a computer signal system with colour marking in order to communicate the patients' needs between the professions, e.g. nurses registering a patient in a certain doctor's calendar. The health centre also had teams with the different professions represented, handling different patient groups divided after the date in the month they were born. These teams were created in order to improve the patient safety so that the patient was to be handled by the same doctor. The teams met three times a week to discuss the patients and their needs. Both DoD and NuD are not sure whether these teams have lead to increased cooperation among different professions but emphasise the benefit for patients, as they got a better continuity and get to see the same doctor to a greater extent.

The health centre has developed standards for different procedures and most of these were set at the beginning of the lean work. The idea to new standards is raised on the professional meetings and then announced at the APT meeting. They have tried many standards that they have later reconstructed or simply ignored as they created additional work, instead of simplifying a task. They tried to evaluate the standards, though DiD admits that evaluation of standards difficult to measure, may fall between the cracks. NuD also thinks that an evaluation of many standards is necessary, as many of them are used inconsistently, *“You do them sometimes, sometimes not”* [NuD], and less frequent than before. Also DoD says the standards are not always followed and he agrees that they could evaluate them more but stresses that there is not enough time. Though, DoD says that the doctors discuss working methods on the profession meetings and the discussions results in unwritten and informal standards. *“A kind of ‘big brother’ sees you, so that is why you cannot deviate too much”*, DoD says and refers to his colleagues.

4.6.3 Outcome

As lean was introduced just before the summer of 2009, they measured the outcomes in September, just as the free choice of healthcare was introduced. During the summer they had managed to increase the patient accessibility by 70 percent. DiD thinks the patients experienced an effect of their lean work, as it nowadays is fairly easy to get an appointment and as their working methods changed to become more service-minded. Lean did not increase the number of listed patients remarkably; nevertheless it helped them to take care of the patients who were already listed there. All patients that need care urgently get an appointment the same day; before they had to send them away. Also NuD and DoD agree that the increased accessibility is the greatest improvement, which benefits the patients. When it comes to the employees, DiD thinks that lean made the health centre a better working place, although there are always those against change. DoD thinks that the rotation, which came with the drop-in, is the biggest contribution, and of course, that the patient seems to be more satisfied now with fewer complaints.

The finances were balanced also before lean but the Area Director’s analysis displayed that this balance would break down if they continued with their old working methods when the new financing model was introduced and the increased flow of patients that came with the lean work kept the finances balanced. This increased flow of patients increased the revenues, though at the same time more staff was needed which increased the costs.

5. Analysis

The analysis is based on the theoretical framework and the empirical findings. It addresses both research questions, analysing both strategic and operational aspects of how lean is perceived at the health centres and its outcome, as well as the perceived challenges of working according to lean in parallel with the existing financing model. The analysis is, apart from the division of strategic and operational aspects, further subdivided into the most interesting areas identified of the empirical findings. Further, the analysis is built on the four-perspective model, but does also take into account theory of NPM's marketisation in form of the intended and unintended effects of VGR's financing model. The theory of accountability contributes to a better understanding of the empirical findings.

5.1 Strategic aspects

5.1.1 The lean initiative

The initiative to startup lean has been experienced different among different employees and health centres. Some employees perceived the initiative as positive and exciting while others thought it would mean yet another set of requirements on top of the already existing. DoA felt the first initiative would result in increased work burden. Here, the preparing presentation from organisational leaders of what lean would mean for their work role, what type of accountability and outcome lean would result in, has played a crucial role to what degree they have embraced lean. This is also in accordance with Miller (2005) and Hines et.al (2010). In addition, what their current working situation looked like and their perceived need of change have played a central part; *"We needed to go through the whole business and look in details to identify areas that did not work well"* [PsB] and a description of *"a cumbersome"* organisation [DoD]. This is in accordance with Lebow (1999) who argues, *'Companies rarely pursue lean unless they are feeling some pain'*. In contrary, [B] was at that time fully manned, which made them feel ready to adopt lean. Hines et. al. (2010) stress that a change towards a lean behaviour requires a belief that you have the right preconditions in terms of necessary skills, competencies and resources. This might conflict with the fact that organisations *'feeling some pain'*, to a lower degree have the preconditions highlighted by Hines et al. (2010).

5.1.2 Increased focus on finances

The common purpose and mission of all health centres is to provide care with good quality and fulfil the patients' needs. According to Liker (2004), these values should form the basis of decisions and replace short-term decision-making, even at the expense of short-term financial goals. Liker (2004) states, the only reason the philosophy would change is if there is a fundamental shift that threatens its long-term survival. However, as the health centres are

controlled by the financing model in order to receive their revenues, it has a natural place in discussions at meetings at all health centres, as it determines their future existence. Due to many years of inferior finances, [A] partly adjusts the care after what earns the highest income. This means the financing model does affect strategic and operational decisions; e.g. the objective to achieve more visiting hours to their patients has shifted focus, as the hours of drop-in per week has been reduced in favour of those patients with chronic diseases, who also generate more compensation. This can also be exemplified by the thoughts of increasing the numbers of home visits, since they will generate more compensation [A] and has its roots in the increased competition, especially from the neighbouring health centre, but also in general. However, DiA thinks that it is justified, not only financially, to focus and release more time to these segments as these patient groups are more resource demanding, and hence there is a natural reason why they generate more compensation. Also NuA emphasises other more patient-friendly reasons than financial, to why the drop-in has been reduced. However, as Roberts (1991; 2001) argues, accountability linked to existing measures and requirements in VGR, risks to reward a specific focus on healthcare. This may influence employees to subconsciously justify and encourage initiatives, e.g. an increased focus on those patient groups who generate the most compensation such as those with chronic diseases, as the accounting system signals it is important. The definition of accountability as *‘the willingness and ability to explain and justify one’s acts to self and others’* could therefore be claimed (Munro and Hatherly, 1993). This might oppose the lean philosophy, where customer focus is aimed to result from the organisation’s long-term values.

5.1.3 Diagnoses and quality indicators create additional administration

Besides [A], all other health centres stress that they do not change the provided care after short-term goals, but the new and constant focus on financial issues is something that is emphasised by most responding employees and directors. To receive revenues one must assure that all diagnoses and measurements regarding quality indicators get registered. The pronounced criticism from several employees and directors [DoA, NuA, PsB, DiC, DiD, DoD, NuD] is that this type of accountability, created by the financing model, creates additional administration, which they think is sometimes unnecessary. DoD mentions it is questionable, *“How important it really is to measure the waistline of people”*. In contrary, DiB emphasises the importance of the quality indicators from a patient perspective, as they ensure *“Equal care regardless of health centre”*. Liker (2004) stresses the difficulty in balancing employees with fixed procedures to follow and their common sense, built on their own knowledge. As the health centres’ future existence rely on this type of administration, there is no room for trade-offs to act according to their own common sense or knowledge, which results in what sometimes are perceived as *“unnecessary”* procedures, are conducted (Malmquist & Pettersson, 2010; Anell, 2009). Even worse is, if the thoughts of these requirements and a feeling of *“having to find”* diagnoses [DuA], removes the focus from the patient’s real problem, as DoA describes; or when the financing model leads to that the health centre provides care of wrong reasons, with accountability to measure and account without concrete use and evaluation afterwards [PsB, NuD]. DiB mentions how the health centres receive revenues by asking for drinking habits, but with no such incentive to establish a plan for

subsequent actions. As lean is aimed to help organisations to improve their processes to support safe, high quality and efficient healthcare (Graban, 2008), accountability to the financing model seems to sometimes oppose this aim, as there are no financial incentives for further preventive actions, which would benefit the patients.

Above mentioned examples display how employees, despite some reluctance, choose to strictly follow the financing model and the guidelines for registration, as it is considered crucial to the health centres' survival. This reality may be explained by Robert and Scapens (1985) declaration that power enables accountability; and in the hierarchical relationship between the health centre and the authority of its financing (the VGR county council), the latter has the power. Checkland et al., (2004) argue that in a system where the patient pays, there is a risk that unnecessary procedures are conducted, as a way of maximising the income. Even though this is not the case the principle is the same, as the financing model pays for sometimes, perceived, unnecessary procedures to be done. This is also backed by Liker (2004), who states that different types of short-term myopia may hinder lean in organisations, as cost reduction and therefore also revenue maximisation not should be an underlying principle that drives decisions. Therefore, the ability for an organisation to focus on long-term objectives is also highly dependent on how the organisation is financed. Also, the increased availability of statistical systems and its explicit call to use it [DoA] in order to improve diagnosis and quality indicators, increases the hierarchical accountability towards the financing model as the employees are putting themselves in relation to objective standards of expected benefit. This explains the statistical system's central role, as it becomes a way for others to view, judge and compare individual and group performance (Roberts, 2001).

The discussion above is also a clear example where employees may have difficulty in balancing different parties' interests (Munro and Mouritsen, 1996; Checkland et al., 2004) as the patient requires full attention on the medical visit, while VGR needs the diagnosis registered. Also the need of statistics requires other measures in order to evaluate the care, which results in evaluation of measures that might not seem justified for the practitioners in the specific organisation (Hasselbladh et al., 2008). However, there is no real contradiction perceived between such statistical systems and their lean work, but rather the experience of not having time to spend on it; and Liker (2004) states it is important that technology supports the people and processes and not the other way around.

5.1.4 Meet patients' needs

All four health centres emphasises that lean has changed them to think more of the patients and their needs. At [A], drop-in has been reduced in favour of bookable times. This is said to be motivated in order to meet the need from the increased number of patients with chronic diseases [DiA]. However, as [A] has a pronounced lack of resources and an urgent need of more doctors, they are not able to fully adapt their healthcare to patients' needs. If they were, they would not have needed to refer patients to drop-in, even though they are in need of a more time-consuming visit. In contrary, both [B] and [C], have been able to adapt provided care to patients' needs; even though no financial incentives are given. [C] has e.g. listened to

patients' request of a specific type of vaccination and thus started providing it. NuB mentions that they have sought to meet patients' needs by e.g. having an elderly nurse employed, as there are many elderly people in the neighbouring area. In addition, they have tried to respond to the patients' requests by changing the schedules and adjust telephone hours to their demand. These attempts to listen to the patients' needs without putting financial aspects first, display that some health centres take responsibility for their activities and express their wish to let the patients' needs govern. At [B], the professional ethics goes beyond financial aspects, as they do not find it justified just asking questions about drinking habits without any further actions. Here it seems like accountability of ethics, such as the personal experience of meeting the patients' needs in the guise of their professional role, is taking precedence.

However, there are still unmet needs to meet as e.g. PsB sees an increased demand of psychologists. In addition at [A], the attempt to govern the healthcare towards more bookable appointments failure due to scarce resources, and thus the economic consequences once again prevails. Summarising the examples above display a jumble of different accountability, where many different values have a prominent place, but with a risk they might collide.

5.1.5 Support from management and working roles

All health centres, except [C], where DiC was the leading force, implemented lean on offer from the Area Director, though the lean work has been managed by the directors of the health centres ever since. On this basis, it correlates well with Brandt's (2013) and Miller's (2005) statement that commitment from top management is essential in order to help the whole organisation to embrace lean and guide them to the right choices. However in an organisation such as a health centre, it is hard to distinguish what managers at the very top mean, as the organisation highly relies on political instances such as the Regional Council and Health and Medical Care Committee, which DiB stresses are not involved in or hardly even aware of the lean projects. PsB has the perception that extended meeting hours, like the new morning meetings, are sometimes questioned from top-management and perceived as "*waste of time*". This creates conflicting signals between [B]'s lean work and higher instances. However, in this case, support from the director seems to have been enough to further enhance the feeling that it is justifiable to spend time on it.

In line with Liker's (2004) statement of the importance of management commitment and that the leaders must understand the organisation's philosophy, why it is better to grow leaders in-house, all directors have a background within healthcare, either as a nurse or a doctor. However, understanding of the organisation does not seem to be enough. NuA expresses a certain lack of guidance from the director and emphasises that the main responsibility of lean has to be on the director, otherwise it will not happen. Also DoA gives the picture that the lean project seems to have faded a bit. An explanation might be the current critical situation where the hierarchic accountability, whereupon the health centres continued existence rests, has a greater place than improvement work such as lean. Hines et al. (2010) support this analysis as they argue that a change towards lean behaviour requires that you believe you have the skills necessary as well as competencies and resources to make the change possible.

5.1.6 Cross-professional work and teams

Miller (2005) states that the organisational structures must be adapted, which is in accordance with the increased team-based and cross-professional work at all health centres. Also Liker (2004) states that cross-functional teams may improve quality and efficiency, as one can learn from each other. Several practical changes have occurred which have given emergence to new work roles, such as a meeting between doctors and nurses to clarify matters regarding the patients [A, B], nurses helping doctors to contact and forward messages to patients [B], rotation of expedition and secretary tasks among assistant nurses [C] and increased responsibility among district nurses to help with tasks such as telephone handling [D]. These initiatives have been experienced differently. Some of them have led to a better understanding of each other's professions and increased trust and relief of workloads by helping each other with tasks, but also a resistance as it is experienced as time consuming. The meetings between doctors and nurses to clarify matters regarding the patients, where DoA consider that it might benefit the nurse the most but eventually both parties in the end, may reflect social accountability, built upon good manners and social norms (Sinclair, 1995). This creates a situation where initiatives can proceed despite some resistance, because of social norms saying that it is not okay to deviate from something that is desired by the other part and that contributes to increased knowledge, which might benefit the patient in the long run.

Also [D] shows an example of how old hierarchies seem to exist between doctors and nurses, as the doctors seem to only show up at the morning meeting when they want to convey something [D]. Also, NuD gives the expression of the health centre as sometimes "*old fashioned and hierarchic*" and both NuD and DiD emphasises a resistance among some district nurses to share the responsibility of tasks such as the telephone handling. In contrast, DoD does not experience the organisation as particularly hierarchic and mention that; "*You do not have to be a part of the Quality Council in order to forward your views*". This illustrates how social accountability and hierarchies affect the outcomes of certain initiatives. Summarising, the latter example displays how different professional roles may have different views of the current organisational structure, which creates social inequalities that may hinder collective actions (Roberts, 1991), such as helping each other with telephone handling. In these cases social accountability is due to a conflict, which may hinder the lean initiative to set root.

5.1.7 Meetings, communication and empowerment

Spear and Bowen (1999) point to the importance of making problems transparent so that no problems remain hidden. All four health centres have, since lean, beside APT meetings, organised cross-professional meetings to enable discussion of problems. Since lean was introduced, at [A], [B] and [C], the responsibility to highlight problems is moved to everyone, although at [D], the director together with the Quality Council seem to be the responsible and driving force. NuD experiences the APT's as useful and a source of participation and inclusion, but does not feel involved in what the Quality Council is doing; and DoD admits the sometimes absent transmitting of information from the Quality Council. Therefore,

engagement through the possibility to participate in the lean work seems limited, and that might be an explanation to why NuD is not familiar with the term “lean” and almost exclusively associates the lean work with the introduction of the drop-in. However, decision-making has changed since lean and is at all health centres, to higher degree than before taken in consensus, which creates a greater sense of engagement and communication. This is in line with Spear and Bowen’s (1999) statement that improvements should be designed by those actually doing the work. The empowerment of employees is one of the most important cornerstones to effective improvements (Liker, 2004) and therefore crucial for the success of lean (Hines et al. 2010). DiC is actively trying to take a step back to further encourage this. DiC also mentions that, the fact that everyone has the chance to be heard before a proposition is put through might result in a more time consuming start phase, but followed by a shorter implementation phase. This is in accordance with Liker (2004) who states that in order to increase the possibility of a successful problem solving, decisions should be taken slowly, in consensus, but implemented rapidly.

Liker (2004) emphasises the importance of continuously invest in people to build a culture of continuous improvement. All responding employees think it is necessary to allocate time for improvements. However, DoA, NuB and NuD would like to have even more time for education days and both DiD and NuB think this could have carried out more changes and improvements. NuB states that most colleagues seem to appreciate the increased responsibility and thinks that this responsibility is important for continued lean work. However at [A], there seems to be a split between those too tired to engage who see the increased responsibility of participating in the problem solving as just another burden, as DoA and DiA mention. In contrast at [B], employees seem to have many ideas of possible solutions of identified problems and they have actively suggested being in charge of some APT’s, which support Hines et al. (2010) argumentation that employee commitment is crucial for the success of lean work. However, the fact that all health centres, to a varying degree, put time and effort into improvement work through extended meetings, displays that they see improvement and forums to enhance communication as important, even though it takes time from the core business. Most agree that such initiatives are highly needed and in this case the accountability to lean, as well as to colleagues, is greater than other short-term incentives, such as financial, that in the short run would benefit the finances.

5.1.8 Cooperation with partners

As there exist many types of relationships with external partners, there seem to be different preconditions for lean, depending on relationship. There is a partnership with other providers within the healthcare sector e.g. hospitals, but also a relationship with other health centres. Liker (2004) argues that you have to respect the network of partners by seeing them as an extension of the business and help them to improve. Although the free choice of healthcare has brought competition between the different health centres, at [B], [C] and [D], there still exist cooperation with other health centres within VGR. At both [B] and [D], the directors argue that there is an openness among the health centres as both DiB and DiD cooperate and exchange advises with directors at other centres. Also at [C], collaboration with other health

centres exists; when they have training days, it is arranged so that employees from another health centre work as stand in and vice versa, meaning that everyone can attend the training days. According to DiC, this cooperation has made the health centres exchange a lot of ideas. Hence, the cooperation with other health centres seems to follow Liker's (2004) enunciation that partners within a network should cooperate.

All health centres express that the cooperation with other external partners has not changed to any major extent, since lean. DiB emphasises the collaboration with external partners needs to be improved and specifically highlights the cooperation with the hospitals. NPM has brought a new structure to the public sector with a division of different units (Hasselbladh et al., 2008) and Liker (2004) emphasises that partners in a network must work towards the same goal and be seen as an extension of the business to help them improve. Though, there seems to be an absence of such cooperation, as DoA illuminates the constant problem of hospitals transmitting workloads to the primary care in order to avoid costs, and argue that if the hospitals and health centres were to be one financial unit, there would not be such a problem. Competition within the public sector, as an eventual result of the introduction of NPM in healthcare (Hood, 1995) creates lack of accountability for cooperation and might be explained by the clash to accountability to financing, as both health centres and hospitals lose money helping each other with services outside the area of their responsibility. Consequently the health centres, as well as the hospitals, risk to lose the opportunity to cooperate based on their own unique competence, which could have created better customer orientation (Liff, 2011), in line with lean.

5.2 Operational aspects

5.2.1 Visualisation of flow

In line with Liker (2004) and Graban (2008), [C] now and then uses value stream mapping to visualise the flow, in order to identify rework and waiting. This process requires involvement from all employees and takes a lot of time; and as time is a limited resource this may be a reason why the other centres do not use this lean tool. [C] also uses other tools, in order to visualise and raise internal problems, such as post-it notes on a whiteboard.

All centres are using a colour marking system in order to visualise the patients' way through the centre and communicate with colleagues. On one hand, the usage of such a system seems to improve communication between the employees and different professional roles, linking the employees and tasks together and eliminating the need to physically move in order to communicate. Hence, accountability regarding usage of such a system seems to have taken root at all health centres. Although, [B] and [C] also use the system to, in line with Spear and Bowen (1999), detect problems and need of assistance. So on the other hand, in the strive for the system to also help detect problems, accountability is added to the employees at [B] and [C], as they are expected, except from their regular tasks, to also oversee the computer, in order to detect when their colleagues' problems arise. This initiative strengthens the interconnection between the employees, as problem detected may be cured with assistance

from a colleague. Spear and Bowen (1999) emphasise the importance of a system where activities are connected, to eliminate confusion of who provides what to whom and when. At [A], the nurse responsible of the telephone is also responsible of assisting the doctor if needed, which may lead to a telephone left unmanned. This illustrates double working roles with incompatible accountability, which may affect the patient as well as the colleagues negatively.

5.2.2 Level out workload

According to Liker (2004) it is essential to level out workload in order to avoid overburden of people and the health centres seem to have managed this challenge to various degrees. In line with Brandt (2013), different scheduling has been a way to handle the variation. [A] has done some changes in the staffing schedule; though they still sometimes have problems with work overload in the mornings as the lab tests need to be sent to Sahlgrenska hospital by lunch. Moreover, at the same time as they have introduced a new triage system for better handling the inflow of patients, the process to handle patients has not been evaluated due to a lack of time.

At the three other health centres they have made more time for emergency visits on the days they know are busier, in order to meet the different patient flows. At [B] this adaptation seems to meet the patient flows as DiB highlights that most people that need to come through, actually do. This is also confirmed by NuB, who stresses that they adapt their schedules after the patients' requests. Although DiB stresses that you can never fully foresee and meet some of the unexpected variations in flow. At [C] they have made certain that the assistant nurses are multi-tasked through rotating positions, which makes them more flexible and enables them to handle unexpected situations. At [D] they have taken the adaptation a step further, as they also adapt the schedules and manning according to hectic periods during the year combined with requesting the employees not to take vacation during these periods, which is reasonable also to DoD. The acceptance of such a request can be identified as a form of social accountability (Sinclair, 1995) as it may be a consensus and seen as good manner among the employees.

Spear and Bowen (1999) explain how certain activities connect in a system with one another, creating a customer-supplier relationship in each connection between the person responsible of the activity and the receiver, where standardisation of the activity will assure that expectations will be met and performed. [D]'s and [C]'s system with patients grouped by date of birth is such a system where the patient as far a possible is to see the same doctor, which benefits the patient. This can be seen as a process to fulfil patients' needs and increased quality and safety of the healthcare.

5.2.3 Standardisation

Various authors; Brandt (2013), Bicheno (2008), Liker (2004), Spear and Bowen (1999) enunciate standardisation as the foundation of continuous improvement. The directors at [A], [B] and [C] express that standards are set as a mutual best way to perform a task. At [C] the

standards seem to be followed. NuC have not heard any colleagues complain about the standards and think they are followed to a great extent, because if not followed, errors will soon arise. DiC says that the standards improve the structure and NuC thinks the standards make tasks easier. DiC expresses that, when setting a standard, it is discussed at both the cross-professional meetings and the meetings by profession to assure that everyone have their say. Thus, to follow jointly developed standards seem to be a commonly agreed norm; and such organisational ordinations may be explained by social and hierarchical accountability (Roberts, 1991).

DiB and NuB stress that standards have improved the quality of healthcare. Though, the employees at [A], [B] and [D] seem to have different perceptions of standards as the standards are not always followed. NuB expresses that the nurses most often follow the standards, but that the doctors sometimes abandon the standards when it e.g. regards questions about alcohol consumption as such questions are difficult and may be embarrassing to raise with a patient. DiA emphasises that everyone affected by a standard is aimed to be in the discussion when setting the standard and that everyone can participate and raise his or her concern if not agreeing on a standard. Even so, not everyone unhappy with a standard does; instead DiA and DoA say some “*forget*” to use the standards. In addition NuA says that her colleagues seldom follow the mutually agreed standards and thinks this might be because of laziness, as the standards may take a little longer time than to act as they like. However DoD stresses that you cannot deviate too much in your behaviour, as it is not acceptable among colleagues. The reason why the standards are followed when followed may be explained by social accountability (Roberts, 1991) created by norms of good manner and what is acceptable.

Henceforth, there are different explanations to why people abandon standards. Bicheno (2008) emphasises that when people abandon a standard it is a sign the standardisation has been driven too far, as they do not feel it supports them in their work. In addition, Peterson et al. (2009) stress that only tasks that are repetitive are to be standardised and not those that demand creativity. On the other hand, when employees abandon organisational orders and rely more on their own knowledge and moral rather than what is jointly agreed, an explanation might be that individual accountability is given greater prominence than social and hierarchical accountability (Roberts, 1991). In addition, Checkland et al. (2004) might have another explanation to why e.g. the doctors at [B] sometimes neglect the standard to ask about alcohol consumption. They emphasise that accountability to society, in terms of improved public health might conflict with the doctor’s personal motto of ethics or privacy. Thus, this might be the reason why people abandon the standards.

Further, Liker (2004), as well as Brandt (2013), stresses that for a standard not to be perceived as a constraint, it is important that it is set by the employees who will perform the task and that the standard can be changed when a better approach is found. [C] has changed the standards many times, as better and easier ways have been detected. Also at [B] the importance of evaluation is highlighted. However, [A] and [D], have expressed that they could and should evaluate their standards more than they do.

5.3 Outcome

Graban (2008) points out that the focus on major problems that often exist on an external level, e.g. problems regarding political and financing issues, might deter people from taking action, i.e. may hinder the lean initiative to set root. Even though all health centres act on the financing model as the overarching control signal, none of the health centres consider frameworks or regulations such as the financing model to oppose their lean work. None of the directors see the financing model as an antagonist to lean, but see the necessity to work along with it, as a parallel tool to achieve fulfilments of requirements from the top, with as little effort as possible [D]. For example, structured checklists for control of the quality indicators [DiD] and that lean has led to reduced uncertainty, which has helped to reduce costs through a more sound use of the resources [DiC]. Other outcome mentioned is greater engagement [A], better communication [A, B, D], more structured and thoughtful processes that gain the patients [A, B, C, D], reduced rework [B], better accessibility for patients [D], capacity release [C, D] but also a more demanding workplace where increased responsibility is required [A, B]. Although the directors, except [C], do not have any concrete examples of how lean has improved their financial situation, all directors think lean has the ability to contribute to improved finances, and DiB highlights that their financial situation would have worsened if it was not for the lean initiative. The examples above suggest that most directors and employees see the preconditions and potential to make improvements based on lean guidelines. At the same time as employees express that healthcare is not always fully adapted to what they personally think would be most beneficial to the patients, it is clear that other stakeholders influence what care is provided, no matter if it coincides with the patients, or not.

6. Conclusion

The purpose of the thesis is to increase the understanding of the health centres' experience of lean and to examine the challenges of combining lean and the existing financing model, which has been displayed in a case study with interviews at four health centres.

Liker (2004) emphasises the importance of continuously investing in people to facilitate continuous improvements. A precondition is that the directors of the health centres are able and willing to allocate time for improvements, such as time for meetings. Brandt (2013) and Miller (2005) state that commitment from top management, is essential in order to help the whole organisation to embrace lean, which mean they have to think it is justified to spend more time on meetings, which not always have been the case [PsB]. Also many employees argue that lean could have contributed even more, if they had had more training days which is requested by most responding employees. In these cases, the health centres' preconditions in terms of financial and human resources have been crucial, as lack of resources hinder lean initiatives. This is also stressed by Hines et al. (2010) who argue that in order to make change possible, the right competencies and resources are needed. Hence, lack of financial resources has placed accountability to the financing model above accountability to lean. However, there are examples [B] where the accountability to ethics of the profession and to patients is placed above, which indicates that the preconditions for lean to contribute to health centres are more than just those enabled by external preconditions.

Also employees who already think the working situation is stressful and have difficulty keeping up with their regular tasks tend to lose engagement to lean as they see the risk that it might add tasks or extra responsibility [A, D]. In contrast, other employees [DoD] would like even better participation. This illustrates the different embracement of lean, depending on the health centres' current situation and employees' perception of what lean will mean for them. If engagement, from any of these parties, has not been present, the improvement work has come to halt or stagnated. Through improvements of working methods such as jointly developed standards, lean has the potential to contribute to health centres in various ways. It is required that the employees feel it is worth following them, which does not always seem to be the case [A, B, D]. For lean to be understood and set root, it needs commitment from managers (Brandt, 2013). In addition, Brandt (2013) emphasises the importance of changing a standard when a better approach is found. However, these two preconditions seem to be absent in some cases [A, D].

Because today's relationship with the hospitals explicitly needs improvement [B, A], this relationship is not perceived as enabling lean to contribute to the health centres, sometimes due to financial incentives [A]. According to Hood (1995) the intention with a division of the units in the public sector is for the units to be more competitive. Though, a consequence seems to be that it is difficult to cooperate, as the division creates accountability for each unit

to achieve financial results. In contrary, there are examples [B, C, D] of successful cooperation with other health centres, as there are no direct financial incentives conflicting.

The financing model sometimes affects strategic and operational decisions and contributes to a situation where the healthcare sometimes is adjusted after what earns the most revenues [A]. This can be understood by their critical financial situation, which further reinforces the hierarchical accountability to the financing model and is backed by Liker (2004) who states that different types of short-term myopia may hinder lean in organisations. There is also a pronounced criticism that accountability created by the financing model creates additional administration. This is, among several employees and directors, perceived as unnecessary, time-consuming and sometimes patient-unfriendly as it risks shifting focus from the patient's real problems. There is also a criticism of providing care because of wrong reasons, in contradiction to the employees' own beliefs of the patients' best. Despite this criticism from the employees, registration and measurements are today strictly conducted, and the balance of the required procedures to follow and their own common sense is disturbed (Liker, 2004), as health centres' future existence rely on this type of administration.

Even though some employees and directors put criticism to the financing model, it is also defended and justified to enable safe and equal healthcare from a patient perspective [DiA, DiB]. This may be explained by Roberts (1991; 2009) argumentation that accountability linked to existing measures and requirements risks to reward specific healthcare and therefore influence employees to subconsciously justify and encourage specific actions. This might challenge their lean work as it might oppose the lean philosophy, where customer focus is aimed to result from the organisations' long-term values.

Finally, lean seems to have potential to contribute to health centres, as many actions taken have led to positive outcomes at the health centres, both internally and externally. However, even though none of the health centres consider the financing model to oppose their lean work as all responding directors and employees claim that continuously improvements are always necessary and of good, it is obvious that the financing model is challenging the lean initiatives in various ways. The health centres are subject to accountability to many different stakeholders, such as patients, colleagues, managers and the financing model. Hence, accountability to lean is yet another. This creates a jumble of different accountability that employees need to take into consideration in their daily work, which due to an eventual conflict may be hard to balance. Clear is, as the financing model is considered crucial to the health centres' survival, its power is strengthened and enables accountability through hierarchies (Robert and Scapens 1985) and thus the accountability to respond to it, in many situations is placed above lean.

As a result of the perception of lean and the perceived challenges of working according to lean in parallel with the financing model, we conclude that most of the health centres' lean work have come to focus on overall improvements, such as improved meetings, communication and processes, rather than the more deeply rooted lean philosophy emphasised by Liker (2004); however, still beneficial for both patients and employees.

7. Further Research

Deriving from the findings this thesis has presented, there are many interesting areas for further research. First of all, as this thesis partly investigates how employees at Swedish public health centres perceive the challenges of working according to lean in parallel with the existing financing model, and as this study is based on a case in VGR, it would be of interest to do the same research in another region. This would be of interest because the financing model is set on a regional level and hence differ between the regions. If doing a study of a region with a different financing model than VGR, it would be of interest to compare the results with the findings of this study.

Second, as this thesis also investigates the perception of lean among the employees at Swedish health centres, and as the lean work takes place within the units separately, it would be of interest to investigate the perception of lean when crossing units. Thus, it would be interesting to build a case study on a health centre where the lean work is integrated with a hospital or another unit such as the elder care and what the preconditions are for such collaboration. Moreover, apart from investigating a lean collaboration across units, it is also relevant to investigate a lean collaboration crossing departments, because e.g. at a hospital, patients are moved around for tests between departments and hence it is the process through the whole hospital that is important to overlook in order to find the big time savings.

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9. Appendices

9.1 Explanation of abbreviations

NPM: New Public Management

VGR: Västra Götalandsregion (Region of Västra Götaland)

9.2 Questionnaires

9.2.1 Questionnaire: Pilot study in Swedish/ translated to English

- Befattning, bakgrund, år i organisationen? / **Position, background, years in organisation?**
- Vad innebär lean för dig? / **What does lean mean to you?**
- När infördes lean och på vems initiativ? / **When was lean implemented and at whose initiative?**
- Vad var ert mål med att införa lean? / **What was your objective of implementing lean?**

Filosofi/ **Philosophy**

- Har vårdcentralens övergripande värderingarna ändrats i och med lean och i så fall hur? / **Have the health centre's overall values changed with lean and if so, how?**
- Hur arbetar ni med transparens och visualisering, nu jämfört med hur det var tidigare? / **How do you work with transparency? and visualisation, now compared to before?**
- Stöds en långsiktig lean-filosofi, grundad på era värderingar, av andra ramverk och mål? / **Do other frameworks and goals support a long-term philosophy, based on your values?**

Processer/ **Processes**

- Hur har era arbetsmetoder ändrats i och med lean och vad är i så fall motivet till förändringen? / **In what way has your working methods changed since lean and what was the motive of the change?**
- Hur arbetar ni med att jämna ut de patientströmningar som finns på vårdcentralen? / **How do you work to level out the different patients flows at the health centre?**
- Har ni ändrat sammansättningen av kompetenser, arbetsroller och schemaläggning i och med lean, och i så fall hur? / **Have you changed the composition of competencies, job roles and scheduling since lean and if so, how?**
- Har personalens eller utrustningens placering förändrats i och med lean? / **Have the employees' or the equipment's placement been changed, since lean was introduced?**
- Hur arbetar ni med standardisering? / **How do you work with standardising?**
- I vilka processer använder ni er av standardisering? / **In what processes do you use standards?**
- Vilka sätter standarden och hur identifieras om standardiseringen behöver ändras/förbättras? / **Who sets the standard and how do you identify if the standard needs to be changed/ improved?**

- Hur har aktiviteterna ändrats i och med lean och vad är i så fall motivet till förändringen? / **In what way have the activities changed since lean, and what have the motives to the changes been?**
- Hur arbetar ni med ansvarsfördelning för respektive aktivitet? / **How do you work with responsibilities of teach activity?**
- Vilka verktyg använder ni för att utföra aktiviteterna och hur skiljer sig dessa mot innan lean? / **What tools are you using in order perform the activities and have they been changed since lean**

Medarbetare och partners/ **Employees and partners**

- Hur arbetar ni med utbildning för att få medarbetarna att förstå filosofin bakom lean? / **How do you work with education to enable the employees to understand the philosophy of lean?**
- Anser du att medarbetarna har en förståelse för lean som filosofi och hur gör ni för att upprätthålla/förbättra den förståelsen? / **Do you consider the employees to have an understanding of lean as a philosophy and what do you do to maintain/ improve that understanding?**
- Hur har detta påverkat möjligheten att genomföra förändringarna kopplade till lean? / **How has this affected the ability to implement changes related to lean?**
- Hur har samarbetet med parter utanför vårdcentralen förändrats? / **How has the cooperation with partners outside the health centre changed?**

Problemlösning/ **Problem solving**

- Har beslutsfattandet förändrats i och med lean och vad var i så fall motivet till detta? / **Has decision-making changed since lean, and what have the motives been?**
- Hur uppmärksammas problem i det dagliga arbetet och finns det rutiner för hur problem hanteras? / **How are problems detected in the daily work and are there routines for handling of eventual problems?**

Utfall av lean/ **Outcome of lean**

- Uppfattar ni att vårdtagarna har märkt av några effekter av ert lean-arbete? / **Do you think that the patients have noticed any effects of your lean work?**
- Vilka upplevda och konstaterade effekter kan ni se av lean-satsningen? / **What effects have you been able to perceive and note of the lean initiative?**
- Hur lång tid tog det innan ni såg effekter? / **How long did it take o see effects?**
- Har lean lett till frigörande av kapacitet/ resurser? / **Has lean led to capacity release?**
- Om ja, i vilka processer? Hur? / **If yes, in what processes? How?**
- Hur använder ni den frigjorda kapaciteten? **How do you use the capacity released?**
- Vad har det fått för effekter på vårdcentralen? / **What is the effect for the health centre?**
- Om nej, vad tror du är anledningen till det? / **If no, what do you think is the reason?**
- Anser du att lean har gjort er till en mer konkurrenskraftig vårdcentral? Varför/ varför inte? / **Do you think lean has made you a more competitive health centre? Why / why not?**
- Hur har lean påverkat vårdcentralens ekonomi? / **How has the health centre's finances been affected of lean?**

- Har intäkterna ökat sedan ni började arbeta med lean? / **Have the revenues increased since you started working with lean?**
- Om ja, vilka intäkter och varför? Ser du en koppling mellan ökade intäkter och satsningarna på lean, och hur ser i så fall denna ut? / **If yes, what revenues and why? Do you see a linkage between increased revenues and the initiative of lean, and if so, how?**
- Om nej, tror du att lean skulle kunna bidra till ökade intäkter, och i så fall hur? / **If no, do you think lean may contribute to increased revenues, and if so, how?**

9.2.2 Questionnaire: interview with directors in Swedish/ translated to English

- Befattning, bakgrund, år i organisationen? / **Position, background, years in organisation?**
- Vad innebär lean för dig? / **What does lean mean to you?**
- När infördes lean och på vems initiativ? / **When was lean implemented and at whose initiative?**
- Vad var ert mål med att införa lean? / **What was your objective of implementing lean?**

Filosofi/ Philosophy

- Vem driver dagens arbete med lean på vårdcentralen och finns det stöd uppifrån? / **Who leads today's work with lean at the health centre and is there support from the top?**
- Hur gick uppstarten av lean till? / **How did the startup of lean come about?**
- Har vårdcentralens övergripande värderingar ändrats i och med lean och i så fall hur? / **Have the health centre's overall values changed with lean and if so, how?**
- Stöds en långsiktig lean-filosofi, grundad på era värderingar, av andra ramverk och mål? / **Do other frameworks and goals support a long-term philosophy, based on your values?**
- När ni beslutar om förändringar gällande vårdcentralen och den erbjudna vården, vad ligger till grund för beslutet? / **Once you decide on the changes concerning the health centre and the offered care, what is the basis for decision?**
- Tas sådana beslut med grund i vårdcentralens långsiktiga värderingar eller tas beslut snarare efter aktuella förutsättningar? / **Are such decisions taken based on the health centre's long-term values or rather by current conditions?**
- Har grunden för beslut förändrats sedan ni började arbeta med lean? / **Have the basis for decisions changed since you started working in accordance with lean?**
- Påverkar finansieringsmodellen hur ni har lagt upp vården på er vårdcentral? / **Does the financing model affect how the provided care is organised at your health centre?**

Processer/ Processes

- Hur har era arbetsmetoder ändrats i och med lean och vad är i så fall motivet till förändringen? / **In what way has your working methods changed since lean and what was the motive of the change?**
- Hur arbetar ni med transparens och synliggörande av patientens väg genom vårdcentralen, nu jämfört med hur det var tidigare? / **How do you work with transparency now compared to before, to assess patients' way through the health centre?**
- Hur synliggör ni vad som går bra/ dåligt för att uppmärksamma eventuella problem? / **In what way do you make visible what is going well/ bad, in order to detect potential problems?**

- I vilket stadie uppmärksammas problem? / **In what stage are problem observed and noticed?**
- Finns det rutiner för hur problem hanteras? / **Are there routines for handling of eventual problems?**
- Hur sammanlänkas personalens arbete och aktiviteter med varandra?/ **How do the different employees' work and activities interconnect?**
- Finns det en tydlighet i vem som ansvarar för vad? / **Is there clarity in who is accountable of what?**
- Hur arbetar ni med att jämna ut de patientströmningar som finns på vårdcentralen? / **How do you work to level out the different patients flows at the health centre?**
- Har ni ändrat sammansättningen av kompetenser, arbetsroller och schemaläggning, för att hantera patientströmningar, i och med lean och i så fall hur? / **Have you changed the composition of competencies, job roles and scheduling for managing patient flows, since lean and if so, how?**
- Har personalens eller utrustningens placering förändrats i och med lean? / **Have the employees' or the equipment's placement been changed, since lean was introduced?**
- Hur ser bokningssystemet för patienter ut och vad är tanken bakom det aktuella bokningssystemet? / **What is your booking system and what is the thought behind it?**
- Har patienten själv möjlighet att påverka tid för sitt besök? / **Does the patient have any possibility to influence the time of his/her visit?**
- Hur hanteras patienten när den kommer till vårdcentralen? Har ni något triageringssystem?/ **How are patients handled when they enter the health centre? Do you have any triage system?**
- Finns det något system för prioritering mellan olika patienter, baserat på om läkaren/ sköterskan som patienten ska träffa i nästa steg är redo att ta emot denna? / **Is there any system for different prioritisation patients, based on if the doctor/ nurse who the patient will meet with next, is ready?**
- Hur arbetar ni med standardisering? / **How do you work with standardising?**
- I vilka processer använder ni er av standardisering? / **In what processes do you use standards?**
- Vilka sätter standarden och hur identifieras om standardiseringen behöver ändras/förbättras? / **Who sets the standard and how do you identify if the standard needs to be changed / improved?**
- Har ni någon rutin för utvärdering av införda standarder? / **Do you have any routine for evaluation of implemented standards?**
- Använder ni er av några specifika lean-verktyg? / **Do you use any specific lean tools?**

Medarbetare och partners/ **Employees and partners**

- Anser du att medarbetarna har en förståelse för lean som filosofi och hur gör ni för att upprätthålla/förbättra den förståelsen? / **Do you consider the employees to have an understanding of lean as a philosophy and what do you do to maintain/ improve that understanding?**
- Hur har detta påverkat möjligheten att genomföra förändringarna kopplade till lean? / **How has this affected the ability to implement changes related to lean?**

- Hur sker och vem ansvarar för kommunikationen gällande lean på vårdcentralen? / **How and who is responsible of communicating lean at the health centre?**
- Ges det utrymme och tid för kunskapsutbyte mellan och inom de olika yrkesrollerna på vårdcentralen och i så fall hur? / **Is there any time dedicated to knowledge sharing between and within the different professions at the health centre, and if so, how?**
- Anser du att du som verksamhetschef har förståelse för och inblick i de dagliga processerna “på golvet” och har detta på något sätt förändrats i och med lean? / **Do you see yourself as a director who has an understanding of, and insight into, the daily processes at the health centre, and has this somehow changed since lean?**
- Hur har samarbetet med parter utanför vårdcentralen förändrats? / **How has the cooperation with partners outside the health centre changed?**
- Om samarbetet har förändrats, vad har effekten blivit av denna? / **If the partnership has changed, what is the effect of this change?**

Problemlösning/ **Problem solving**

- Vem kan ta beslut om vilka problem som ska hanteras och vilken lösning som ska antas? / **Who can take decisions about what issues to be addressed and what solution to be adopted?**
- Hanteras all problemlösning på vårdcentralen internt eller involveras även externa resurser? **Is all problem-solving at the health centre internally handled or are also external resources involved?**
- Vem “äger” problemet till dess att det fått en lösning? / **Who "owns" the problem until it is resolved?**
- Har sättet för problemlösning och vem som kan eller ska agera på problem förändrats i och med införandet av lean? / **Has the method for solving problems and who can or should act on problems, changed with the introduction of lean?**

Utfall av lean/ **Outcome of lean**

- Uppfattar ni att vårdtagarna har märkt av några effekter av ert lean-arbete? / **Do you think that the patients have noticed any effects of your lean work?**
- Anser du att lean-arbetet har gjort er till attraktivare vårdcentral ur vårdtagarnas synvinkel och i så fall varför? / **Do you think that lean has made you a more attractive health centre from patients' point of view, and if so, why?**
- Anser du att lean- arbetet har gjort er till attraktivare vårdcentral som arbetsplats och i så fall varför? / **Do you think that lean has made you a more attractive health centre from the employees' point of view, and if so, why?**
- Har lean lett till frigörande av kapacitet/ resurser? / **Has lean led to capacity release?**
- Om ja, i vilka processer? Hur? / **If yes, in what processes? How?**
- Hur använder ni den frigjorda kapaciteten? **How do you use the capacity released?**
- Vad har det fått för effekter på vårdcentralen? / **What is the effect for the health centre?**
- Om nej, vad tror du är anledningen till det? / **If no, what do you think is the reason?**
- Hur har lean påverkat vårdcentralens ekonomi? / **How has the health centre's finances been affected of lean?**

- Ser du någon koppling mellan vårdcentralens kostnader/ intäkter och satsningarna på lean och hur ser i så fall denna ut? / **Do you see any link between the health centre's costs/ revenues and the lean work, and if so, how?**
- Har kostnaderna/intäkterna minskat/ökat sedan ni började arbeta med lean? / **Have the costs/ revenues decreased/ increased since you started working with lean?**
- Vilka kostnader och varför? Hur lång tid tog det innan ni såg effekter och har dessa förändrats över tid? / **What costs and why? How long time did it take before you saw the effects and have these changed over time?**
- Vilka andra upplevda och konstaterade effekter kan ni se av lean-satsningen? / **What other effects have you been able to perceive and note of the lean initiative?**
- Anser du att lean har gjort er till en mer konkurrenskraftig vårdcentral? Varför/ varför inte? / **Do you think lean has made you a more competitive health centre? Why / why not?**

8.2.3 Questionnaires: interviews with employees in Swedish/ translated to English

The questions are coded with A to D, depending on which health centre/ centres the questions concern.

- (A, B, C, D) Befattning, bakgrund, år i organisationen? / **Position, background, years in organisation?**

Filosofi/ **Philosophy**

- (A, B, C, D) Hur upplevde du initiativet att införa lean? / **How did you experience the initiative to implement lean?**
- (A, B, C, D) Tänker du som medarbetare på finansieringsmodellen, ex. kvalitetsindikatorerna när du arbetar? Upplever du någon konflikt i detta? / **Do you, as an employee, think of the financial model, e.g. the quality indicators, in your daily work? Do you experience any conflicts with how you otherwise would do your job?**
- (A, B, C, D) Anser du att finansieringsmodellen har påverkat vilka behov ni har lyssnat till? / **Do you perceive that the financing model has had an impact on what needs you have met?**

Processer/ **Processes**

- (A) Vad var motivet till att ni drog ner på drop-inen till förmån för bokade tider? Hur ser du på det? / **What was the motive to the cut down the drop-in in favor of booked appointments? What do you think of this initiative?**
- (A) Er mötestid har utökats. Hur upplever du det att ni ska lägga mer tid på förbättringsmöten och handlingsplaner när ni redan har ont om resurser? Känns det befogat? / **Your meeting hours have been extended. What do you feel about spending more time on improvement meetings and action plans as you already are short of resources? Does it feel justified?**
- (A, B) Ni har infört speciella tider för sköterskan och läkaren att diskutera kring patientfallen. Hur upplever du det, känns det befogat att lägga den tiden på det? / **Lately you have introduced special times for the nurse and doctor to discuss patient cases. How do you experience it, does it feel justified to spend time on it?**
- (A) Ni har nu tillgång till ett digitalt system med all statistik om patienterna och deras diagnoser. Använder ni som anställda det och har kraven förändrats på hur ni ska använda det? / **Now you have access to a**

digital system with statistics of patients and their diagnoses. Do you employees use it and have the requirements on how you are supposed to use it changed?

- (D) Tidigare "ägde" läkaren sin kalender. Hur ser du på att vårdcentralen nu ska ses som ett system där alla delar ska synkroniseras och är beroende av varandra? / **Earlier the doctor "owned" his/her own calendar. What do you think of the fact that the health centre now has to be seen as one united system in which all parts are synchronised and dependent on each other?**
- (C, D) Schemaläggningen har ändrats med anpassning efter högre tryck på vissa veckodagar och vissa perioder, hur ser du på det och hur har det påverkat dig? / **The scheduling has changed with adaptation to higher patient flow on certain days of the week and certain periods, how do you find it and how has it affected you?**
- (D) Ett drop-in besök ska ta 10 minuter, upplever du någon problematik med denna tidsbegränsning? **A drop-in visit is supposed to take 10 minutes; do you experience any problems with this time limit?**
- (A, B, C, D) Hur upplever du de framtagna standarderna? Följer man standarderna? Finns det standarder som egentligen upplevs som onödiga? Förändras de då och på vems initiativ sker det då? / **How do you perceive the standards developed? Do employees' follow the standards? Are there standards perceived as unnecessary? Are they changed redesigned and on whose initiative?**

Problemlösning/ **Problem solving**

- (A, B, C, D) Mer ansvar läggs på att problem och förändringar ska lyftas och skötas av er i personalen, snarare än chefen. Hur upplever du det? Ser du någon problematik kring det? / **More responsibility is placed on the employees, rather than the director, regarding problems and changes to be lifted and handled. How do you feel about it? Do you experience any problems with this?**
- (C) Under stressiga perioder tillägnas extra mycket tid till möten för att diskutera hur man ska hantera den ökade stressen. Upplever du att denna extra tid och sådana diskussioner faktiskt minskar stressen? / **During stressful periods, extra time is dedicated to meetings for discussion of how to handle the added stress. Do you feel that this extra time on such discussions actually reduces stress?**

Medarbetare och partners/ **Employees and partners**

- (A) Upplever du att din arbetsroll ställer krav som ibland är motstridiga med varandra? / **Do you feel that tasks of your work role sometimes may be conflicting with one another?**
- (B, D) Er mötesstruktur ska också ha förändrats. Hur upplever du det? Känns det befogat att lägga den tiden på möten? / **Your meeting structure has been changed. How do you experience it? Does it feel justified to spend time on these meetings?**
- (B, C, D) Har lean bidragit till någon förändring i rollerna mellan läkare och sköterska? / **Has lean contributed to any change in the roles as doctor and nurse?**
- (D) Ni har morgonmöten, där bara sköterskorna närvarar, hur kommer det sig att inte läkarna närvarar? / **You have morning meetings, where only nurses are present, how come the doctors do not attend this meeting?**

Utfall av lean/ **Outcome of lean**

- (A, B, C, D) Anser du att lean-arbetet har gjort er till en attraktivare vårdcentral ur vårdtagarnas synvinkel och i så fall varför? / **Do you think that lean has made you a more attractive health centre from patients' point of view, and if so, why?**

- (A, B, C, D) Anser du att patienternas behov har fått större fokus nu än tidigare i och med lean? **Do you think that the patients' needs have gotten greater focus now, than before lean?**
- (A, B, C, D) Anser du att lean- arbetet har gjort er till attraktivare vårdcentral som arbetsplats och i så fall varför? / **Do you think that lean has made you a more attractive health centre from the employees' point of view, and if so, why?**