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The influence of institutional factors on contractual incentives regarding different stakeholders in the public health-care sector

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Preface

This thesis represents the final stage of my master study Business administration with the specialization in Purchasing and supply chain management at the university of Twente. I would like to thank several people for their help and support during this period.

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Remco Marsman

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Abstract

Chronic Obstructive Pulmonary Disease (COPD) and heart failure are diseases with both high hospital and nursing expenditures. With the ageing of the global population, COPD and also heart failure, are very likely to become more frequent. The amount of patients will increase, in one out of three cases COPD will be the leading cause of death by 2020. The healthcare sector could have a lot of benefits if they change from direct service provision to providing services by contract. When they deliver these services on contract, healthcare providers could arrange more efficiency, cost savings, and improved effectiveness.

The aim of this research is to formulate different kind of institutional factors which could influence contractual incentives according to different stakeholders. There is not much literature about the influence of institutional factors on contractual incentives, therefore this research will give important insights on this topic. Besides this, this research investigated how insurance companies could influence incentives themselves. The results were derived from conducting 12 interviews with different stakeholders in the healthcare sector. By doing this, a comprehensive view is created about the influence of the different institutional factors on the effectiveness of contractual incentives.

The results show that motivation of employees and participation of employees in the design of the contract are the most important factors. When these two factors are high, this fosters the effectiveness of contractual incentives. Besides this, this research showed that when the feeling of ownership of financial incentives by professionals is low, this has an negative effect on the effectiveness of the financial incentives. It is important to create this feeling of ownership by the professionals, because they have to achieve the incentives in their work. This is the part were insurance companies could influence the incentives, by creating this feeling trough participation of the professionals, or individual awarding the professionals when achieving the incentives.

This research contributed to existing literature in several ways. There is not much existing literature about the influence of institutional factors on contractual incentives. This research gives new insights in this topic. This research also contributes on the aspect of telehealth. The results showed that all professionals were motivated, but it is still something they have to do next to their normal working activities. This is a major problem in telehealth, and this research showed it is hard to break the routine of professionals.

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COPD	Chronic Obstructive Pulmonary Disease
ACOs	Accountable Care Organisations
GDPR	General Data Protection Regulation
AVG	Algemene Verordening Gegevensbescherming
IPAD	Portable computer for patients
PGO	Persoonlijke Gezondheids Omgeving
GOLD	Global Initiative for Chronic Obstructive Lung Disease

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1.Introduction

Chronic Obstructive Pulmonary Disease (COPD) and heart failure are diseases with both high hospital and nursing expenditures. Total healthcare cost of COPD in the Netherlands were in 2015 approximately €415 million (RIVM 2015) and for heart failure this was €930 million (Volksgezondheidszorg 2015). With the ageing of the global population, COPD and also heart failure, are very likely to become more frequent (Mannino and Buist 2007). The amount of patients will increase and according to epidemiologists, in one out of three cases COPD will be the leading cause of death by 2020 (Henoch et al. 2016). These kind of diseases will be best managed in an integrated and comprehensive way, with careful attention to prevention and cost-effectiveness interventions (Wagner 2004). By doing this the healthcare will be both affordable and effective.

The care for these patients will be managed through a complex system between the patient, the insurance company and the healthcare companies. This is a complex systems because there is more or less a triadic system, with the insurance company as a middleman (Li and Choi 2009). The insurance company is a "bridge" between the patient and the healthcare supplier. The insurance company must assure that patients have free access to the care they need, to assure this they must arrange contracts with the healthcare companies. Since the amount of patient will grow the next decade, and to keep the care affordable and efficient, insurance companies need to arrange new contracts with healthcare providers. The healthcare sector could have a lot of benefits if they change from direct service provision to providing services by contract (Trevor L. Brown and Potoski 2003). When they deliver these services on contract, healthcare providers could arrange more efficiency, cost savings, and improved effectiveness (Trevor L. Brown and Potoski 2003). All of this is needed to deliver good care for the growing number of patients. Incentives should motivate people to exert additional effort, which in turn should improve task performance (Hughes, Yohannes, and Hillig 2007). An incentive could be defined as: "an incentive (a payment) that is established based on an optimal sharing of a project's equivalent monetary outcome (expressed relative to a benchmark or target that is desired by the owner), while giving the contractor the motivation to align its interests with those of the owner. An outcome might, for example, be expressed with respect to cost underruns or overruns relative to a target cost, late completion cost or early completion saving relative to a target duration, and monetary value of quality of work done compared with a target level of quality" (Hosseinian and Carmichael 2013). An

incentive could be in two ways, paying less when a certain goal is achieved, or paying more when the goal isn't achieved. There are different kind of incentives, financial and non-financial. These different kinds of incentives could be used to achieve the best possible outcome. Since there are many kinds of incentives, it is difficult to assure that the right incentives are inserted in a contract. Inserting the right incentives in contract management will be further discussed in the theory part.

The aim of this research was to formulate different kind of institutional factors which could influence contractual incentives according to different stakeholders. It is important to consider the different stakeholders in a contract, because they all have an influence on the outcome of the contract. By considering all these stakeholders, it was possible to create a comprehensive view of the influence of institutional factors on the effectiveness of contractual incentives. It was also interesting to see whether the different stakeholders are aware of the different incentives in the contract. There is not much literature about the influence of institutional factors on contractual incentives, therefore this research will give important insights on this topic.

Previous papers mention that institutional factors could influence the contractual incentives for being effective (Singh 2002), (Kshetri 2007). Kshetri argues that institutional factors could obstruct contracts to be effective. They conducted a research on contract management in business process and information technology. They found several institutional factors that obstruct contracts to be effective. Examples of this kind of obstructive institutional factors are a weak legislative environment and weak rules of law. This makes clear that institutional factors could influence the effectiveness of contractual incentives, and therefore the effectiveness of contract. Contracts including incentives are most often be generated according different theories. One theory that could be used to compose a contract is the agency theory, but according to literature the agency theory should be combined with the institutional theory (Alexander 2005). When combining these two theories (a lack of) organisational changes could be explained.

Another interesting part to investigate was how insurance companies could influence incentives themselves. They inserted certain incentives in a contract, financial and non-financial, to achieve the best possible outcome of the contract. An example of this outcome could be cost-savings, or a greater percentage of patients healed. The insurance company could influence the incentives in a certain contract, for example, by paying healthcare organisations more if they are willing to collaborate in innovations (Garber, Jones, and Romer

2006). In this way insurance companies promote innovation, what is needed to deliver the best and most efficient care (Garber, Jones, and Romer 2006).

Earlier research (Shou, Zheng, and Zhu 2016a) made clear that it is important to find out which institutional factors are affecting the contract a certain company has with another company. An example of the influence of institutional factors on contracts is the perceived legal enforceability. When there is lower perceived legal enforceability, there will be lower credibility of contracts in safeguarding one's interest. Consequently, firms could encounter contract ineffectiveness, the perceived limits of contracts in safeguarding interests and coordinating activities. So, when there isn't enough focus on the institutional factors, this could lead to disappointing results, and at the end termination of the contract. Understanding in which way different institutional factors could be obstructive to the incentives in a contract or on the other hand foster contractual incentives, is important to assure the best possible outcome of the contract. A special role in contracting could be for the so-called middlemen. There is not much known about the role and influence of the middlemen in the healthcare sector (Li and Choi 2009). There is a triadic relationship between customers, insurance companies and suppliers in the healthcare sector. Before the contract is established, the buyer (the insurance company (Shishkin 1999)) is the "bridge" between the supplier and the customer. When the contract is established this bridge position begins to decay, and there is more direct contact between the supplier and the customer. After implementing the contract, the insurance company loses its bridge position to the supplier, which means they also lose their leverage. To mitigate the risk of this leverage lose, the insurance company should continue to monitor the supplier, the customers and the relationship between these two parties (Li and Choi 2009). This research investigated the role of the insurance company in the triadic relationship with the customer and the supplier (Glinos, Baeten, and Maarse 2010).

Given the previous arguments, the research question for this research is:
In which way could institutional factors at healthcare companies influence the effectiveness of incentives in contracts according to multiple stakeholders and how could insurance companies influence the effectiveness of incentives themselves?

To answer the research question there are some sub questions:

1. Which contractual incentives are inserted in the contract between the insurance company and the different stakeholders in the healthcare sector?

2. Which institutional factors at the different stakeholders particularly influence the effectiveness of the contractual incentives?
    a. In an obstructive way
    b. In a fostering way
3. In which way could insurance companies influence the contractual incentives to increase their effectiveness, given the institutional factors at the different stakeholders?

This research contributes to the existing literature in several ways. First, this research is about healthcare triads, with a focus on the middleman. The existing literature has a lack of focus on the influence of the middleman in healthcare triads (Li and Choi 2009). The middleman could have a certain level of leverage over the supplier and the customer. With this leverage they could influence the contract themselves. An example of the influence of the insurance company is that they could steer the customers in behaviour and choice of supplier (Li and Choi 2009). With this influence insurance companies could influence the contract, and therefore the contractual incentives to be effective. This research investigated the influence and leverage of the insurance company on the contractual incentives. This research focussed on two sides of the triad, the insurance company and the healthcare providers. The third side, the customers couldn't be considered, because there is was no information available about the customers and it was not possible to get information about them. Besides this, this research also considered the opinion of the different stakeholders in the contract, about the influence of institutional factors on the effectiveness of contractual incentives. There is not much research that considered different stakeholders and their influence on contractual incentives, so this research gives new insights and contributes to the existing contract management literature on this topic.

Second this research has an contribution on the aspect of telehealth. This research showed that it is hard make a widespread implementation of telemedicine, because with wider implementation the effects of the innovation diminishes (Schug 2014). This research showed that the inclusion of patients is less stricter compared to a pilot version. Due to the fact that in a pilot version only the patients are selected who fit the treatment best, the effects of a pilot will never be repeated (Leon, Davis, and Kraemer 2011). Therefore the expectations when enrolling a pilot on a bigger scale should be less positive then the results in the pilot. This research contributed on this aspect of telehealth.

Another contribution to the existing literature is about the healthcare sector. Much of the existing research on institutional factors and agency theory is done in the private sector (Singh 2002), (Agrawal 2002), (Shou, Zheng, and Zhu 2016b). This research focussed on two companies in the healthcare sector. Companies in the healthcare sector also need to make money, but sometimes the care of patients is more important than making money. Therefore, contract management differs between the healthcare sector and the private sector. In the healthcare sector non-financial and hard to measure factors could be more important compared to the private sector. Examples of these factors are improving patient services and enhancing employee recruitment and retention (Ballou, Heitger, and Tabor 2003). Therefore, institutional factors might not be transferable from the private sector to the healthcare sector. This research gives new and additional insights on which institutional factors are important to consider when it is about contracting in the healthcare sector. For example information exchange is in the healthcare sector an important factor, while this factor is less important in the financial sector.

Third this research investigates which institutional factors have to be taken into account in contract management. There are several institutional factors that influences incentives in contracts. Earlier studies explored why contract management went wrong (Kshetri 2007), (Balakrishnan et al. 2010). Their conclusion was that most researchers neglected some important institutional factors, like the influence of the existing employees on contract management. Neglecting these parts leads to inefficient contracting, and at the end to terminating the contract. In this research the influence of existing employees are taken into account. For example, the role of medical specialists at stakeholder Z is investigated. These medical specialists have a partnership with the hospital, so they get payed per patient, and not a fixed pay (Koelewijn 2013). This could have an influence on the motivation of these specialists to participate in the InBeeld project. When the role of these specialists in this contract will be neglected, this could obstruct the contractual incentives to be effective. This research identified factors that were neglected in other studies and assess whether these factors are obstructive or on the other hand foster contractual incentives to be effective. Therefore, this research will provide insights in this topic and contributes to existing literature on institutional factors. The last part of this research is about how insurance companies influencing incentives themselves. They inserted certain incentives in a contract, financial and non-financial, to achieve the best possible outcome of the contract. This research gives insight

on how the insurance company could influence the contractual incentives themselves. There are several things the insurance company could do, which is described in the results section.

The practical relevance is that after this research the insurance company knows which institutional factors they have to take into account to make the financial and non-financial incentives in the contract work effectively. The results part of this research gives the insurance company clear insight on which institutional factors are obstructive, and how they could diminish these obstructing factors. By doing this they could create an more effective contract. By following the recommendations, the contractual incentives will be more effective, which was the purpose of the research. With the results of this research, the insurance company could evaluate the contract better and make adjustments to the contract, before implementing this in a wider context. Besides this they will also gain insight in how they could influence the contractual incentives themselves. They know what they could to reduce obstructive factors and make the contract a better co-creation of all different stakeholders.

2. Literature Background

In this chapter, several concepts and theories will be explained. First, there will be an explanation of the public healthcare sector and why this is a special sector compared to the private sector. Second, there will be a review on contract management. Contract management, in particular the incentives in a contract, are important because this could avoid the principal agent problem of different goals. The principal needs to provide an incentive to the agent to motivate the agent to act in the owner's interests. Since contract management must deal with the principal agent problem, the agency theory will be described after the contract management part in this literature review. Next, the institutional theory will be described. Institutional factors could influence the outcome of the contract, and therefore this theory should be considered during this research. After this there will be a review of the stakeholder theory, because this research will investigate the influence of institutional factors on the effectiveness of contractual incentives, according to different stakeholders. The last part will consist of a combination of all the theories and a research model will be presented, with the propositions underlying the research model.

2.1 The healthcare sector

The health care sector is a special sector compared to the private sector. Both sectors should make money, like every other company, because otherwise they could not exist. But the main difference between health care and private sector is the care for the patient. The healthcare sector has to a larger extend the special focus for the care of patients and clients, compared to the private sector. Sometimes the care for the patient overrules the cost focus. Besides this there are a few aspects on which companies in the private sectors differ from companies in the health care sector (Boyne 2002). The first aspect is that in the healthcare sector there are more monopolistic market structures. Companies in the healthcare sector typically have few rivals for the provision of their services. Most of the patients will go to the nearest hospital for their treatment. When a disease is more difficult to treat, they will go to the best hospital for that certain treatment, regardless of the distance. This is also encouraged by insurance companies, while they have only contracts with some hospitals who deliver this kind of specialised care. By doing this they could provide the best qualitative and efficient care (Enthoven and van de Ven 2007). When we look at the private sector, the amount of competition is a lot heavier. There are more companies who are competing for the same service. Another example of less competitive pressure in the healthcare sector is that companies in the healthcare sector often

are expected to collaborate with each other offering similar services and not compete for customers (Nutt and Backhoff 1993). They collaborate in the treatment for patients or collaborate in research for new medical treatments.

The second aspect of differences between the private sector and the healthcare sector is the amount of bureaucracy. Companies in the healthcare sector have to deal with more formal procedures for decision making, and are less flexible and more risk averse than their private sector counterparts (Bozeman and Kingsley 1998). Since companies in the healthcare sector have to deal with patients and their lives, there is much more regulation in this sector when we compare this with the private sector. When an insurance company purchases care for their customers/patients, the healthcare providers need to meet these regulations, otherwise the insurance company would not purchase their care at these companies.

Besides this the difference between the healthcare sector and the private sector is that public sector workers are intrinsically motivated to perform the desired outcomes (for example delivering quality in healthcare) without the need for financial incentives (Perry 2000). In contrast to private sector organizations, employees in the healthcare sector are motivated primarily by the idea of a "mission" rather than making profit (Besley and Ghatak 2003).

Concluding, the healthcare sector is a special sector, because besides making money, an important aspect is to give the patient the best possible care and heal the patient. This sometimes overrules the cost aspect and therefore it differs from the private sector. Another difference between the healthcare sector and the private sector is the amount of bureaucracy. The healthcare sector is much more regulated compared to the private sector. The last aspect of difference is about competition. When we look at the role of medical specialists there is also a more monopolistic market, with a less competitive structure. Due to the lack of competitive structure it is for insurance companies more difficult to assure an effective contract, which is also affordable for their clients. Therefore, it is interesting to investigate whether contracts in the healthcare sector are effective, and how they could be influenced. The insurance company could influence the contract, but principal-agent relationships and institutional factors could also influence the contractual incentives.

2.2 Contract management

The main focus of this research is to investigate which institutional factors could be obstructive or on the other hand foster contractual incentives. Therefore, it is important to

review the literature on contract management, with a focus on incentives in contracts and effective contracting. By doing this there will be more insight in this topic, and there will be better knowledge about the process of working towards a contract and monitoring contracts after implemented. After this there will be more insight in what is known and unknown about this topic.

2.2.1 History of contract management

Contract management is about the management of contracts with different kind of parties, for example with customers, employees or partners. Organisations are becoming more aware of the added value of well managed relationships with these different parties through contract management. To achieve added value and obtain the best possible outcome of the contract, contract management is a critical process. Contract management is defined as: "the planning, monitoring and control of all aspects of the contract and the motivation of all those involved in it to achieve the contract objectives on time and to the specified cost, quality and performance" (International association for contract and commercial management 2013). Contract management is important for companies because by doing this they could ensure that they receive what it needs and pays for (Schurgers et al. 2012). The last decade there have been several developments which have increased the importance of contract management for companies. This makes the relationship between the different parties in the contract more complex and needs to be managed properly through contract management. Additionally, performance measurement became more important, and therefore makes monitoring the performance agreed in the contract critical (Trevor L Brown, Potoski, and Van Slyke 2006). Due to the fact that there will be an ageing global population, there will be more patients to treat (Mannino and Buist 2007), (Henoch et al. 2016). To keep the care for these patient affordable and efficient, contract management will become a core competence for organisations in the healthcare sector (Provost and Esteve 2016). Next there will be an explanation about how contracts could be formed, and how effective contracts could be made.

2.2.2 Different concepts/frameworks of contract management

Due to the growing population and therefore the pressure to do more with less, governments and companies have moved from direct service provision to providing services by contract, so called contract management (Trevor L. Brown and Potoski 2003). The positive side of this shift is that this kind of contract management promote competitive contracting with promises

of efficiency, cost savings, and improved effectiveness (T. L. Brown and Potoski 2003). To achieve efficiency, cost savings, and improved effectiveness it is important to have the right incentives in a contract. When the right incentives are inserted, this could lead to these outcomes, because otherwise there will be sanctions against the contracting party. The question is what kind of incentives are good incentives to insert in a contact. There are different kind of incentives, the first one is a financial incentive. A financial incentive means that companies get for example payed based on their performance. An example of a financial incentive in a contract could be an agreement concerning bonuses for achieving the level of performance agreed and penalties for not achieving them. According to Hufen and Bruijn (Hufen and Bruijn 2016), one strength of this approach is that it offers clear, simple targets for addressing the complex problems faced by companies or governments. Financial incentives are an important factor in contract management, because motivate people to exert additional effort, which in turn should improve the task performance of companies (Bonner et al. 2000). The second kind of incentives are non-financial incentives. Using this kind of incentives will not result in a financial reward, but it could be an effective way in maximizing the outcome. For example, when a company is satisfied with the work of a customer, they could reward them with extending the contract. Another example of a non-financial incentive is that after completing a project a contractor can provide an official letter of appreciation to the client. This kind of non-financial incentives will stimulate him to achieve the best outcome (Hughes, Yohannes, and Hillig 2007). According to Hosseinian and Carmichael (Hosseinian and Carmichael 2013) an optimal incentive is defined as: "an incentive (a payment) that is established based on an optimal sharing of a project's equivalent monetary outcome (expressed relative to a benchmark or target that is desired by the owner), while giving the contractor the motivation to align its interests with those of the owner. An outcome might, for example, be expressed with respect to cost underruns or overruns relative to a target cost, late completion cost or early completion saving relative to a target duration, and monetary value of quality of work done compared with a target level of quality." A so-called incentive contract is one form of contracting that could be done by organisations.

But the healthcare sector is a complex sector to work with. It is a changing environment in which the demand of care is very flexible, because it is hard to forecast when people get sick and how sick they are going to be. According to this, Fu et al (Fu et al. 2015) mention that contracts cannot anticipate every possible contingency and clarify appropriate action for the involved parties. The healthcare sector deals with high complexity and uncertainty of transactions. Contracts could therefore be unavoidably incomplete. To mitigate the risk of

incomplete contracts, organisation could use relational contracting as a form of contracting. Relational contracting could be seen as an contract were the relationship "takes on the properties of a mini-society with a vast array of norms beyond those centred on the exchange and its immediate processes" (Matthews and Howell 2005). Trust is the most important aspect of these kind of contracts. The agent signed a contract with the principal to carry out the work that must be done and to do that they need to work together to assure the best possible outcome. But although the intent of the both parties is to work together, the potential for opportunistic behavior does exist. So, there is some risk that, for example the agent doesn't perform as it supposed to do. Therefore, trust is paramount in relational contracting. Trust results in closer relationships, with less need for detailed and stricter contracts.

2.2.3 Effective contracting in contract management

Incentives in a contract are important because this could reduce the principal agent problem of different goals. The principal needs to provide an incentive to the agent to motivate the agent to act in the owner's interests. At the end these incentives must lead to a certain outcome or performance. According to Bouckaert and Halligan (Bouckaert and Halligan 2008) these so called performance indicators should be formulated through negotiations between the principal and the agent. During these negotiations, the indicators will be defined, along with the performance to be delivered by the agent as measured according to the indicators. These negotiations could contribute to an effective contract, but there is more needed for an effective contract. When we look at healthcare contract management there are some other aspect that needed to be considered to evaluate whether a contract is effective. These aspects are access, equity, quality, and efficiency (Liu, Hotchkiss, and Bose 2007).

- Access to healthcare. Contracts need to be effective in terms of improving access to health care services. When a contract is arranged, the access to healthcare need to be guaranteed. This means that the access needs to be the same as before the contract was arranged or is even improved due to the contract.
- Equity means that the access to basic health care by the poor need to be improved due to the contract. When this is the case, there is better access to healthcare for everyone, regardless their income or origin, and therefore improvement in equity in access.
- When a contract is effective the quality of care also needs to be improved. Quality of care could be measured by indicators, such as structural attributes, process of care, and health outcomes.

- The last aspect is the efficiency. When contract is arranged, they need to improve efficiency. When this is the case the contract can be considered as effective.

These aspects need to be considered to decide whether a contract can be considered as effective. Billings and De Weger (Billings and de Weger 2015) conducted a study in the USA, which shows four main contracting models that could be used in practice. Each of these four models could lead to an effective contract. These models are the following:

- Accountable Care Organisations (ACOs). ACOs are groups of primary and secondary care physicians, and other health care providers, who work together to avoid duplication of services (Billings and de Weger 2015). So, there is a strong emphasis on integrated care and collaborating between healthcare providers. The goals of ACOs are to align care, reduce costs, and increase the quality of care primarily through primary care with the emergence of a connected vision for chronic disease prevention and population health (Corbett and Kappagoda 2013).
- Alliance Contracting Model. According to Billings and De Weger (Billings and de Weger 2015), an alliance contract is: "a contract between the owner, financier or commissioner and an alliance of parties who deliver the project or service." There is a risk share across all the involving parties and collective ownership of opportunities and responsibilities associated with delivery of the whole project or service. An alliance contract is a way of working that has a focus on creating relationships and creates an environment of trust, collaboration and innovation. Alliances could be in different forms, for example a strategic alliance or a relationship alliance.
- Lead Provider/Prime Contractor Model. This model aims to deliver integrated care, based around both the needs of patient groups and individual patients. An additional aim is to prevent care providers having many different contracts with several providers. Therefore one provider is given the responsibility through a contract for subcontracting to other providers for the various aspects of care to deliver care and also to ensure all different aspects of care are fully integrated (Billings and de Weger 2015).
- Outcomes-Based Commissioning and Contracting. The outcome-based commissioning and contracting model is designed to "shift the focus from activities to results, from how a programme operates to the good it accomplishes" (Billings and de Weger 2015). The purpose of this is to define the contract not in terms of outputs achieved or processes to be followed but what outcomes might be expected. In this

model outcome criteria will include measuring the extent to which for example a health condition, or behaviour has improved and the evidence that the implementation/intervention processes have achieved this outcome.

In contract management there are some theories that must be taken into account. The agency theory is an important theory in contracting, since there is a principal and an agent in contract management. Besides this the institutional theory could also influence contracts, which is an important part of this research. Institutional factors could influence the outcome of the contract, which will be discussed in more detail in the next chapters.

2.3 Agency theory

The agency theory will be part of this research because there is the principal agent problem of different goals in contracting (Eisenhardt 1989). The principal needs to provide an incentive to the agent to motivate the agent to act in the owner's interests. Therefore, the following chapter will review the agency theory, from the history of this theory to different concepts/frameworks and empirical evidence.

2.3.1 History of agency theory

Agency theory is a relatively old theory, but the importance of this theory can be seen in its huge number of applications. Agency theory explains that an agreement consists of an principal and an agent who are in a relationship (Eisenhardt 1989), the so called principal agent relationship (Shavell 1979). One party (the principal) delegates work to another (the agent), who performs that work. During the 1960s and early 1970s agency theory was used to explore and describe risk sharing problems. According to Berhold (Berhold 1971), there are different levels of risk preference and analyses how they affect the contractual choice of the participants. The result of this is that the more risk-averse agents are, the more they are willing to engage in fixed-price contracts. Jensen and Meckling (Jensen and Meckling 1976) build further on Berhold's assumptions and apply it to the special case of owner-manager relationships. Thus, early agency theory enriched literature about risk sharing by applying the agency problem to goal conflicts between cooperating parties, and between the division of labour (Eisenhardt 1989). The underlying agency relationship can be described as: "a contract under which one or more persons (principals) engages another person (the agent) to perform

some service on their behalf which involves delegating some decision-making authority to the agent" (Jensen and Meckling 1976).

2.3.2 Different concepts/frameworks of agency theory

Agency theory explains that an agreement consists of a principal and an agent who are in a relationship. When these parties work together and cooperating in a certain agreement, there could occur an agency problem. This problem could occur when the cooperating parties have different goals and visions (Eisenhardt 1989). Agency theory is concerned with resolving problems that could occur in this kind of principal-agent relationships. Especially two problems could occur when the agency theory is used in contract management. The first one is that the desired goals of the principal and the agent conflict. There could be a different goal that both parties have. The agent could have a certain self interest in the principal-agent relationship (Bosse and Phillips 2016). The goal conflict occurs as agents are perceived as profit maximisers, which means that they aim at maximizing their own profit. Risk-aversion contributes to this goal conflict problem, as the agent is considered to be more risk-averse than the principal (Williamson 1998). The second problem that could occur in a principal-agent relationship is the problem of information asymmetry. Information asymmetry means that both parties, the principal and agent, have different information. The principal knows different things of the process or product compared to the agent. Information asymmetry simply occurs when "different people know different things". Besides this it is difficult or expensive for the principal to verify what the agent is doing. The problem in this case is that the principal could not verify that the agent has behaved appropriately (Hill and Jones 1992a). Information asymmetry, in combination with profit-maximizing behavior can lead to three kinds of opportunism (Lubatkin et al. 2005):

- Adverse selection. Adverse selection takes place before the contracting signed and occurs when the agent misrepresents his skills (Eisenhardt 1989). In this case the agent has more information than the principal and misrepresents his skills in order to establish a contractual relationship (Thomsen and Conyon 2012).
- Moral hazard. Moral hazard could occur when the principal cannot observe the agents behavior, which could lead to moral hazard problems (Connelly et al. 2011). Moral hazard occurs after the contractual has been signed. Due to information asymmetry, the actions undertaken by the agent are not observable through the principal. An example of moral hazard is that an agent has no direct benefit of making profit for the

principal. This may incline him to take decisions in favour of his own goals instead of making decision favouring the principal.

- A 'hold-up' problem. Hold-up problems could occur because of relational specific investments, which may incline the other party to behave opportunistically, knowing that it is for the investing party hard to change the relationship without losing this specific investment.

To mitigate information asymmetry between both parties, agency costs could occur. Agency costs consist for example, of costs for the principal for monitoring the agent.

Another agency problem that could occur in agency theory is the principal-principal problem. This kind of agency problems occur between management and shareholders, which could have different goals and incentives in an organisation (Renders and Gaeremynck 2012). Because this kind of problems is less often the case in the healthcare sector and this is not the focus of this study, there will be no further literature review on this kind of agency problems.

2.3.3 Empirical findings of agency theory

Agency theory offers the explanations to optimal contracting and can therefore be a useful tool in contract management. There is different scientific evidence for the positivist agency stream (the owner-manager problem) and the principal-agent problem. The agency theory has been mostly applied to the relationship between owners and managers inside listed corporations (Renders and Gaeremynck 2012).

Regarding the positivist agency stream Eisenhardt (Eisenhardt 1989) reviewed scientific literature regarding the owner-manager problem and found supporting evidence of this problem. Amihud and Lev (Lev and Amihud 1984) test the hypothesis that risk-reduction activities are more often seen in manager controlled companies than in owner-controlled companies. Agency theory assumes that managers are more risk-averse than principals. Principals are actually more risk neutral in most cases and Amihud and Lev predict therefore that managers-controlled companies are more likely to diversify than owner-controlled companies (Lev and Amihud 1984). The results of the study confirm this hypothesis. The studies observed by Eisenhardt also confirm that opportunistic behavior does exist in principal-agent relationships. Furthermore, the propositions of the positivist agency stream, that outcome-based contracts as well as information to verify the agent's behavior makes agents behave in the interest of the principal, are confirmed (Eisenhardt 1989).

Regarding the principal agent problem Eisenhardt (Eisenhardt 1989) reviewed several articles, which tested independent variables (information systems, degree the risk-aversion of the principal and agent, the level of goal conflict, task programmability, outcome measurability as well as the duration of the relationship) in relation to the dependent variable contract type, with its attributes to behaviour based contract and outcome-based contract. Agency theory was supported for the variables information systems, outcome uncertainty, outcome measurability and task programmability, in relation to the different behaviour-based or outcome-based contracts (Eisenhardt 1989). Table 1 gives an overview of the different concepts in agency theory.

Table 1 Different concepts of agency theory

Concept	Description	Problem that could occur
Owner-manager problem	Risk-reduction activities are more often seen in manager-controlled companies than in owner-controlled companies. Agency theory assumes that managers are more risk-averse than principals.	- Opportunistic behavior could exist in these kind of relationships
Principal-agent problem	Agency theory explains that an agreement consists of a principal and an agent who are in a relationship. When these parties work together and cooperating in a certain agreement, there could occur an agency problem	- Different goals of both parties. - Information asymmetry between both parties.
Principal-principal problem	This kind of agency problems occur between management and shareholders in an organisation	-Different goals and incentives in an organisation

It becomes clear that agency theory is supported by several sources of empirical evidence. Agency theory is an important theory in contract management, since there is a strong relationship between the principal-agent relationship. This relationship often goes hand in hand with problems like different goals and information asymmetry. This research will focus on the principal-agent theory, because insurance companies (principal) delegate work to healthcare organisations (agents). The agents are accountable for the care of the clients (patients) of the principal (patients have an insurance at the insurance company).

2.4 Institutional theory

Agency theory is an important theory in contract management, but according to the article of Alexander (Alexander 2005), agency theory should be combined with institutional theory. Therefore, and because this research mainly focusses on the influence of institutional factors on the effectiveness of contractual incentives, the following chapters will review the existing literature of the institutional theory.

2.4.1 History of institutional theory

There is much known about institutional theory and about changing and renewing organisations (Fernandez and Rainey 2006). Institutional theory has been applied in many different domains ranging from institutional economics and political science to organization theory since the 1970's (J. W. Meyer 2007);(Thoenig 2011), it is one of the current dominant theories in the management literature. Early concerns of institutional theory were rooted in sociology with an focus on understanding why there was striking similarity among very diverse organizations and how these organizations buffer themselves from the demands of their environment (DiMaggio and Powell 1983). DiMaggio and Powell also investigated how institutions in an organizational field shaped organizational strategies and structures, included Weber's image of the "iron cage" of organizational actions and processes (DiMaggio and Powell 1983). While earlier work on institutional theory was focused on issues of stability, more current concepts of this theory have moved to analyses of institutional change (Dacin, Goodstein, and Scott 2002), institutional work, and institutional entrepreneurship (Washington and Patterson 2011).

2.4.2 Different concepts/frameworks of institutional theory

Washington and Patterson (Washington and Patterson 2011) reviewed the institutional theory and describe five key elements or tenets of institutional theory. The first element is that organizations are influenced by their institutional contexts. Many researchers ague that organizations operate in an open system where they are influenced by the environment. Institutional theory has gone further by categorizing how and why specific parts of the environment influence organizational actions. Institutional theory is concerned with why organizations and other actors do things that might not directly lead to profit maximization.

This leads to the following key element: institutional pressures affect all organizations but especially those with unclear technologies. Unclear technologies refer to the fact that some environments (so called institutional context) are more technical focused, while others might be more influenced by dominant institutions.
The presence of institutions inside organizations leads to the third key element of institutional theory: organizations become isomorphic with their environments to gain legitimacy, which enhances their survival. This element deals with the fact that organizations often adopt practices and policies not because they help to solve their efficiency problems, but because they help the organization to gain their legitimacy with respect to their environment (Tolbert and Zucker 1983). However, while organizations adopt practices to gain legitimacy, this does not mean that adopting these practices assure an internal change inside the organization.
This relates to the fourth key element of institutional analyses: practices to gain legitimacy may be contrary to practices for efficiency, and conformity to the environment may be decoupled.
The fifth key element argues that once a practice gets legitimacy and is supported by a dominant institution, then that practice becomes an institution. This has also become the main definition of an institution but refers to the characteristics that are present when institutionalization is achieved.

Institutional theory argues that the primary objective of organizational change is not better substantive performance but greater legitimacy (Ashworth, Boyne, and Delbridge 2007). Organizations adapt their internal characteristics to conform to the expectations of the key stakeholders in their environment. There are organisations that face pressure to enhance their legitimacy. Only those that achieve to enhance legitimacy could be implemented successfully, and will be accepted by the environment (Scott 2008). These pressures towards institutional isomorphism are described by DiMaggio and Powell as coercive, mimetic and normative (DiMaggio and Powell 1983). Institutional isomorphism is a constraining process that forces one unit in a group or organisation to resemble other units that face the same set of environmental conditions (DiMaggio and Powell 1983). According to DiMaggio and Powell in institutional theory there are three pressures, which are the following:

- Institutions could regulate the behaviour of individuals and organisations. These so-called coercive forces are forces that have external pressure exerted by government, regulatory or other agencies, to adopt the structures or systems that they favour. So, this kind of institutions set the rules and organisations must adhere to that. Examples

of these pressures are legal requirements and health and safety regulations (DiMaggio and Powell 1983). Another example of coercive factors are procedures organisations must follow and hierarchical organisational structures.

- Mimetic forces are forces that arise from imitation. This means pressures to copy or emulate other organizations activities, systems or structures. Organisation are tending to imitate other organisations/initiatives that are successful. Innovations that are deemed to enhance legitimacy are desirable, especially when there is uncertainty where actors cannot be sure of the relationship between organizational means and ends. Such copying could be undertaken without any clear evidence of performance improvements (Ashworth, Boyne, and Delbridge 2007).
- Normative factors reflect standards and values in a certain industry or organisation. Normative forces are forces that describe the effect of professional standards and the influence of professional communities on organizational characteristics. This means that they capture the way in which organizations are expecting to conform to standards of professionalism and to adopt systems and techniques considered to be legitimate. This could be conveyed through the education and training of professionals and certification processes accredited by professional bodies (Ashworth, Boyne, and Delbridge 2007).

Scott (Scott 2001) used a more or less similar model to look for institutional aspects of organisations. He builds a model based on three pillars: the regulative, the normative, and the cultural-cognitive.

The regulative pillar is about the explicit side of regulation: how we set rules, monitor that they are obeyed, and how non-compliance is sanctioned.

The second pillar, the normative pillar, deals with what is right and wrong according to social norms and moral terms.

The last pillar, the cultural-cognitive pillar emphasises what is taken for granted: habits and practices based on generally held beliefs of how things work around here. Roles are an important element in this pillar, because roles are pre-defined or pre-known positions in the social networks that constitute organisations and their exchange relations with society.

Difference with DiMaggio and Powell is this 3th pillar, the cultural-cognitive pillar. This pillar emphasises what is taken for granted: habits and practices based on generally held beliefs of how things work around here.

Svejvig added a third framework about institutional theory. According to Svejvig (Svejvig 2013) institutional theory consist of four key features, which offer a distinctive perspective on organizations. These four features are the following:

- Institutional and competitive pressures, which are leading to isomorphism. Organizations face both competitive and institutional pressures leading to isomorphism. Institutional pressures could be either coercive, normative, or cognitive.
- Rationalized myths. This is related to technical procedures, accounting, personnel selection, or data processing. These kind of institutionalized techniques establish an organization as appropriate, rational, and modern, quite apart from their possible efficiency (J. W. Meyer et al. 1977).
- Multiple levels of analysis bridging macro and micro structures. Institutional theory could be applied to a varying level of analysis ranging from society, organizational field, and organization to individual actor level.
- Institutional logics. Institutional logics refers to a set of material practices and symbolic constructions linking institution and action, providing a bridge between macro-structural perspectives and micro processes.

These different concepts of institutional theory are summarized in the table below.

Table 2 Different concepts institutional theory

Author	**Concepts used**	**Explanation**
DiMaggio and Powell (1983)	1.Coercive pressure 2.Normative pressure 3.Mimetic pressure	organisations that face pressure (coercive, normative, mimetic) to enhance their legitimacy. Only those that achieve to enhance legitimacy could be implemented successfully.
Scott (2001)	1.Regulative pillar 2.Normative pillar 3.Cultural-cognitive pillar	Difference with DiMaggio and Powell is the 3th pillar, the cultural-cognitive pillar. This pillar emphasises what is taken for granted: habits and practices based on generally held beliefs of how things work around here.
Svejvig (2013)	1.Institutional and competitive pressures 2.Rationalized myths	Four key features, which offer a distinctive perspective on organizations. The first two are actual conceptualizations, whereas the 3th and 4th focus more on the general levels and analyses and logics.

	3.Multiple levels of analysis bridging 4.Institutional logics	

2.4.3 Empirical findings of institutional theory

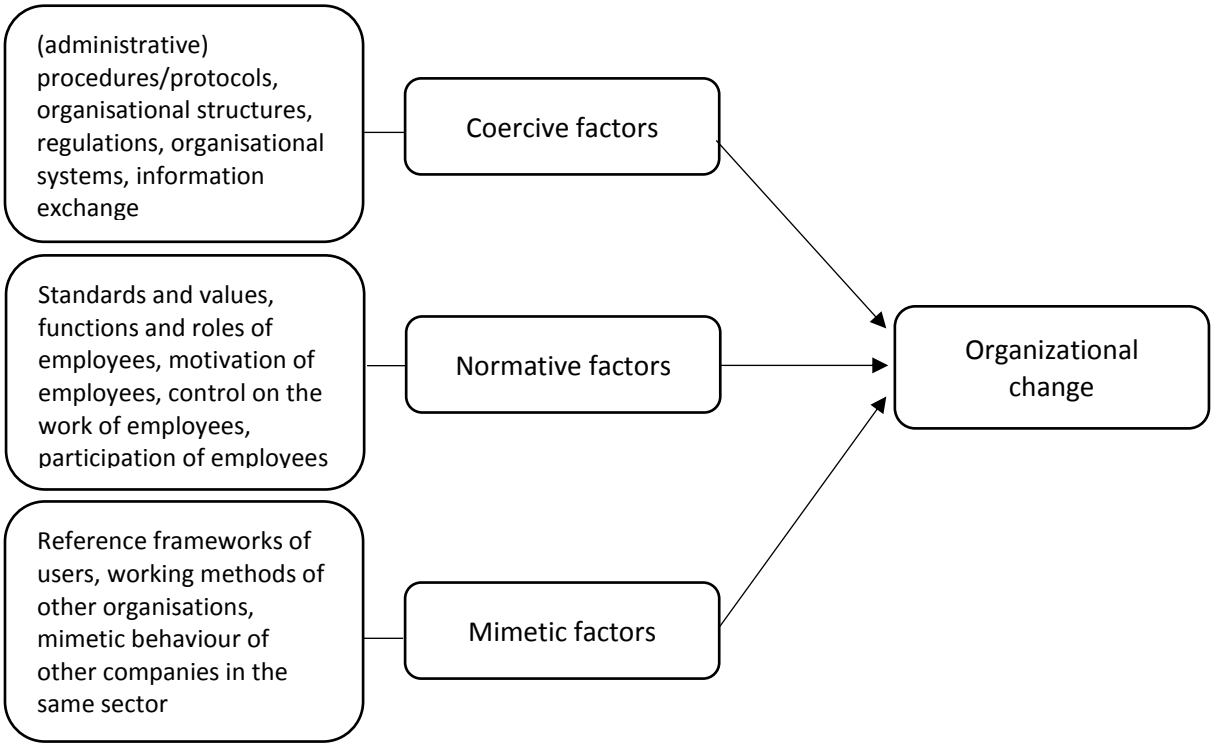
The best institutional framework is the framework of DiMaggio and Powell (DiMaggio and Powell 1983) about coercive, normative and mimetic pressures. This framework fits best with the research question and therefore will be explained further. The concept of Svejvig deals with conceptualizations and general levels and analyses. This does not fit with the research question and therefore this isn't the best framework for this research. The framework of Scott is more or less the same, only the third pillar is different. Because the InBeeld care is also used in many other organizations, the mimetic factors were seen as more important factors than the cultural-cognitive factors. Therefore the framework of DiMaggio and Powell fits best with this research.

The three variables of DiMaggio and Powell could include many different aspects of a company. A research that is conducted earlier, between 1997 and 2002, made some sub dimensions that could also be used in this research (Vermeulen et al. 2007);(Vermeulen 2011). The research of Vermeulen used qualitative data from the Dutch financial services sector to illustrate how micro institutional forces at the business unit level affect complex incremental product innovation and how the interaction of these forces delivers their impact. They investigated which institutional factors had to consider assuring that organisational changes could enhance their legitimacy. For this research they interviewed 175 banking and insurance employees. The outcome of the research is an analysis of the influence of institutional factors in successful and unsuccessful projects. This research did not only look at successful projects, but also less successful projects, therefore the variables used in this research could also be used in other exploratory research. The study mentions that innovations are always difficult, because it is about changing the routine of employees. Therefore they mention that it is important to take into account the opinion of professionals about the innovations. How do they want to see the innovation, this is important for the success of such an innovation. They argue that changing the routine of professionals is the hardest thing to realise in innovative projects.

The research of Vermeulen was conducted in the banking/insurance sector, but the research design is also applicable at the healthcare sector, because this is also a sector where they

provide services. Figure 1 gives an overview of the different concepts Vermeulen used in his research.

Figure 1 Institutional factors influencing organisational change (Vermeulen et al. 2007)



All these sub dimensions could have an influence on organisational changes in the health care sector.

Mohamed (Mohamed 2017) performed a review on institutional theory. He argued that although one of institutional theories main contributions is about managing the organizational research in its cultural cognitive dimension (Scott 2008), researchers have mostly focused on coercive and normative aspects (Phillips and Malhotra 2008). The coercive and normative pillars create stability by allowing deviating behavior. Such sanctions are not mandatory for the cultural-cognitive pillar. Zucker (Zucker 1977) argues that sanctions and regulations may deinstitutionalize an institution's culture cognitive pillar, which makes the institution less objective, but they are important characteristics of cognitive institutions. Scott's claim can be too strong as actors may or may not know different acting methods, which makes no sense. Cognitive institutions could have a constraint on an actor's range of actions. Although

cognitive institutions are more or less central in the institutional theory, there is no agreement between experts on what they really are (Zilber 2002);(Greenwood and Bonner 2008). Greenwood openly challenged the approach that defined these institutions as "taken for granted", either through practice or through behavior (Giddens 1979). This institutional concept is described by Meyer and Rowan' (J. W. Meyer et al. 1977) as: "facts that actors must consider". Institutions are believed to be "socially constructed institutions for action" (Barley and Tolbert 1997). This review showed that the cultural-cognitive pillar isn't the best pillar to use in this research, because literature isn't clear about what this pillar defines.

2.5 Stakeholder theory

This research will investigate the influence of institutional factors on the effectiveness of contractual incentives, according to different stakeholders of the two healthcare providers. For different stakeholders, different institutional factors could obstruct or foster the effectiveness of the contractual incentives, therefore it is important to identify the most important stakeholders of contracts. By doing this there will be a comprehensive view of the influence of institutional factors on contractual incentives.

2.5.1 Development of stakeholder theory

In the mid-1980 the stakeholder theory starts to become more popular (Freeman 1984). Freeman (Freeman 1984) did a lot of research on this topic, and developed the stakeholder theory as an popular concept in management theory. Since Freeman's work, the stakeholder theory has been widely employed to describe and analyse the relation between organisations and society. Donaldson and Preston (Donaldson and Preston 1995) described in their article that there were a dozen books and more than 100 articles describing the stakeholder concept as a primary theory. While each of these articles may define the stakeholder concept somewhat different, each of them stands for the same principle, namely that corporations should heed the needs, interest, and influence of those affected by their policies and operations (Buchholz and Rosenthal 2004). A general definition of a stakeholder is the definition Mitchell et al (Mitchell, Agle, and Wood 1997) stated in their article, which is the following: "Any group or individual who can affect or is affected by the achievement of the organization's objectives". Another used definition of stakeholders is the one Buchholz and Rosenthal use (Buchholz and Rosenthal 2004) in their article: "those persons or interests that have a stake, something to gain or lose as a result of the corporation's activities". A stakeholder is an individual or group that has some kind of stake or interest in the organisation

and may also affect this organisation in some way. Typical stakeholders are consumers, suppliers, government, competitors, communities, employees, and stockholders (Buchholz and Rosenthal 2004). Stakeholder management involves taking the interests and concerns of these various persons into account in arriving at a management decision, so that they are all satisfied as much as possible, or at least that the most important stakeholders, are satisfied. The very purpose of the firm is to serve and coordinate the interests of these various stakeholders, and it is the moral obligation of the firm's managers to strike a balance among stakeholder interests in directing the activities of the firm (Buchholz and Rosenthal 2004).

2.5.2 Different concepts/frameworks to identify stakeholders

There are three main concepts and frameworks to identify stakeholders: The actor linkage matrices, Social Network Analysis, and the stakeholder theory of Mitchell et al.

Actor-linkage matrices are a commonly used concept for describing stakeholder interrelations (Biggs and Matsaert 1999). Actor-linkage matrices require stakeholders to be listed in the rows and columns of a table creating a grid, in this way interrelations between them can be described by using key words (see table 3 for an example of an actor-linkage matrix). One popular method to do this is, for example, to determine whether the relationships between each stakeholder are of conflict, complementary, or cooperation. The advantage of this approach is that is relatively simple of use.

Table 3 Example of an actor-linkage matrix

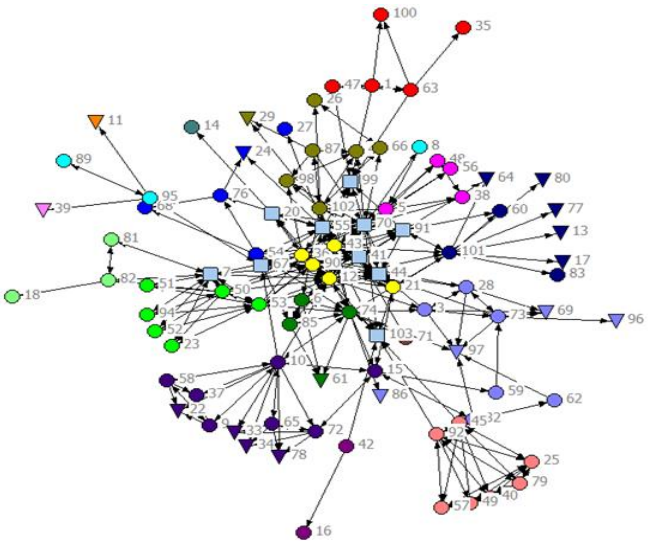
		1	2	3	4
	Actor	*Poorer Farmer*	*Richer Farmer*	*Researchers in public sector*	*Researcher in private sector*
A	*Poorer Farmer*	**A1**			
B	*Richer Farmer*			**B3**	
C	*Researchers in public sector*		**C2**		**C4**
D	*Researcher in private sector*				

In table 3, which is derived from the article of Biggs and Matsaert (Biggs and Matsaert 1999), the actors are listed across the page in the columns. The cells in this matrix represent information that pass from one group to another. Table 3 illustrates this, defining four groups of actors. Cell B3 represents the row of information from a group called rich farmers to public

sector researchers. Cell C2 represents information going from researchers in the public sector to richer farmers. The cells in the diagonal of the matrix represent the exchange of information between people in the same group. Cell A1 shows the information that is passed between poorer farmers. This form is more about relationships among different stakeholders. This research is about investigating the influence of different organisational factors on contractual incentives according to different stakeholders. So it is important to investigate which stakeholders need to be taken into account, instead of investigating relationships among stakeholders.

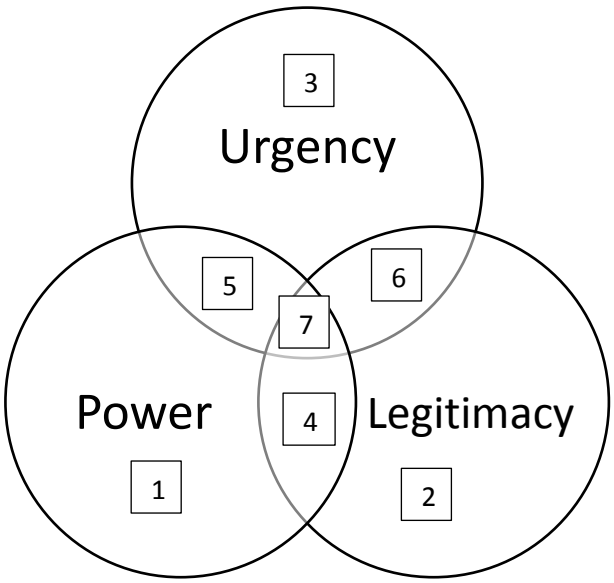
Another concept is the Social Network Analysis (Reed et al. 2009). Like actor-linkage matrices, Social Network Analysis makes use of matrices to organize data about the relational between different stakeholders. But instead of using key words in the matrix cells, Social Network Analysis uses numbers to represent the presence/absence of a tie, and the relative strength of the tie. Each matrix represents a unique relation, for example, communication, friendship, or advice. Social Network Analysis captures not only different kinds of relations (both positive and negative), but also the strength of these ties. Analysis of these matrices uncovers the structure of the stakeholder network, thus identifying which stakeholders are more central, which are marginal, and how these stakeholders cluster together (See Figure 4 for an example of Social Network analysis). Again this research is about investigating the influence of different organisational factors on contractual incentives according to different stakeholders. So it is important to investigate which stakeholders need to be taken into account, instead of investigating relationships among stakeholders.

Figure 3 Example of Social Network Analysis



The stakeholder theory of Mitchell et al. (Mitchell, Agle, and Wood 1997) will be used in this research. The reason for this is because this is that this theory is about identifying important stakeholders, where the other two concepts are more about identifying relationships among stakeholders. Besides this the theory of Mitchell et al is the most widely used approach in stakeholder analysis (Wang, Ge, and Lu 2012). The article of Mitchell et al has been recognized as a significant development of stakeholder theory (Wang, Ge, and Lu 2012). According to Mitchell et al. (Mitchell, Agle, and Wood 1997) stakeholder theory must account for power, urgency, and legitimacy of the different stakeholders. Power refers to the relationship among social actors in which one social actor (A), can get another social actor (B), to do something that B would not have otherwise done. Legitimacy is defined as: "A generalized perception or assumption that actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, definitions. And the last one, urgency, is defined as: "The degree to which stakeholder claims call for immediate attention. To identify the importance of different stakeholders, it is good to look at these three different components. According to Mitchell et al. (Mitchell, Agle, and Wood 1997) it is possible to make a typology of different stakeholders, depending on the presence of various combinations of the attributes: power, legitimacy, and urgency. The different stakeholder types are shown in the next figure, figure 3:

Figure 2 Different stakeholder types (Mitchell, Agle, and Wood 1997)



The different number correspondent with different types of stakeholders. They will be described next (Mitchell, Agle, and Wood 1997):

- Number one are the dormant stakeholders. Dormant stakeholders possess power to impose their will on an organisation, but they do not have a legitimate relationship or an urgent claim, so their power remains unused.
- Number two are the discretionary stakeholders. Discretionary stakeholders possess legitimacy, but they have no power to influence the firm and no urgent claims.
- Number three are the demanding stakeholders. Stakeholders with the attribute urgency are described as "demanding".
- Number four are the dominant stakeholders. Stakeholders who are both powerful and legitimate, have significant influence in an organisation. Therefore, they are called dominant stakeholders.
- Number five are the dangerous stakeholders. Stakeholders who have urgency and power, but who lacks legitimacy, are called dangerous stakeholders. These stakeholders will be coercive and possibly violent, making the stakeholder "dangerous" for the organisation.
- Number six are the dependent stakeholders. Stakeholders who lack power but who have urgent legitimate are defined as "dependent", because these stakeholders depend upon others for the power necessary influence the organisation.
- Number seven are the definitive stakeholders. When stakeholders possess all three components, organisations have a clear and immediate mandate to attend to and give priority to that stakeholder's claim.

Table 4 summarises the different concept of stakeholder theory and their strengths and weaknesses.

Table 4 Summary of different concepts of stakeholder theory

Method	**Description**	**Strengths**	**Weaknesses**
Stakeholder theory Mitchell et al. (Mitchell, Agle, and Wood 1997)	stakeholder theory must account for power, urgency, and legitimacy of the different stakeholders	One of the most important concepts of stakeholder theory, and relatively easy to compose	The seven different stakeholder types could have some overlap sometimes

Actor-linkage Matrices (Biggs and Matsaert 1999)	Stakeholders are tabulated in two-dimensional matrices and their relationships is described by using codes	Relatively easy and requires few resources	Can become confusing and more difficult to use if many linkages are described
Social Network Analysis (Reed et al. 2009)	Used to identify a network of stakeholders, and measures relational ties between stakeholders	Gaining insight into the boundary of stakeholder network, and identifies possible influential stakeholders	Time-consuming, and needs specialist in the method

2.5.3 Empirical findings stakeholder theory

Earlier studies on stakeholders in organisations can be found primarily in the management and organizational literature. In 1984, Freeman (Freeman 1984) defined the stakeholder theory from organizational perspective and established basic characteristics of different stakeholders. A later study (Hill and Jones 1992b) used stakeholder theory to explain the organizations strategic behavior and management structure. They identified different stakeholders from organizational perspective such as managers, employees, customers, suppliers, local communities, public, and stockholders. Another study (Wallace 1995) grouped several stakeholders into seven categories including government, shareholders, executive management, customers, employees, suppliers, and community. They investigated the impact of conflicting stakeholders' requirements and importance of balancing them to assure efficient and effective decision making. Similar to this study, Wong (Wong 2005) investigated the impact of stakeholders' conflicts on projects and found that significant differences between different stakeholders lead to serious issues, such as poor communication, misunderstanding, conflicts, and ultimate project failure. Donaldson and Preston (Donaldson and Preston 1995) argued in their article that there are four aspects revolving stakeholder theory namely: descriptive; instrumental; normative; and managerial. They argued that the first three are nested within each other, which describe, predict, and explains. However, managerial aspect is used in the sense that it not only simply describes or predicts but also recommends these attitudes, structures, and practices for an organization.

Rahman and Ko (Rahman and Ko 2013) performed a review on identifying stakeholders in healthcare organisations. They stated that healthcare environments such as hospitals, clinics, and emergency rooms are very different from the non-healthcare environments described

above and therefore the stakeholders are also different. Due to this fact, concepts of stakeholders, which originated and used in the non-healthcare sector may not be directly applicable to the healthcare sector (McLeod Jr. and Clark 2009). To identify individual roles of stakeholders, McLeod and Clark presented a stakeholder analysis method. They identified patients, physicians, specialists, interns, nurses, clinicians, and administrators as key stakeholders for healthcare products. Shah and Robinson (Shah and Robinson 2006) conducted a study to understand the impact of different stakeholders and their involvement in healthcare technology development. They identified several different stakeholders such as physicist, physicians, medical record personnel, clinicians, therapists, nurses, medical students, patients, carers, specialists, technicians, and laboratory personnel.

De Zegher et al. (de Zegher et al. 1994) identified different stakeholders for a drug prescribing system and found that patients, prescribers, care providers, managers, and pharmacists are the key stakeholders in this process. These stakeholders are very context specific, but the authors didn't provide any rationale for identifying these actors as key stakeholders. Similar to this study, several other studies (Hill and Jones 1992a);(Savage et al. 1992);(Wallace 1995) identified a broad groups of individuals as stakeholders. These stakeholders are managers, stockholders, employees, customers, suppliers, creditors, and communities. But these authors also did not rationalize their selection of these groups as major stakeholders. The study of Mantzana et al. (Mantzana et al. 2007) identified four different groups of stakeholders, which are the following:

1. Acceptors are defined as individuals who receive and accept services that are provided by a certain project
2. Providers are the individuals who provide services using the services of a project.
3. Supporters are individuals who are necessary to maintain the project, for example representatives from IT department.
4. Controllers are individuals who have the authority to manage these projects.

In addition to these four groups, Rahman and Ko (Rahman and Ko 2013) propose to add a fifth group, namely the producers. Producers are individuals who are responsible for the architect, design, develop, and implementation of a certain project. These studies showed that it is important to take into account all different stakeholders to create a comprehensive view. When stakeholders groups were forgotten, this will create an incomplete view of an result. Therefore it is important to take into account all different stakeholders, because they all have different views on different aspects.

During this research different stakeholders were identified according to the stakeholder theory of Mitchell et al and the theory of Mantzana et al. With the use of these two theories the important stakeholders could be identified and this assures a comprehensive view of the influence of organisational factors on contractual incentives.

3 Hypotheses: Combination of theories for the healthcare sector

This research investigated which institutional factors (coercive, normative and mimetic) were in literature available. After this there was an investigation which of these institutional factors are present at the case companies. The question was whether these institutional factors did influence the contractual incentives, and when this was the case it was the question in which way they influenced the contractual incentives (Wiseman, Cuevas-Rodríguez, and Gomez-Mejia 2012). Wiseman et al. argue that in a highly regulated environment, there is simply less need for an incentive pay structure. Because in highly regulated organisations everything is documented and there is less often a principal-agent problem, because there is no room for the agent to have different goals than the principal. The last part of this research was about investigating whether these institutional factors foster or obstruct the contractual incentives.

3.1 Propositions regarding the research model

Based on literature it was possible to include propositions for the relationships displayed in Figure 5. These propositions are about the interaction between the different aspects in the figure. De numbers in the figure correspondent with the numbers of the propositions, number one in Figure 5 corresponds with proposition one etc.

Coercive pressures are defined as formal or informal pressures from other organizations upon which they are dependent (DiMaggio and Powell 1983). Coercive pressures could come from resource-dominant organizations, regulatory bodies, and parent corporations (Sherer 2010). Coercive factors that could obstruct contractual incentives for being effective are (administrative) procedures/protocols and regulations. Protocols and procedures dictate organizational behaviour in many business units (Vermeulen et al. 2007). These protocols and procedures are there to assure uniform and good care that is safe for patients (Shestopalova and Gololobova 2018), but this could also negatively affect efficiency and effectiveness. Examples of these procedures and protocols are the many things nurses and doctors need to do when threating a patient (Shestopalova and Gololobova 2018). For example, after every

patient they must document what they have done and how the patients' status was that day. By doing all this extra work, they could not use this time for treating patients, and therefore this obstruct healthcare workers to work effective and efficient. This could be a reason that procedures and protocols obstruct contractual incentives for being effective.
Regulations could also obstruct contractual incentives for being effective. Regulations are there for patients, to assure good care, but it could also be a hurdle for organisations to work efficient. An example of one of these regulations is the "General Data Protection Regulation (GDPR)" or in Dutch the "Algemene Verordening Gegevensbescherming (AVG)". The AVG (Schermer, Hagenauw, and Falot 2018) is a regulation to assure the privacy of the patients. Patient data must be stored privately. But this regulation causes also problems in exchanging information of patients between different stakeholders in healthcare. Due to the AVG, these organisations could not exchange all the information about patients. This causes for inefficient work and double work for both organisations. Therefore, these regulations could obstruct in the incentives in the contract for being effective.
There are also some coercive factors that could foster contractual incentives for being effective (Vermeulen et al. 2007). Examples of these factors are organisational structures and information exchange (Vermeulen et al. 2007). When there is good information exchange between the different stakeholders of both organisations they could work more efficient. When they keep each other up-to-date about the situation of patients, there will be no duplication of activities. When the information exchange is good, this could foster contractual incentives for being effective. The same is the case for organisational structure. When the organisational structure is well defined, and supporting the contractual incentives, this could foster them for being effective. Examples of this could be that the organisations appointed people or created jobs, to create a good environment for succeeding the new contract with the insurance company.
The hypothesis is that coercive factors could be obstructive, but there are also some coercive factors that could foster the contractual incentives for being effective.
Proposition 1: *Coercive factors are obstructive for the effectiveness of contractual incentives.*

There are different normative factors that could influence contractual incentives.
One normative factor that could influence the effectiveness of contractual incentives are the functions and roles of employees. When tasks of different employees are strictly divided, then it could be possible that they are not interested in each other's tasks (Vermeulen et al. 2007). This could have a negative effect on the effectiveness of contractual incentives, because

employees will not work together that well, which negatively influences the outcome. On the other hand, when employees have different roles, which complement each other, this could positively influence the contractual incentives. Complementary roles will stimulate collaboration and therefore the outcome will be positively influenced. The hypothesis is that the different stakeholders have clear functions and roles of employees, which complement each other, to achieve the outcome of the contract.

The last two normative factors that could influence contractual incentives are the motivation of employees and participation of employees (Vermeulen 2011). Participation of employees is about whether the vision of the different stakeholders was considered during the design of the contract, and the contractual incentives. When this was the case this could have a positive effect on the effectiveness of the contractual incentives. Participation of stakeholders could have a positive effect on the outcome of the contract, because involvement of employees in decision making increases the performance of employees (Han, Chiang, and Chang 2010). When employees have the feeling that their organisation listens to them, and they could have some influence on their work activities, they will be more motivated to do their job (Han, Chiang, and Chang 2010) This is also in relation to the last factor, the motivation of employees. When the different stakeholders are involved in decision making, they are more motivated to reach the goal of the contract. When employees are not motivated this will have a negative influence on their working activities. An example of employees that could not be motivated to actively participate in the contract are the medical specialists. Since these medical specialists have a partnership with the hospital (they are not employed directly by the hospital), they get payed per patient. Due to the InBeeld project, more patients will be monitored at home instead of in the hospital. Therefore, the medical specialist will have less patients, and because of this, less income. Therefore, the medical specialists will be less motivated to contribute to the InBeeld project. This example makes clear that motivation of the different stakeholders could influence the contractual incentives.

When the different stakeholders are not involved and not motivated this could obstruct the contractual incentives for being effective. The hypothesis of this proposition is that normative factors could foster the effectiveness of contractual incentives.

Proposition 2: *Normative factors are fostering the effectiveness of contractual incentives*.

There are different mimetic factors that could influence contractual incentives. Mimetic factors exist when an organization imitates the actions of other organizations because these

organizations occupy a similar economic network position in the same industry (Sherer 2010). A mimetic factor that could influence the contractual incentives are working methods of other organisations (Sherer 2010). Employees face pressure to conform to shared notions of appropriate structure, attitudes, and behaviours of other employees or organisations. By imitating actions of successful organisations, organisations could perform better themselves. These successes serve as the basis of the desirable imitation, especially when organisations face similar needs and success. The different stakeholders could, for example, imitate actions of stakeholders from academic hospitals. By doing this, they will possibly perform better in their tasks. Therefore, this could positively influence the contractual incentives.
Another factor that could possibly influence contractual incentives are reference frameworks of users (Vermeulen 2011). When users, in this case patients of the stakeholders, have a high standard regarding reference frameworks, this could obstruct contractual incentives. Patients could be less satisfied with the care they get, if they have high standards of reference frameworks. When patients are less satisfied it is possible that they use less often the services of both healthcare organisations and this influences the contractual incentives. Besides this, when patients are less satisfied, this will have a negative effect on the outcome of the contract. One of the outcome measurements is the satisfaction of patients, and this will be lower if they have a high reference framework. Therefore, reference frameworks could have a negative effect on the effectiveness of contractual incentives.
Overall, mimetic factors could be obstructive, as well as fostering the contractual incentives.
Proposition 3: *Mimetic factors could be both, obstructive and fostering for the effectiveness of contractual incentives*.

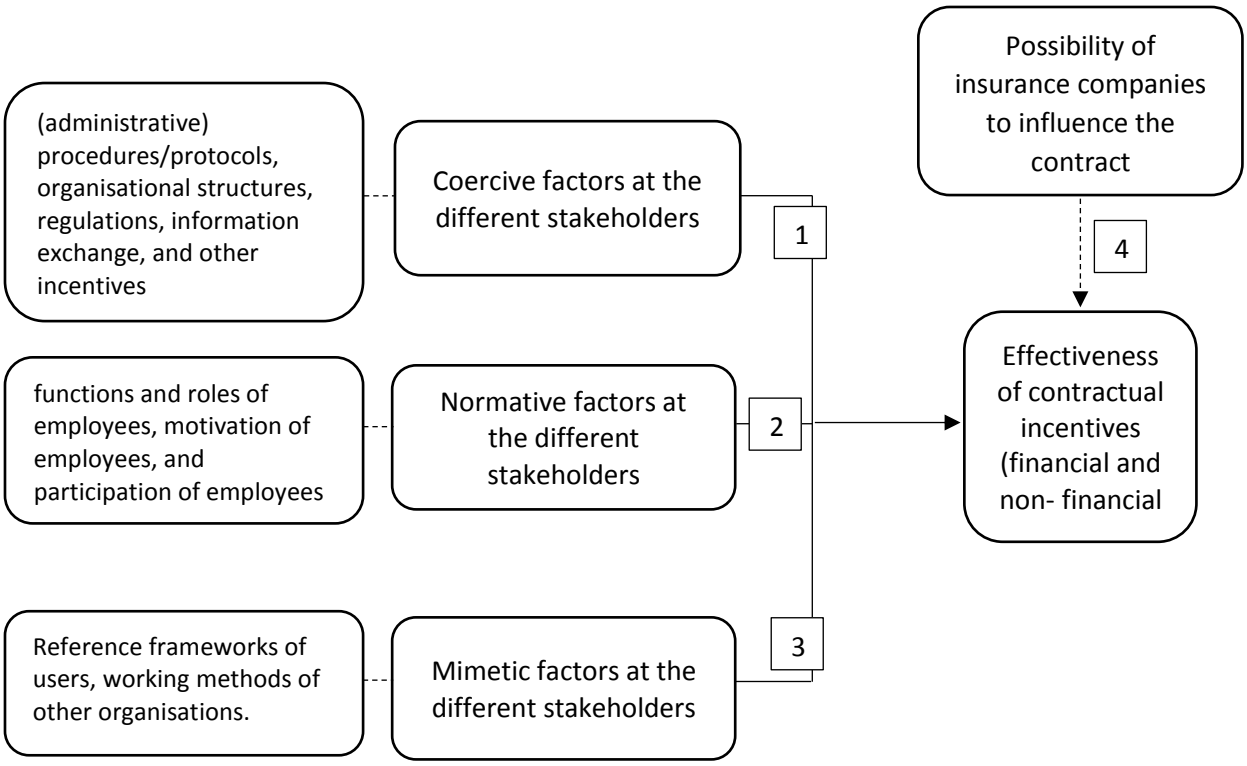
This research will provide insights in which institutional factors are obstructing or fostering the effectiveness of contractual incentives. If some institutional factors are obstructive for the effectiveness of contractual incentives, then it could be possible for the insurance company to make some adjustments in the contract to prevent this. For example if this research shows that (administrative) procedures are obstructive for the effectiveness of contractual incentives, insurance companies could assure that these administrative procedures could be diminished. Due to these administrative procedures, nurses have less time for care of patients, and therefore it is difficult to maintain proper care for the increasing number of patients. When there is less need for these administrative procedures, it could be prevented that these procedures are obstructing the effectiveness of the contractual incentives. Besides this certain regulations could make it hard for different stakeholders to assure the best care, which has an

influence on reaching the contractual incentives. For example, when nurses couldn't share their information with other organisations this could have an negative influence on the quality of care. When information isn't shared with others, it could be possible that there is a lot of work done twice. Therefore this has an negative influence on the contractual incentives, because the way of delivering care isn't efficient.

Therefore, the proposition is that insurance companies could positively influence the institutional factors at the different stakeholders, to create an effective contract.

Proposition 4: *insurance companies could positively influence the institutional factors at the different stakeholders to enhance the effectiveness of the contractual incentives.*

Figure 4 Research model



4.Methodology

In this section the case study will be presented. To conduct this research there was a company that could be analysed to answer the research question, this company and their project will be described. Besides this the research design, data collection, and data analysis will be described.

4.1 Case study

This research is conducted at an insurance company. This research could be conducted at this company because they have a new contractual agreement with two healthcare providers for the care of COPD/heart failure patients. The insurance company arranged in 2017 an 3-year contractual agreement with two main stakeholders, called “InBeeld”. Patients who participate in the “InBeeld” project receive a portable computer (IPAD), and with these IPAD’s patients will fill in questionnaires about their health. These questionnaires are sent to a company, which is a medical service centre where they analyse the questionnaires. After the analyses they send the data to the nurses of an healthcare organisation. When the nurses remark any changes in the healthcare status of a patients they will contact the patient or make an appointment to see a doctor. Software to provide the InBeeld project is designed by stakeholder Z.

The stakeholders will collaborate in the care of patients, and in return of this they get a budget per patient. With this agreement the insurance company would improve the care of COPD and heart failure patients on 5 aspects. These aspects are increase health of the patients, lower the burden of disease, increase patient satisfaction, reduce the healthcare consumption, and increase the efficiency (appendix A). To reach these aspects the insurance company inserted incentives in the contract. These incentives were identified and explained in the first sub-question of the results part. The new contract the insurance company arranged with the stakeholders goes hand in hand with some changes in the working process of the companies involved. To facilitate this change, and assure that the process of change runs well, there was another company involved. This company is called stakeholder B, which is an advisory company specialised in organisational change. This company helps the two main stakeholders to implement changes in their business processes due to the new contract they have with the insurance company.

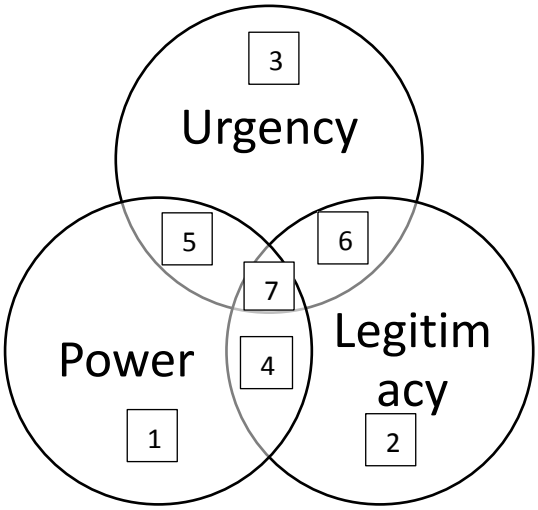
4.2 Research design

This research is a qualitative research, since this research focused on identifying institutional factors that influence the effectiveness of the contractual incentives. Qualitative research is a research method that, in contrast to quantitative research, has the goal of building theories instead of testing them (Urguhart 2012). This research focused on building theories, figuring out whether institutional factors were obstructive or on the other hand foster contractual incentives to be effective. Quantitative methods often use random sampling to make sure that their sample is a representative sample of the population (Given 2008). However qualitative methods often use purposive selection to be able to get enough information. But there are different ways in doing qualitative research, examples are observations, focus groups, or interviews (Denzin and Lincoln 2011). This research will use interviews to collect the data. Interviews were the best way of collecting data for this research, because the purpose was to know the opinion of employees, of both healthcare, about the influence of institutional factors on the contractual incentives. Interviews are a good way of going into depth about the way institutional factors influence contractual incentives. In which way the interviews will be conducted is described in the data collection part. This research focussed on institutional factors at two healthcare providers.

4.2.1 Different stakeholders InBeeld contract

According to Mitchell et al. (Mitchell, Agle, and Wood 1997) stakeholder theory must account for power, urgency, and legitimacy of the different stakeholders. The different stakeholder types are shown in the next figure

Figure 6 Different stakeholder types



The different number correspondent with different types of stakeholders (Mitchell, Agle, and Wood 1997). The identified stakeholders will be mentioned according to their stakeholders type:

- The employee from stakeholder X could belong to the discretionary stakeholders (number 2). Because it is an external organisation, they don't have direct power and urgency..
- The program manager innovation, relations manager of stakeholder X, manager Lung- and Cardiology and controllers at the different stakeholders belong to the dominant stakeholder (number 4). They are powerful and legitimate, so an important group to consider in this research.
- The employee stakeholder A and stakeholder Z could belong to the dangerous stakeholders (number 5). These organisations are private organisations who analyse the questionnaires of the patients and provide software, so they have power and urgency, but lacking the real legitimacy.
- Medical specialists belong to the dependent stakeholders (number 6). They have the urgency and legitimacy but lacking the real power. They lack the real power because they are not part of management, who have the power to change things.
- When stakeholders possess all three components, organisations have a clear and immediate mandate to attend to and give priority to that stakeholder's claim. The director care of stakeholder B and the program director Health & Care stakeholder B belong to the definitive stakeholders (number 7).

Summarizing the above information, Table 5 contains a short overview which employees of the different organisations will be interviewed.

Table 5 Identification of stakeholders as respondents

Role of the interviewees:	*Number of interviewees:*	*Type of stakeholder:*
Medical specialist	3x (1 specialised in COPD, 2 specialised in heart failure)	dependent
Sales controller	1x	dominant

Role of the interviewees:	*Number of interviewees:*	*Type of stakeholder:*
Manager Lung- and Cardiology department	1x	dominant
Director Care	1x	definitive
Program manager innovation	1x	dominant
Relations manager	1x	dominant
Controller Finance	1x	dominant
Program director Health & Care	1x	definitive
Employee stakeholder X	1x	dangerous
Employee stakeholder Z	1x	discretionary
Employee Stakeholder A	1x	dangerous

4.3 Data collection

are two methods of doing interviews (Uwe 2011). The first method are structured interviews. Structured interviews consist of a list of questions that are asked to the respondent. Advantages of this method are that it can be administrated and coded easily. This form is more like a qualitative questionnaire. The second method are unstructured interviews. Unstructured interviews are more like having a conversation. The idea of this kind of interviews is that interviewees decide the direction of the interview and the researcher listens. Therefore, the interviewees can talk openly about what they think matters to the research question. In this research there was a combination of these two methods, semi-structured interviews will be conducted. This combines the best of the two techniques, it sets a structure with a list of topics to talk about, but it also allowed some free space for going deeper on interesting findings and topics. Table 5 gives an overview of employees who know the incentives in the contract, these employees were interviewed. The interviews lasted around 45 minutes. This will gave enough time to get the information needed for the research, and it did not take too much time from the respondents. The respondents were interviewed in Dutch, because this was the native language of the respondents. By doing this they could answer the questions as best as possible and they could express themselves the best (Given 2008). The interviews were recorded, by doing this it was possible to transcribe it afterwards. The transcribed data is anonymised, which means that names of employees are replaced by "Person X"," Person Z" etc., and by doing this no information could be converted directly to a

person. In this way every interviewed person could speak as honest as possible about everything without any fear of consequences of their opinions.

4.3.1 Interview content

The content of the interviews covered different themes, derived from the research questions. These different themes are about the institutional factors and the contractual incentives. First there were some questions about the contract and the incentives. Are they aware of the different incentives, and if so, what are the incentives according to them. And are they aware of the fact that they have an integrated contract with two organisations. By asking these questions it was possible to get more insight in the amount of information different stakeholders got from others. After some questions about the contract and the incentives, the question was which factor the interviewee think is most obstructive or fostering for the financial incentive. By asking this open question, the interviewee mentioned something that is most important for him. This could be an factor that is not found in literature, and to validate this factor, it was asked to other interviewees, to investigate if it is an important factor or not. The next part of the interview was about the different institutional factors (coercive, normative, and mimetic), and the influence of these factors on the incentives in the InBeeld contract. Their opinion whether the institutional factors are obstructing, fostering or have no influence on the effectiveness of contractual incentives was an important source of information for this research. The interview scheme can be found in appendix B. The interview ended with a table, were interviewees could give a score to every institutional factor. These factors were derived from literature, and by giving each of them a score it was possible to make a classification of which institutional factor is most important. All the participants in this research signed an informed consent, which is needed when conducting research with humans. By signing this informed consent, the participants declared that they were fully aware with the conditions of this research and approved with participating. The informed consent form can be found in Appendix C.

4.4 Data analysis

Several steps were taken in the analysis of the interview transcripts. The first step was coding the transcripts, in which labels were assigned to text units (Given 2008). Coding has different purposes. The purposes are data reduction, organization, and a substantive process of data exploration, analysis, and theory-building. During the analysis, the underlying concepts

(codes) were found due to open coding. This means that the transcribed interviews were carefully read, and relevant words and phrases were identified. This was done by using the qualitative clustering method, in which text that have similar patterns or characteristics were grouped and then conceptualized (Campbell et al. 2016), (Mallat 2007). The concepts used in this research, which are displayed in the research model in figure 4 (different institutional factors; fostering/obstructing; different incentives etc.) served as a basis for these codes.

The next step was identifying underlying patterns by grouping the initial codes into a smaller number of themes, often referred to as axial coding (Given 2008). These patterns were compared across the different interviews. The codes across different interviews were grouped together in tables, so there was an overview of the different opinions of different stakeholders about an subject. For example, the opinion of different stakeholders about information exchange were grouped together, and therefore it was possible to create an overview of the influence of this factor on the contractual incentives. By doing this it was possible to compare answers from different respondents with each other to investigate if there were any patterns.

When all the interviews were coded the right way, the last step in the process was interpreting and reporting the data. This step consisted of looking at the codes if there were any comparison in the answers. By doing this it was possible to generate an answer on the research questions.

5.Results

In this section the results are presented. The first sub-question is a description about the different incentives in the contract between insurance companies and the different stakeholders. These incentives are extracted from the contract itself. After this the influence of the different institutional factors on these incentives is described. The answers on this sub-question is derived from interviews with the different stakeholders. The last sub-question is about the influence of the insurance company themselves on the contractual incentives. The second research question showed that there are institutional factors that obstruct the incentives for being effective, the insurance companies could make some adjustments in the contract, in order to diminish the obstructive factors, before extending the contract with the different stakeholders.

5.1 Contractual incentives in the contract between the insurance companies and the different stakeholders

This part explains the contractual incentives that are inserted in the contract between the insurance companies and the different stakeholders. There are financial incentives, as well as non-financial incentives. First there is a description about the financial incentives. Investigating the contract the insurance companies arranged with the different stakeholders, the insurance companies inserted the following financial incentives:

- The first financial incentive is about the cost of care for COPD/heart failure patients. The insurance company is going to compare the invoices of the COPD/heart failure patients of the stakeholders with the norm budget. The norm budget are the costs for COPD/heart failure patients the year before the contract was arranged, the year 2016. The insurance companies compares the costs of care for every contract year with this norm budget. When the costs are higher than the norm budget, the stakeholders must pay half of the costs themselves. When the costs are lower, they have half of the profit. So there are shared risks in the contract (Lafontaine 1992), every party has equal costs and benefits at the end of the contract.
- The second incentive is that the budget is integral, so the stakeholders have one budget together, instead of both their own budget. With this budget the stakeholders are responsible for the hospital care and home care for COPD/heart failure patients during the duration of the contract. The insurance company made the two healthcare providers together responsible for the results and financing of the patient care. The

stakeholders should arrange agreements together regarding the division of the budget and the division of the potential risks and benefits of the contract. So, this is could be defined as a financial incentive, they must work together and collaborate to create the best outcome for both.

- Then there is an incentive on the investment costs. The insurance company defined investment costs as: "additional costs that were needed to provide care for patients in the "InBeeld" contract". Investments stakeholders had to make were for example purchasing IPAD's and software for these IPAD's to provide care for patients at home. The insurance company made a calculation on the costs of these investments, and all these costs were financed by the insurance company at the start of the contract. If there is, at the end of the contract, no decrease of 5% per patient in healthcare costs, then the stakeholders need to pay 100% of these costs back. If the stakeholders achieve a reduce of 5% per patient in healthcare costs they don't have to pay it back.

Besides the financial incentives, there are also some non-financial incentives included in the contract. Mathauer and Imhoff (Mathauer and Imhoff 2006) defined non-financial incentives as: "Non-financial incentives are by contrast those incentives that involve no direct transfers of monetary values or equivalents to an individual or group". Non-financial incentives will not result in a financial reward, but it could be an effective way in maximizing the outcome (Hughes, Yohannes, and Hillig 2007).

The following non-financial incentives are inserted in the contract between the insurance company and the stakeholders:

- The insurance company arranged a contract with the stakeholders for the duration of three years. With the 3-year contract, there is a feeling that the stakeholders could influence the outcome themselves, so they are participating actively to make the contract work. They get a budget from the insurance company and get the freedom to use the budget. So, they could influence in which way they could work most effective and efficient. This is a non-financial incentive because this is not directly about money, but more about participation and influence of the different stakeholders on the outcome of the contract.
- Another non-financial incentive is about the amount of COPD/heart failure patients. The baseline number of patients are the patients that are diagnosed in the hospital with COPD, before the start of the contract. Based on this number of patients the insurance company created the contract. The amount of patients will increase according to

epidemiologist (Henoch et al. 2016), but there will not be adjusted for this increase, unless the amount of patients increases with more than 5% over the three year of the contract. When this is the case, there will be new negotiations. By not adjusting for the increasing number of patients, the stakeholders must try to maintain care efficient and temper the increase of patients. Therefore, this is an incentive to work efficient and collaborate with each other to lower the costs.

The contract has two scenarios for this incentive, one when the number of patients increases with more than 5%, and one when the increase is less than 5%.

- Scenario 1 increase of more than 5%: insurance company and the stakeholders will sit together to identify the cause of the increase and decide what they could do about this. If the stakeholders could assure efficient care for these patients, then the insurance company will support the increase in patients and there will be new negotiations about the financing of these patients. In this case, the baseline for the number of patients will be adjusted for the next year. If there will be no negotiations about the increasing number of patients, these patients will not be part of the "InBeeld" contract but will be part of the regular care process.
- Scenario 2 increase of less than 5%: the average integral costs per patient is decreased and the total integral costs are also decreased (because the average integral costs per patients decreased that much, the increasing number of patients could be financed with this decrease). Consequences of this variant are that the budget for the stakeholders will be the same next year. After the 3-year contract the insurance company will get a 50% benefit from the decrease of total integral costs. The other 50% decrease of costs will be for the other healthcare providers.

With this incentives the insurance company tries to accomplish that the stakeholders will work together to achieve efficient and effective care.

Given the above information, Table 6 gives a short summary of the different incentives in the contract between the insurance company and the stakeholders:

Table 6 Summary of the different incentives

Incentive	**Short explanation**
Financial	
Total cost of care for COPD/heart failure patients	When costs are higher than the norm budget, the stakeholders must pay half of the costs themselves. When the costs are lower, they have half of the profit.
The budget is integral	The stakeholders having one budget is a financial incentive to work together and collaborate to create the best outcome for both. Incentive for all the organisations to work together in achieving the same goal.
Financing of the investment costs	If there is at the end of the contract no decrease of 5% per patient in healthcare costs, the stakeholders need to pay the investment costs back. If there is a reduce of 5% per patient, they don't have to pay it back.
Non-financial	
The duration of the contract	With the 3-year contract, there is a feeling that the stakeholders could influence the outcome themselves, so they are participating actively to make the contract work.
Number of patients	The baseline number of patients are the patients that are diagnosed with COPD, before the start of the contract. If the number of patients doesn't increase with more than 5%, the budget will stay the same. By not adjusting for the increasing number of patients, stakeholders must try to maintain care efficient and temper the increase of patients.

5.2 Institutional factors at the different stakeholders that influences the effectiveness of the contractual incentives

There are different institutional factors that could influence the effectiveness of contractual incentives. The different factors are identified in literature, and some factors are suggested by the different stakeholders during the interviews. By asking an open question first, which factor at their company they think influences the effectiveness of contractual incentives, it was possible to get a clear view of important factors according to the different stakeholders. After this the several factors which were found in the literature were questioned at the different stakeholders. At the end of each interview, the interviewee was asked to give a weigh to each of the different factors. By doing this it is possible to make a classification of the importance of the different factors.
At the end it was possible to create a comprehensive view of the influence of the different institutional factors. This influence, either fostering or obstructing, will be explained next.

5.2.1 coercive factors that influence contractual incentives

The first five factors in the research model are so called coercive factors. These factors are forces that have external pressure exerted by government, regulatory or other agencies, to adopt the structures or systems that they favour. So, this kind of institutions set the rules and organisations must adhere to that. Examples of these pressures are legal requirements and health and safety regulations (DiMaggio and Powell 1983).

The first coercive factor is about information exchange between different stakeholders and professionals regarding InBeeld care. There are three interviewees who mention that the so called “platform bijeenkomsten” and PGO are fostering for the incentives in the InBeeld contract. The “platform bijeenkomsten” are meetings between the different professionals where they discuss with each other about InBeeld and about patients. By doing this everyone is up-to date about the status of InBeeld and the different patients. The PGO is a personal health environment of a patient. In this digital environment, every health professional which is involved in the care of a patient could check the status of a patients and could remark any changes. With this digital file, the information exchange is a lot easier compared with the old way, in which different professionals send each other letters with the status of a patient. But the PGO isn’t yet widely used, it is just a trial version. So, this does not relieve all the obstructive things which comes hand in hand with information exchange.

Information exchange is often mentioned as an obstructive factor in the InBeeld contract. The most obstructive factor is that every stakeholder has his own system, which are not compatible with each other. For example, the medical service centre, which is the integrator of the InBeeld project, could not check the status of the patient in the hospital file when a patient calls them for help. So, they must rely on the information of the patient for that moment, instead of checking it in the system of the other stakeholders. Several interviewees mention that a solution for this could be the obligatory use of one file with all the professionals who are involved in the care of a patient. They also agree that this is not possible yet but will be in the future.

> *"Nowadays information exchange is about pushing and pulling information. When we have seen a patient, and for example changed the medication, we push this information to other professionals. But this is not the way it should be done. Other professionals should check information like this when they need it, instead of us pushing this information to them. And one central dossier, with every health professional which is involved in the care of a patient, would make a lot of difference!"*

This quote shows that information exchange nowadays doesn't goes the way it should go. Information should be widely applicable for all stakeholders, instead of pushing information to each other. The interviewees score information exchange as the highest coercive factor, with an average of 6 out of 10 on influence of this factor on the effectiveness of the contractual incentives in the InBeeld contract.

The second coercive factor are regulations. During the interviews no one mentioned regulations that are, or could be, fostering the contractual incentives in the InBeeld contract. On the other hand, seven interviewees mentioned that regulations are an obstructive factor for the contractual incentives in the InBeeld contract. Examples of factors that are obstructive are the AVG and the law for competition. The AVG is a regulation to assure the privacy of the patients. But this regulation causes also problems in exchanging information of patients between nurses of stakeholder X and medical specialist of stakeholder Z. The AVG makes it hard for some stakeholders to exchange information and therefore some work isn't done effectively, which negatively influence the effectiveness of the contractual incentives. The law for competition is a law that assures fair competition. This law should assure that every party should have the same changes and possibilities to provide care for patients. According to this law it is not allowed to make agreements between different parties about prices and care of patients on a large scale. When these agreements make it impossible for other parties

to provide care for patients, then this could lead to a lawsuit. So, this law makes it hard for an insurance company and a healthcare provider to make agreements for the care of COPD/heart failure patients on a large scale. Nowadays the InBeeld project includes only 100 patients, which makes the law not that obstructive, but when InBeeld will include more patients in the future, this law could be very obstructive.

There are also five interviewees who mention that the AVG isn't that obstructive, because health care providers have an agreement with a patient to deliver care. Because of this agreement they could exchange information about the patient with each other, without causing any troubles of privacy or something else. There for they argue that the AVG isn't obstructive. On average the different stakeholders give this factor an 5,3 out of 10 on the influence of this factor on the effectiveness of the contractual incentives.

The third factor is about organisational structures and organisational change for the InBeeld contract. There is not much organisational change at the different stakeholders since the InBeeld contract. The role of the different professionals is the same as before the start of InBeeld. There is some change in the way the hospital clinic is organised, but this does not affect the organisational structure or organisational change. The focus of care changed from treating patients to preventing that patients get sick, but this has not yet affected the organisational structures at the different stakeholders. There are only 100 patients who receive InBeeld care, compared with several thousand patients for example medical specialist have. So, the decrease in hospital visits is not yet significantly reflected in any decrease in work pressure for the health care professionals.

One obstructive factor in the organisational structure that six interviewees mention is the role of the nurse practitioner. The role of the nurse practitioner is a vulnerable, but also a critical role in InBeeld. Interviewees mention that good nurse practitioners are hard to find nowadays, and specifically during holidays and sickness, this role is a vulnerable one. Since there are few nurse practitioners at the different stakeholders, the working pressure for these nurses is high. Nurse practitioners do the inclusion of patients and are also the "spider in the web" of the whole InBeeld project. Therefore, this role is critical, but also vulnerable in the InBeeld project. When a nurse practitioner gets sick or is no longer available, then this would be a big setback for the InBeeld project, and therefore is an obstructive factor for the InBeeld contract, according to different interviewees. The importance of organisational structure on the effectiveness of contractual incentives is not high, on average interviewees score this factor 5 out of 10.

The fourth coercive factor is procedures and protocols. There are some procedures and protocols that employees should follow during their work activities. Employees of the medical service centre must follow, for example, a strict protocol when they receive a call from a patient who isn't feeling well. These protocols and procedures could be either obstructive or fostering the effectiveness of contractual incentives in the InBeeld contract. Some stakeholders explain that the protocols and procedures are fostering, because due to the protocols every person treat the patients in the same way. Everyone should treat the patient the same way, which makes it for everyone clear and there is a same high standard in treating a patient. According to three stakeholders, protocols and procedures are fostering the effectiveness of care, and therefore have an positive influence on the contractual incentives.

On the other side five stakeholders mention that protocols and procedures are obstructing the contractual incentives. They think that the procedures and protocols are not up-to date for the new way of care InBeeld delivers, and there for this factor is obstructive. An example of a procedure that health care professionals must follow, is that an COPD patient need to come to the hospital at least once a year for a check-up, even when this is no longer needed with the InBeeld care. Another example of procedures that could be obstructive is that professionals fall back on old procedures when there is a high work pressure. Different interviewees mention that there is a high work pressure in the hospitals, and therefore professional sometimes follow the old procedures with patients instead of providing the InBeeld care. Because the InBeeld project is more work for professionals than the old way of working.

> *"When health care providers have a waiting room full of patients, the working pressure is high, they will help these patients first. They will do this in with the old procedure instead of providing InBeeld care, because the InBeeld care will take more time. With the waiting room full of people, this has more urgency than InBeeld, and therefore the professionals fall back in their old procedures".*

There are also two stakeholders who think that protocols and procedures have no influence on the effectiveness of contractual incentives. They think that it is possible to work the way they think is best for the patient, instead of just following the protocol. Overall seen the different stakeholders give this factor a 4,6 out of 10, which is the lowest average out of all the factors in this research.

The last coercive factor are the different incentives in the InBeeld contract. The incentives could be seen as coercive factors, because they put pressure on the different stakeholders to work effective and efficient. Interviewees think that the incentives are well defined. The incentive on investment costs gives the stakeholders pressure to achieve the best care possible, to deliver effective and efficient care. And therefore, they think this is a good incentive. The shared savings model is also a good model for this kind of care, because it is an innovation in care, so every party has shared risks, but also shared benefits. Overall seen, the incentives in the InBeeld contract are well defined for now.
On the other hand, professionals do not act upon these incentives. They do not change their way of working due to these contractual incentives. Medical specialist provides the care for individual patients which is the best for that patient at that moment. They do not act upon the financial incentives, a reason for this could be that the population of InBeeld patients is to low, so the medical specialist does not perceive any financial change due to the fact they see less patients due to InBeeld. They treat patients the best they can and are not looking at the financial aspect. This will be discussed further in the next section.

5.2.2 Normative factors that influence contractual incentives

Besides coercive factors there are also some normative factors. Normative factors reflect standards and values in a certain industry or organisation. Normative forces are forces that describe the effect of professional standards and the influence of professional communities on organizational characteristics (Ashworth, Boyne, and Delbridge 2007). The different interviewees score the normative factors the highest of all institutional factors, which indicates that these factors have the most influence on the effectiveness of the incentives in the InBeeld contract.

The first factor is motivation of the involved persons in the InBeeld contract. This factor scores the highest of all factors on the influence on contractual incentives. Interviewees score an average of 8,4 out of 10 on this factor. They think that motivation is key in the whole InBeeld contract, because without the motivation of the different stakeholders, InBeeld could not exist. During the interviewees it became clear that everyone is highly motivated to perform, and to make InBeeld a success. Everyone sees the added value of InBeeld for patients. Patients are feeling better and safer with InBeeld care, and it is seen as good care. So, the motivation is high, and this is fostering the incentives in the InBeeld contract. At the start of InBeeld, there was some sceptic about the whole project. For example, medical specialist

doubted about the effectiveness of InBeeld, and the way this could affect their work. The insurance company gave the medical specialist a so called "noodknop". With "noodknop" medical specialist got the option to stop the project any time when they think this care isn't good for patients, or when they lost a big part of their income. This helped to relief the scepticism from these medical specialists, because they had the option to stop it, although they say that they already known at the start of the project that they would never use it. This option gives them a bit of autonomy and assurance that they have an escape when it did not meet their expectation of the InBeeld project.

> *"We had nothing to fall back on, no literature or something, because this was an innovation. So, we wanted a "noodknop" on a few points. If the care would not be good, or there would be a huge change in my way of working, or they would be a huge deficit in my income. Then we could use this "noodknop" to start new negotiations."*

This option could be a fostering factor in the effectiveness of the contractual incentives. It is important to keep this motivation at the level it is nowadays, because when healthcare professionals do not have to motivation to make InBeeld a success, the whole InBeeld contract could be terminated and incentives will be useless.

There is also one factor mentioned that could lower the motivation of medical specialist to make InBeeld an success. This factor is the fact that medical specialist paying a part of the work nurse practitioners do. Due to InBeeld nurse practitioners do some degree of work the medical specialist did before InBeeld was offered. For example, the nurse practitioners monitor the patients through telemonitoring, instead of the patient who is seeing the medical specialist four times a year. So, the medical specialist is paying the nurse practitioner for work he did before InBeeld. Medical specialists and also management of the healthcare organisations mentioned that this is a wrong incentive in the InBeeld contract, which has a negative effect on the motivation of medical specialist. The way of financing the nurse practitioner for InBeeld should be changed according to them, so nurse practitioners for InBeeld should be financed by the hospitals and insurance companies, instead of by the medical specialists.

The second normative factor is about the influence and participation of employees on the design of the contract. According to the interviewees this is the second most important factor of all factors, with an average score of 7,6 out of 10 on the influence on the effectiveness of the contractual incentives. It is important that the opinion of employees is incorporated in the

contract, because when the felt they had influence on the contract, they will work harder to achieve the outcome of the contract. Participation/influence on the design of the contract goes hand in hand with motivation, high participation leads to high motivation.
Most of the interviewees agree that they had enough influence on the design of the contract. They agree that they participated in the design and had enough input on the design of the InBeeld contract. The contract was created with the input of all the involved organisations, and everyone had enough input. This is fostering for the contractual incentives in the InBeeld contract, because they had influence on the incentives themselves.

Although almost everyone agrees that they had enough influence on the design of the contract, also some interviewees mention that, in their opinion, they did not have enough influence on the contract. Especially the healthcare professionals, the persons who need to achieve the reduce of costs and reduce of hospital admissions, did not had enough influence on the design of the contract. Some interviewees mention that the contract is a management contract, and the healthcare professionals are not the owner of the contract. Therefore, they do not act upon the contractual incentives, and the reduce in costs isn't that high as expected. This could be an obstructive factor for the contractual incentives.

The last normative factor is about the function and roles of employees in the InBeeld contract. According to the interviewees, this factor is less important than the first two normative factors. Functions and roles of employees score 5,3 out of 10 on the influence on contractual incentives. One aspect of this, which is fostering the contractual incentives, is that everyone knows what their role and function is in the InBeeld project. Everyone knows what they could do for a person, and if they could not help a patient, they know which professional could. This division of work is fostering the contractual incentives, because this is efficient and effective care.

On the other side, the fact that everyone has strict roles and functions in the care of patients causes that there is less of a confidential bond between patient and healthcare professional. According to some interviewees this is an obstructive factor for contractual incentives in the InBeeld contract. Another obstructive factor is that medical specialist receive often questions from the medical service centre, which should be answered by someone else. These relatively easy questions should be answered by a nurse or general practitioner instead of the medical specialist. By asking these relatively easy questions to a medical specialist, this cause much extra work for the medical specialist, which is not favourable for the motivation of medical specialist.

"I often get relatively easy question, from for example the medical service centre, about a patient. An example of this is that patient gained a little bit of weight, and what they should do with this. I think that these easy questions could be answered by a nurse or general practitioner, instead of a more "expensive" professional like the medical specialist. And besides the costs, these simple questions cause sometimes irritation by some professionals…"

5.2.3 Mimetic factors that influence contractual incentives

The last two factors are mimetic factors. Mimetic factors score the lowest out of the three institutional factors and could therefore be the least important factor for the effectiveness of contractual incentives. Mimetic factors are forces that arise from imitation. This means pressures to copy or emulate other organizations activities, systems or structures. Organisation are having a tendency to imitate other organisations/initiatives that are successful (Ashworth, Boyne, and Delbridge 2007).

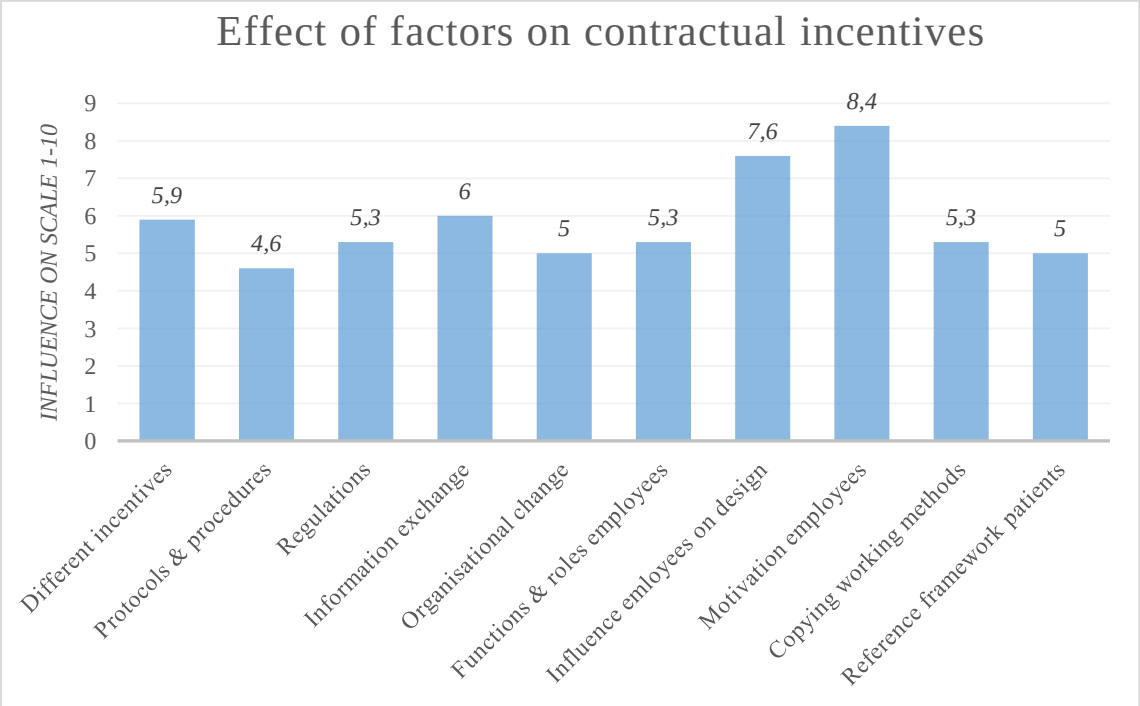
The first mimetic factor is about employees copying other professionals in their working activities. Interviewees think this does not has that much of an influence on contractual incentives. The score this factor 5,3 out of 10. They think this does not has much influence since they do see how each other works that much. The only place where this could have influence is at the medical service centre, because the nurses sit together in providing InBeeld care to patients. In this way they could copy how a colleague deals with certain problems with patients. But on the other side interviewees mention that the way employees help patients could not differ that much, because they must follow a protocol in helping patients during InBeeld care. So, they think this will not have that much influence on contractual incentives. The so called "platform bijeenkomsten" could be fostering the contractual incentives, because employees discuss cases with each other, and how the dealt with certain problems. So, this could be a mimetic factor that fosters the contractual incentives, but overall this factor has not that much of an influence on the contractual incentives.

The second mimetic factor that could influence the contractual incentives are reference frameworks of patients regarding InBeeld care. This factor does also have a low score on importance regarding the contractual incentives, it scores an average of 5 out of 10. Nevertheless, the interviewees think reference frameworks of patients could have a positive influence on the contractual incentives. Patient satisfaction scores are high, which indicates that patients are satisfied with the care of InBeeld. They are feeling better and safer with the

InBeeld care, because they could contact a professional every moment of the day. This possibility of contacting a professional makes them already happier and gives them a safer feeling. Besides this they tell other people about their positive experiences with InBeeld, which could mean that other people are also willing to receive the InBeeld care. There will be a positive image about InBeeld, which could help in upscaling the whole InBeeld project. Upscaling is an important topic in the InBeeld project, because this will relief a lot of obstructive factors in the InBeeld contract. This will be discussed in the discussion part.

Summarizing the above sections, the next table will give a short overview of the importance of the different institutional factors on the contractual incentives in the InBeeld contract. This table makes clear that influence of different stakeholders on the design of the contract and motivation of the different stakeholders are the two most important factors.

Figure 7 Effect different institutional factors on contractual incentives InBeeld



5.2.4 Other factors that influences contractual incentives of the InBeeld contract

Besides the institutional factors found in literature, there are also some factors which are mentioned by the different stakeholders themselves during the interviews. The most important factors will be discussed next. First the positive, fostering factors will be discussed. These factors are employees who know each other and the privatisation of the medical service centre. Different employees of the different stakeholders know each other very well. Most of

them have worked with each other before and therefore they have tight communication. They communicate well and know which person they could ask when something is wrong with a patient, therefore this is factor is fostering the contractual incentives in the InBeeld contract.

On the other hand, interviewees mention some additional obstructive factors, which are time, scale of the project, and inclusion of patients. According to different interviewees time is an important factor, because most people simply don't have the time to intensively participate in the InBeeld project. As already mentioned before most professional have a waiting room full of people, and therefore there is a big pressure on the time professionals could spend on the InBeeld project. Ideally, professional should make or have the time for InBeeld, for example at least one hour a day. But due to the time pressure and the working pressure of their regular work, they sometimes do not have the time to work for InBeeld the best they can. This time is needed to make InBeeld an success, and therefore this is an obstructive factor for the contractual incentives. Another obstructive factor is the scale of InBeeld. Because InBeeld is relatively small (only 100 patients included) it makes it hard to establish the whole care process for these patients. It is a relatively small portion of the patients for example a medical specialist has, so therefore the care will not change due to InBeeld. Most of the medical specialist are aware of the incentives, but they do not act upon these incentives. It is a small portion of their work, so they treat the patients the best they can, and how they think the patient will be treated in the best way. This is a good way of working, the patient should be treated in the best way possible, but when the scale of InBeeld will be bigger, the professional will be forced to treat them with InBeeld, otherwise they will not meet the contractual incentives and must pay certain costs themselves. The last obstructive factor mentioned by interviewees is the inclusion of patients. The most important reason that the financial aspect of the InBeeld contract is less positive than during the pilot, is that the patients who are now in the InBeeld project are healthier. The patients who are now in InBeeld had already less hospital admissions compared to the patients in the pilot, so therefore the effect is less now compared to the pilot. Interviewees mention that, in general, the results of a pilot will never be repeated in practice, because in a pilot the "best" participants will be selected. This effect will reduce when an innovation is implemented in practice. Interviewees mention that there are too much patients in InBeeld who already few hospital admissions had, therefore the effect is less clear than during the pilot.

> *"A goal of InBeeld is to reduce hospital admissions. When you include 2 patients who have 10 hospital admissions a year, but also 8 patients who have 1 hospital admission a year, then the effect will reduce... While the big gain will be at those 2*

patients with a lot of hospital admission. But that population is less than expected, therefore the effect is less than during the pilot... "

Therefore, inclusion could be an obstructive factor for the contractual incentives. The inclusion should be stricter to reach the same effects as in the pilot.

5.3 Influence of the insurance company on contractual incentives to increase their effectiveness

Insurance companies could also influence the contractual incentives to increase their effectiveness. They could do this in different ways, these ways will be explained next. The first one is about the incentives themselves. At the start of this research it was not clear whether the incentives were known by the professionals, and whether they act upon these incentives. During the interviews it became clear that this is not the case.

5.3.1 Healthcare professionals do not act upon the financial incentives

The financial incentives in the InBeeld contract do not enter the daily routine of healthcare professionals. The healthcare professionals who were directly concerned with the design and negotiations of the contract do know the incentives. On the other hand, professionals who were not directly concerned during the design stage are not fully aware of the financial incentives. Different interviewees mention that a reason for this is that they have seen the contract, and the incentives, at the start of the InBeeld project, but they already forgot most of it nowadays. Besides this, employees who were employed later in the InBeeld project and have therefore no knowledge of the design stage of the contract, mention that is hard for them to understand the whole contract. At this point insurance companies could do something to make it easier for employees to understand the contract. For example, they could make a simple appendix with the main topics of the contract, and in this appendix clearly mention the financial incentives. When they do this, this makes it easier for new employees to understand the contract, and therefore the effectiveness of the incentives could also be higher. Because everyone could refresh their knowledge about the contract with this clear appendix. This would be a lot easier and save a lot of time, instead of reading the whole contract. Almost every interviewee mention that it was hard for them to understand everything that was stated in the contract, and they had to read it multiple times before understanding everything. A simple appendix for every employee will save a lot of time, and professionals already have such a high working pressure, so they do not have the time to read a contract 2 or 3 times.

During the interviews it became clear that healthcare professionals don't have the feeling that something changed in their working activities, not due to the new InBeeld contract. They agree that the focus of care has changed from reactive to proactive, but they do not feel that this changed their working activities during the day. Besides this they agree that they do not act upon the financial incentives. There are multiple reasons for this. The first

reason is that they mention that, as healthcare professionals, they do what is best for an individual patient. Their focus is on treating patients instead of the financial aspect of the care. The most important reason for not acting upon the financial incentives is that health care professionals do not have the feeling that they are the owners of the contract. The InBeeld contract is a management contract, and the professionals, who need to deliver the care and are the persons who need to deliver the results, do not have the feeling that they are the owners of the contract.

> *"I think this contract is a management contract, and the healthcare professionals do not have the feeling of ownership in this contract. But then is the question, for who are the financial incentives an incentive? Because the professionals are the ones who need to realise the change in care..."*

They mention that this is the biggest reason for not acting upon the incentives. The insurance company should, in corporation with the stakeholders, create the feeling of ownership by professionals, to make the financial incentives more effective. The feeling of ownership by professionals will also have a positive influence on the motivation of the professionals, which is mentioned as the most important factor for making financial incentives work.

Another reason for not acting upon the financial incentives is the relatively small scale of the InBeeld contract. Because InBeeld is a small part of the work for healthcare professionals, they do not have the urgency to change their working activities and act upon financial incentives. The insurance company and the stakeholders could change this by implementing InBeeld in a larger population. When this will be the case, professionals are forced to change their working activities and change their routine. With a larger scale the urgency of InBeeld is higher, and the effectiveness of the financial incentives will be higher. A larger scale of InBeeld will also prevent another problem mentioned by different stakeholders, which will be discussed next.

5.3.2 The role of the nurse practitioner is a key role in InBeeld, but also a vulnerable position

Several interviewees mentioned that the role of the nurse practitioner is an important role in the InBeeld contract, but this role is also vulnerable. They mention that in the COPD InBeeld care there is only one nurse practitioner, which is vulnerable because when this person leaves, or get sick, this would be a big setback for InBeeld. The nurse practitioner is an important person because this person includes the patients in InBeeld and is the ambassador for the whole InBeeld project. By having one person in this role, a person who has the most experience and knowledge of InBeeld, makes it a vulnerable position for the success of the

InBeeld contract. Interviewees would like to have an extra nurse practitioner, to make this position less vulnerable. Insurance companies could help to realise this by creating a larger scale for InBeeld. When there are more patients to treat, the interviewees mention that it will be possible to hire another nurse practitioner, because there is more budget. This will make InBeeld less vulnerable. The most ideal solution for this problem will be that the different stakeholders could educate an own InBeeld nurse practitioner, which has the knowledge and skills for InBeeld. This could be possible in the further, when the scale of InBeeld is higher. This factor could have influence on the incentives, because when the nurse practitioner got sick or leaves, this makes it much more complicated to reach the financial incentives.

5.3.3 General practitioner should be part of the contract as well

There are multiple interviewees who mention that they think it would be a good idea to make the general practitioner part of the contract as well. According to different stakeholders the general practitioner could have a crucial role in prevention. General practitioners should prevent that the health of patients will decrease. By preventing this decrease in health status will result in better health of the patients, and at the end a more successful InBeeld project. Multiple interviewees mention that they think that the insurance company should include the general practitioner in the InBeeld contract, next to the stakeholders. Medical specialist also mentions a reason why this will be a good idea, because the general practitioner could reduce the working pressure of medical specialist. Medical specialist receives nowadays a lot of question about patients. A lot of these question could be answered by a general practitioner or nurse, instead of a relatively expensive, and over qualified medical specialist. According to the medical specialists, they get a lot of easy question, and they think that this could be answered by other people lower in the care pyramid. This will save them a lot of time, and these easy questions also tend to create a bit of frustration by the medical specialists. So, by including the general practitioner in the InBeeld contract, this will be prevented.

5.3.4 Influence insurance companies already had on the contractual incentives in the InBeeld contract

There are a few things insurance companies already did to make the contractual incentives more effective. But there are also some things insurance companies did not do, and which they should do better in the further, to make create an optimal environment to make InBeeld an success.

The insurance company created a so called “noodknop” for medical specialists to stop the InBeeld project any moment of time when they think it will have a big effect on their work. Examples of this influence could be that the care of patients would not be of a high standard, and therefore patients will be treated less good as before the contract. Another example could be that, due to the InBeeld contract, the income of medical specialist will be much lower as before the contract. Because medical specialist is not employed by the hospital, they get payed per patient. When they have less patients due to InBeeld, they could lose a part of their income. When this decrease of income is dramatically high, then they could use the “noodknop” to start new negotiations about the terms in the contract. Inserting this “noodknop” had a positive influence for the motivation of medical specialists, because they felt that they had an influence on the contract and have autonomy of their own activities. Implementing this “noodknop” had a positive influence on the institutional factor motivation, and therefore it was a good choice of the insurance company to insert this option in the contract. Another factor that reduced the sceptics of medical specialist regarding InBeeld was that the insurance company reimbursed the investment cost of InBeeld. By doing this they showed the medical specialist that they were willing to invest in it as well. Insurance companies made a big effort for making InBeeld a success, and by doing this they showed that they must do it with each other. According to different interviewees this was a big gesture from the insurance company, and this showed the medical specialist that it was a co-creation of different parties and convinced them to take part of this co-creation as well. This positively influenced InBeeld, and therefore has a positive influence on the effectiveness of the contractual incentives.

But during the interviews, different interviewees mentioned also a few things insurances companies could have do better to increase the effectiveness of contractual incentives. According to insurance companies InBeeld is a co-creation of all the different organisations, but some interviewees have the feeling that is more the insurances company controlling the other organisations. This is a missed chance for the insurance company to change the paradigm of insurance companies controlling health care organisations. In the opinion of different interviewees The insurance company is not proactive enough in sharing information with the other organisations. Especially now the results of InBeeld are lower than expected, other organisations would have seen that insurance companies showed them figures on how they performed compared to others. By benchmarking InBeeld with other care for COPD and heart failure patients, they could have seen how they performed compared to the

rest. And when they performed less good as other organisations, then they could react on that by investigating why they perform less good. But when they do not know how they perform compared with other, it is hard for them to give a reason for the lower results of InBeeld.

> *"The effects of InBeeld are less than expected. So now I am really curious how the effects are in other regions, or other hospitals. So, the benchmarking with other organisations. These results and figures of other organisations are not known by us, and we did ask for this by the insurance company. Maybe we perform not as good as expected, but better than others. Or maybe others perform better. When we know this, we could figure out why we perform less good. In my opinion the insurance company could do more in sharing information about this part."*

When insurance companies would be more proactive in sharing information about the performance of the participating organisations in InBeeld, this would have a positive effect on the motivation of the different stakeholders, and it would be more a co-creation of all organisations. This would have a positive effect on the effectiveness of the contractual incentives.

Table 7 Summary of the different factors

Summary of factors:	*Reason for importance:*	*Importance:*
Procedures & Protocols	No clear answer on this factor. Some stakeholders explain that the protocols and procedures are fostering, because due to the protocols every person treat the patients in the same way. Other stakeholders mention that protocols and procedures are obstructing the contractual incentives. They think that the procedures and protocols are not up-to date for the new way of care.	Low
Organisational structures	There was not much organisational change at the different stakeholders since the InBeeld contract. The role of the different professionals is the same as before the start of InBeeld. There is some change in the way the hospital clinic is organised, but this does not affect the organisational structure or organisational change.	Low
Regulations	AVG is an obstructive law, because they perceive the AVG making it more difficult to share information with the different stakeholders. Law for fair competition also obstructive, because this law makes it hard for an insurance company and a healthcare provider to make agreements for the care of COPD/heart failure patients, so could be obstructive for the contractual incentives in the InBeeld contract.	Moderate

Information exchange	Most important coercive factor. information exchange nowadays doesn't goes the way it should go. Information should be widely applicable for all stakeholders, instead of pushing information to each other	Moderate
Different incentives	No incentives that counteract each other in the InBeeld contract. So, this has no effect on the effectiveness of contractual incentives.	Low
Functions and roles employees	According to this research division of functions and roles have a positive effect on contractual incentives. Every employee knows which person is accountable for which part of care. They complement each other and there are close ties between the different stakeholders.	Moderate
Motivation employees	Motivation is the most important factor of all factors, and motivated employees foster the contractual incentives. The reason is that motivated employees perform better, which has a positive influence on the outcome (Van Knippenberg 2000).	**High**
Participation of employees in design	Everyone had participation on the design of InBeeld according to their specialism, so this has a positive influence on the contractual incentives. But the incentives aren't as effective as they could be, because the professionals who must realise the decrease in cost, aren't enough included on the design of the financial incentives.	**High**
Reference framework of users	It became clear that patients are really satisfied with InBeeld compared to other care. Patients experience overall better health and safety because of InBeeld. So, this has a positive influence on the contractual incentives.	Low
Working methods of other organisations	This doesn't have a big influence on contractual incentives. The different stakeholders do not often work together, so they do not copy each other's working activities.	Low
Inclusion of patients	Inclusion of patients isn't as strict as in the pilot, therefore this could be a reason for the less positive effects of InBeeld compared with the pilot	**High**
Time that different stakeholders have	The different professionals do not have, or take, enough time for InBeeld. They have too much time pressure with their regular activities, therefore they have not enough time to optimally work for InBeeld.	Moderate
Scale of the project	Due to the small scale of InBeeld (100 patients) there is not enough urgency to work for InBeeld. InBeeld is more something next to normal work instead of an own standard.	**High**
Employees who know each other	Positive effect on InBeeld. Everyone in this project knows each other and this fosters the communication and information exchange.	Moderate

Privatisation of medical service centre	Due to the privatisation of medical service centre they could specialise and focus on providing InBeeld care, which has an positive effect of the outcome, and therefore fosters the incentives.	Moderate
Lack of ownership feeling	Due to the fact that they have no feeling of ownership of the incentives, they do not act upon them. Therefore the incentives are not as effective as they could be. This is an important factor, which should be improved in other contracts.	**High**
Role of nurse practitioner	Nurse practitioner is important in the work and promotion of InBeeld. But because there is only one nurse practitioner this makes it vulnerable. When this nurse got sick or leaves, this is an set-back for InBeeld and makes it also harder to reach the financial incentives.	Moderate
General practitioner as part of contract	general practitioner could have a crucial role in prevention. General practitioners should prevent that the health of patients will decrease. By preventing this decrease in health status will result in better health of the patients, and at the end a more successful InBeeld project.	Low
Inserting the "noodknop"	The "noodknop" was an good way of assuring that the medical specialist were motivated to contribute to InBeeld.	Moderate
Missed change in co-creation	The insurance company could have done a bit more on sharing figures and numbers about InBeeld. When they showed how the different stakeholders performed according to other organisations, the insurance company showed transparency. This could have helped in the feeling of co-creation, instead of insurance companies controlling healthcare organisations.	Moderate

6. Conclusion

In this chapter the research question will be answered, which is the following:

In which way could institutional factors at healthcare companies influence the effectiveness of incentives in contracts according to multiple stakeholders and how could insurance companies influence the effectiveness of incentives themselves?

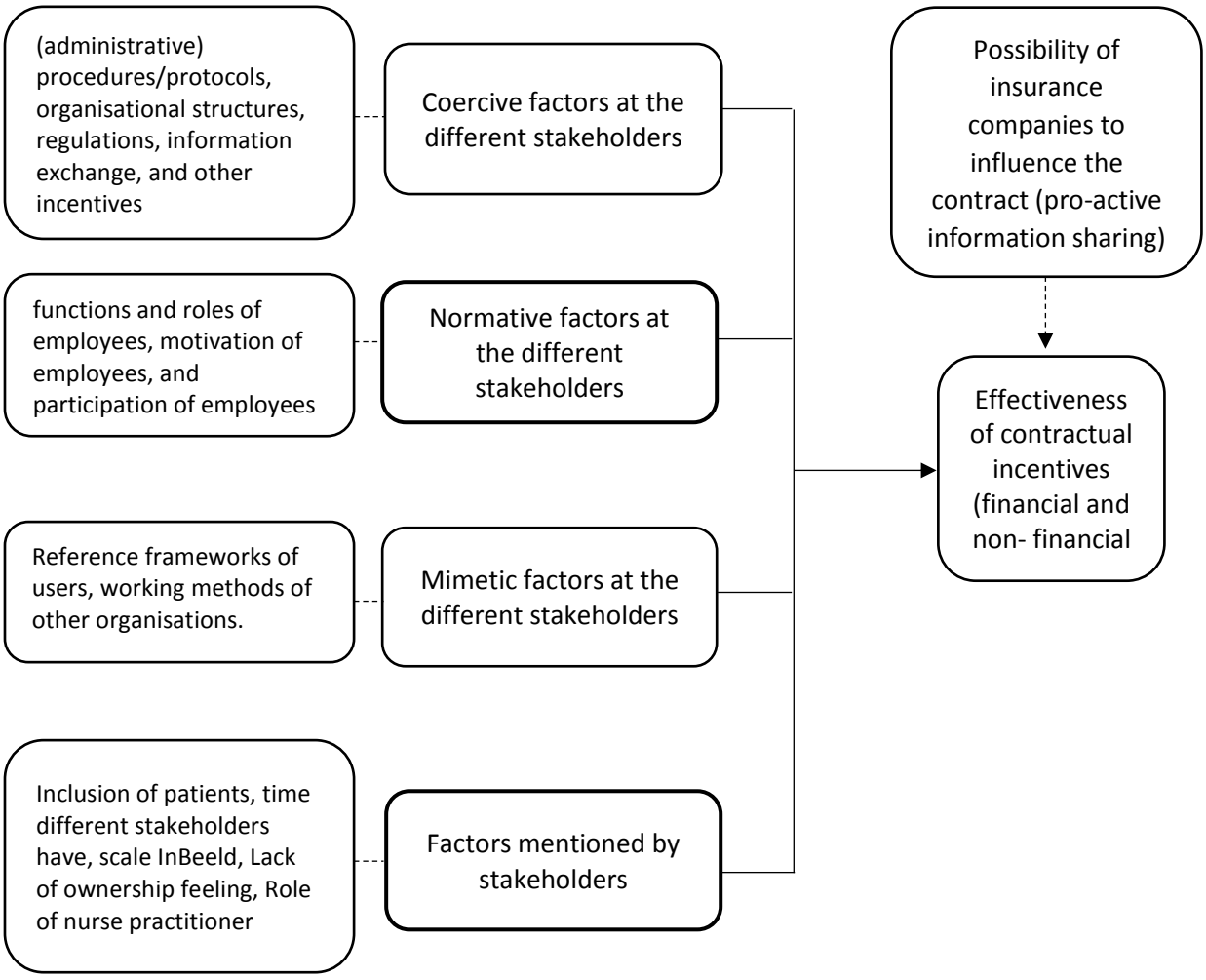
The contractual incentives in the InBeeld contract could be influenced through different factors, either obstructing or fostering the effectiveness of these financial incentives. The two most important institutional factors, which have according to interviewees the most influence on the effectiveness of contractual incentives, are influence on the design of the contract and motivation of the different stakeholders. When these two factors are high, this will have a positive influence on the effectiveness of contractual incentives. The motivation of the different employees is high in the case of the InBeeld contract, everyone sees that it is good for the patients. But despite this high motivation, the results of InBeeld are lower than expected. An important factor for this which is mentioned by the interviewees, is that the healthcare professionals, who should be the foundation of the success, have no feeling of ownership of the contract (Kuvaas 2003). Professionals agree that they have no feeling of ownership, and therefore they do not act upon the contractual incentives. According to respondents this is the biggest obstructive factor for the effectiveness of the contractual incentives. It wasn't the hypothesis that this factor could have an influence on the effectiveness of the incentives, so this is an unexpected outcome In the contract as it is nowadays, the influence of the professionals is mostly on care for patients, and less on the financial aspect of the contract. The feeling of most stakeholders is that the contract is a management contract, instead a contract of all stakeholders. Therefore, the professionals do not have the feeling of ownership, do not act upon the financial incentives, and this is obstructing the effectiveness of the contractual incentives in the InBeeld contract. Besides this there are a few obstructive factors which weren't expected at the start of this research. Interviewees mentioned the inclusion of patients, time different stakeholders have and the role of nurse practitioner as important obstructive factors on the effectiveness of contractual incentives.

The insurance company could influence the effectiveness of the contractual incentives themselves as well. As said above, they must assure in a further contract that the professionals, who need to perform the work in the contract, have a feeling of ownership of

the contract. By doing this the motivation is higher to make it a success. Besides this an important role for the insurance company is to assure a larger scale for the InBeeld contract. A lot of obstructive factors will be diminished by doing this. There will be also more urgency to adhere to the InBeeld care, and to the financial incentives, because it will be a larger part of the daily routine. Nowadays stakeholders mention that InBeeld is such a small part of their activities, that they do not mention any change in their work, and therefore also not change anything in their working activities. The last thing the insurance company should do to increase the effectiveness of InBeeld is to be a bit more pro-active in sharing information with the other organisations. InBeeld should be a co-creation of the different stakeholders, but as it is today the different organisation have the feeling that insurance companies controlling the other organisations. The organisation would like to see that insurance companies gives them more information about how they preform compared to other organisations regarding the care for patients. Since the results are less optimistic than expected, the organisations are curious about how they perform compared to others. When insurance companies share this with the organisations they could try to figure out why they perform less good than others. Maybe they perform less than expected, but still good compared to others. By sharing these figures, insurance companies could create the feeling that is more a co-creation and could change the paradigm of insurance companies controlling other organisations. This is a bit of missed change for insurance companies to change this paradigm.

The overall conclusion of InBeeld is that everyone is positive about the project, they see the benefits of patients, who are feeling better and safer. The motivation of almost every stakeholder is high, they want to make a success. This is the most important factor, which fosters the incentives in the InBeeld contract. But despite the efforts of every stakeholder, the results are less than expected. The main reason for this is that the professional has no feeling of ownership in this contract. Therefore, they do not act upon the financial incentives. This could be diminished by more participation of healthcare professionals on the financial aspect, instead of only the participation of professionals on the aspect of providing care for patients. Another aspect to diminish obstructive factors, like urgency and changing the daily routine of healthcare professionals, is enrolling InBeeld on a larger scale. By doing this there is more urgency to break with the daily routine, and InBeeld will be part of the ordinary way of providing care, instead of a small part of the care for COPD and heart failure patients.

Figure 8 Research model after results



7. Discussion

During this research, different institutional factors were derived from literature (Vermeulen 2011);(DiMaggio and Powell 1983). At the hand of these institutional factors, an interview protocol was derived. The data is collected from a total of 12 interviews with different employees from the different stakeholders. These employees have different functions, so a comprehensive view of the influence of these factors on the effectiveness of the contractual incentives was derived. Before this research, there were four propositions. In this section these propositions will be confirmed or rejected, and explanations for this will be given.

Proposition 1: Coercive factors are obstructive for the contractual incentives in the InBeeld contract is confirmed

The first proposition was that coercive factors are obstructive for the effectiveness of contractual incentives. Coercive factors consist of multiple factors, which all have an own proposition. These propositions will be confirmed or rejected, which will be discussed next.

The first proposition is about the incentives. The hypothesis was that it could be possible that certain incentives could counteract each other. This research showed that there are no incentives that counteract each other in the InBeeld contract. So, this has no effect on the effectiveness of contractual incentives. The only incentive that has influence on the effectiveness of the other incentives is the fact that medical specialists are paying nurse practitioners to do their work. So, they have to pay a part of the wage of nurse practitioners to provide care the medical specialist used to do before InBeeld. According to the management of the healthcare organisations and the medical specialists themselves, this is a wrong incentive, which has a negative effect on the effectiveness of other contractual incentives.

The second factor is about procedures and protocols that could be obstructive for financial incentives. These protocols and procedures are there to assure uniform and good care that is safe for patients (Shestopalova and Gololobova 2018). This research has no clear answer on this factor. The different stakeholders have different opinions on this factor. Some stakeholders explain that the protocols and procedures are fostering, because due to the protocols every person treat the patients in the same way. This assures a high standard in treating a patient (J. Meyer and Feingold 1993). Other stakeholders mention that protocols and procedures are obstructing the contractual incentives. They think that the procedures and protocols are not up-to date for the new way of care InBeeld delivers, and therefore this factor is obstructive. Also, some stakeholders mentioned that protocols and procedures have no

influence on the effectiveness of contractual incentives. They think that it is possible to work the way they think is best for the patient, instead of just following the protocol.

The proposition of the third factor, which is regulations, was that this factor is obstructive for the financial incentives. This proposition is confirmed, there are no regulations that foster the contractual incentives. The hypothesis was that the AVG could be an obstructive factor (Schermer, Hagenauw, and Falot 2018). This hypothesis is confirmed by most interviewees, because they perceive the AVG making it more difficult to share information with the different stakeholders. This makes it obstructive for them to deliver the best care, which has a negative influence on the contractual incentives.
This research also showed another law which has a negative influence on the contractual incentives, namely the law for fair competition. According to this law it is not allowed to make agreements between different parties about prices and care of patients on a large scale (Sorgdrager 1997). The law makes it hard for an insurance company and a healthcare provider to make agreements for the care of COPD/heart failure patients, so could be obstructive for the contractual incentives in the InBeeld contract.

The fourth factor is about information exchange about patients between the different stakeholders. The proposition was that information exchange could be a fostering factor for contractual incentives. Good information exchange could be fostering, but according to this research information exchange is an obstructive factor. The main reason for the obstructiveness of information exchange is that the different stakeholders have different files of a patient. Therefore, it is a lot of work to keep each other up-to date about patients and is also vulnerable for errors in the information exchange (Lee and Garvin 2003). Therefore, this proposition is rejected, information exchange is an obstructive factor for contractual incentives.

The last fifth coercive factor is organisational structures at the different stakeholders. The proposition was that the organisational structure was well defined and structured for InBeeld, so this was fostering the contractual incentives for InBeeld. This research showed that there was not much organisational change at the different stakeholders since the InBeeld contract. The role of the different professionals is the same as before the start of InBeeld. There is some change in the way the hospital clinic is organised, but this does not affect the organisational structure or organisational change. One obstructive factor in the organisational structure is the role of the nurse practitioner. The role of the nurse practitioner is a vulnerable, but also a critical role in InBeeld.

Overall, the proposition that coercive factors are obstructive for the contractual incentives in the InBeeld contract is confirmed.

Proposition 2: normative factors could foster the effectiveness of contractual incentives is confirmed

The second proposition was that normative factors foster the effectiveness of contractual incentives. The first normative factor is motivation of the different stakeholders regarding the InBeeld project. The proposition was that motivation has a positive influence on the contractual incentives. This research confirmed this proposition. Motivation is the most important factor of all factors, and motivated employees foster the contractual incentives. The reason is that motivated employees perform better, which has a positive influence on the outcome (Van Knippenberg 2000). The proposition was that medical specialist were less motivated then other employees, because they were not employed by the hospital. Due to InBeeld they will see less patients, lose autonomy and could lose a part of their income. There it could be that they are less motivated then other employees. But this isn't the case, medical specialist are highly motivated because they see the positive effect for patients. Every employed is highly motivated, which is the driver of the success of InBeeld.

The second normative factor is the influence and participation of the different stakeholders on the design of the contract. The proposition was that this factor has a positive effect on the contractual incentives. This proposition is also confirmed during this research. Everyone had participation on the design of InBeeld according to their specialism, so this has a positive influence on the contractual incentives. But the incentives aren't as effective as they could be, because the professionals who must realise the decrease in cost, aren't enough included on the design of the financial incentives. Due to this, they do not have the feeling of ownership of the contractual incentives, and do not act upon these incentives. This is obstructive for the financial incentives.

The third normative factor is about division of functions and roles regarding InBeeld. The proposition was that when tasks of different employees are strictly divided, then it could be possible that they are not interested in each other's tasks (Vermeulen et al. 2007). This could have a negative effect on the effectiveness of contractual incentives, because employees will not work together that well, which negatively influences the outcome. This proposition is rejected during this research. According to this research division of functions and roles have a positive effect on contractual incentives. Every employee knows which person is accountable

for which part of care. They complement each other and there are close ties between the different stakeholders. This fosters the contractual incentives.

So, the hypotheses that normative factors could foster the effectiveness of contractual incentives is confirmed with this research. According to this research normative factors are the most important factors for contractual incentives. Especially motivation and participation of employees is seen as success factors for achieving contractual incentives.

Proposition 3: mimetic factors are obstructive, as well as fostering the contractual incentives is rejected.

The third proposition was that mimetic factors could be both ways, obstructive and fostering for the effectiveness of contractual incentives. The first mimetic factor is about stakeholders copying other employees in their working activities. The proposition was that this could positively influence the contractual incentives. But this research mentions that this doesn't have a big influence on contractual incentives. The different stakeholders do not often work together, so they do not copy each other's working activities. During the "platform bijeenkomsten" they discuss cases and patients with each other, so they do learn for each other. But according to the interviewees this does not have a big influence on the contractual incentives, because in their working activities they follow a protocol.

The second mimetic factor is about refence frameworks of users (Vermeulen 2011). The proposition was that when users have a high standard regarding reference frameworks, this could obstruct contractual incentives. Patients could be less satisfied with the care they get, if they have high standards of reference frameworks. When patients are less satisfied it is possible that they use less often the services of both healthcare organisations and this influences the contractual incentives. This research rejected this proposition. It became clear that patients are really satisfied with InBeeld compared to other care. Patients experience overall better health and safety because of InBeeld. So, this has a positive influence on the contractual incentives.

Overall, the proposition that mimetic factors are obstructive, as well as fostering the contractual incentives could be rejected. According to this research, mimetic factors do not have much influence on contractual incentives, but when they do they have a positive influence.

7.1 Contribution to practice

The fourth and last proposition was that insurance companies could positively influence the institutional factors at the different stakeholders to enhance the effectiveness of the contractual incentives. Insurance companies could do several things to assure an even better outcome of InBeeld. On the side of financial incentives, they should remove, in comparation with the hospital, the fact that medical specialists pay the nurse practitioner for work they used to do before InBeeld. Nowadays the hospital and medical specialist pay each a part of the salary of the nurse practitioner. This is a wrong incentive for the medical specialist, because with this incentive they will not be motivated to delegate work to the nurse practitioner. They must pay for work they do not deliver anymore due to InBeeld. Insurance companies should assure, in corporation with the hospital, that this incentive will be removed in a next contract.

The second important thing insurance companies should create, is a bigger scale for InBeeld. By doing this there will be more urgency, and this will lead to a change of working activities by professionals. Since InBeeld is includes only 100 patients, professionals have the feeling that InBeeld is something they must do extra, next to their normal work/routine. This should be changed to make InBeeld financially a success.

The last thing is about the feeling of ownership by professionals. In the contract as it is today, the professionals do not have a strong feeling of ownership on the financial part of the contract. They are informed about the incentives, and most of them know the incentives, but since they did not had enough influence on the design of the incentives, they do not act upon these incentives. Insurance companies should create the feeling of ownership by professionals in a further contract, to make them more effective. They could do this in several ways. For example rewarding the individual professional when achieving certain incentives. By doing this they make it for professional interesting to reach a certain incentive, and they will act more often upon the incentives. This will give them a greater feeling of ownership and this will have an positive influence on the effectiveness of the incentives.

7.2 Contribution to literature and theory

This research contributes to theory in different ways. First it has an contribution on the aspect of telehealth. This research showed that it is hard make a widespread implementation of telemedicine, because with wider implementation the effects of the innovation diminishes (Schug 2014). This research showed that the inclusion of patients is less stricter compared to a

pilot version. Due to the fact that in a pilot version only the patients are selected who fit the treatment best, the effects of a pilot will never be repeated (Leon, Davis, and Kraemer 2011). Therefore the expectations when enrolling a pilot on a bigger scale should be less positive then the results in the pilot. This research contributed on this aspect of telehealth.

Another contribution is also on the aspect of telehealth. The problem with telehealth is time. Due to the fact that there is more and more time pressure by healthcare professionals, telehealth could be a solution for this (Inglis et al. 2010). But this research showed that professionals still do not have enough time to optimally perform telehealth. Due to the fact that they still have an waiting room full of patients, they feel no urgency to give telehealth the attention it deserves. They see telehealth as something additional, instead of seeing it as an own standard. This is the problem in telehealth, because it is promoted as the solution for the growing amount of patients and the decreasing amount of healthcare professionals, but it is still seen as something additional to the normal way of care providing, instead as an own standard of providing care (Joseph et al. 2011).

Another obstructive factor this research provided is the routine of healthcare professionals. Professionals do have a certain routine in providing care, they used to provide care the way they do for many years (Taylor et al. 2015). To make InBeeld, and more general telehealth an success, this routine has to be broken. This research showed that all professionals were motivated, and see the benefits for the patients, it is still something they have to do next to their normal working activities. This is a major problem in telehealth, and this research showed it is hard to break the routine of professionals. Due to this routine, combining with the time pressure, it is hard to establish telehealth. Because when they pressure is high, professionals will choose for treating patients in their routine, instead of providing telehealth (Betsch, Fiedler, and Brinkmann 1998).

This research also has an contribution on the literature about cost-effectiveness of telehealth. There are mixed results about the cost-effectiveness of telehealth (Wade et al. 2010). A reason for lower cost-effectiveness of telehealth is provided in this research, namely the fact that professionals have no feeling of ownership. Due to the fact that the professionals had no influence on the financial incentives, they have no feeling of ownership. For them there is no financial benefit when reaching the incentives. Therefore they do not really act upon the incentives, and the incentives are not as effective as they could be. Solutions for this could be rewarding the individual professionals when reaching the financial incentives. This

could be done in several way, for example reducing their administrative tasks or financially rewarding them.

Another contribution to the existing literature is about the healthcare sector. Much of the existing research on institutional factors and agency theory is done in the private sector (Singh 2002), (Agrawal 2002), (Shou, Zheng, and Zhu 2016b). This research focussed on two companies in the healthcare sector. Companies in the healthcare sector also need to make money, but sometimes the care of patients is more important than making money. Therefore, contract management differs between the healthcare sector and the private sector. In the healthcare sector non-financial and hard to measure factors could be more important compared to the private sector. Examples of these factors are improving patient services and enhancing employee recruitment and retention (Ballou, Heitger, and Tabor 2003). Therefore, institutional factors might not be transferable from the private sector to the healthcare sector. This research gives new and additional insights on which institutional factors are important to consider when it is about contracting in the healthcare sector. For example information exchange is in the healthcare sector an important factor, while this factor is less important in the financial sector.

7.3 Further research

There has been done little to no research on the influence of different institutional factors on the effectiveness of contractual incentives. Therefore further research on this topic is needed to validate the results of this study (Singh 2002), (Balakrishnan et al. 2010). This study is performed on two healthcare organisations and their stakeholders. It could be possible that the results in this study will differ in other sectors. Therefore further research on this topic is needed to investigate whether these factors have the same influence in other industries.

This study also mentioned some new factors which influences contractual incentives, like the scale of the project and the availability of time. Further research is needed to validate these factors, and investigate whether these factors also have an influence in other contracts in different sectors (Shou, Zheng, and Zhu 2016b). For example, it could be good to see if the lack of ownership is really a reason that professionals do not act upon financial incentives. It could be interesting to investigate whether it helps to reward individual professionals when reaching the incentives or not (Wade et al. 2010). This could be different kind of rewards, for example a financial reward, but also giving them less administrative tasks or a party for the department when reaching the incentives. This research tried to create a comprehensive view

by interviewing different stakeholders on different levels of the organisations, but nevertheless further research is needed to validate these results. Due to the fact that this research includes only 13 respondents, the scale is to small to create a theory out of it. Therefore further research is needed.

7.4 Limitations

There are some limitations which could not be prevented. At first the validation of the results according to different sector could be an limitation. The influence of the different factors could be different for other sectors compared to the healthcare sector (Agrawal 2002). For example information exchange is an important coercive factor in healthcare, because it is about exchanging information about patients. This factor is also important in other sectors, but for different reasons. In the healthcare sector it is about patients and their well-being, while it is in for example the financial sector about financial reasons (Shou, Zheng, and Zhu 2016a). Therefore it could be possible that the results of this research are only applicable to contracts in the healthcare sector. Further research is needed to validate this.

Next to this, this research tried to include all important stakeholders in the InBeeld contract. In order to create an comprehensive view of the influence of different institutional factors on contractual incentives, different stakeholders (management, financial, healthcare professionals) were interviewed. Although 13 persons cooperated in this research, some stakeholders weren't available during this research. For example a nurse practitioner wasn't available. This research created an comprehensive view on the topic, but it could be possible that a nurse practitioner could have a different opinion about some factors and their influence on contractual incentives. But this tried to diminish this limitation by interviewing different stakeholders on different level of the organisations. There are three healthcare professionals interviewed, so the opinion of healthcare professionals is part of this research, although the opinion of nurse practitioner could give some additional insights.

7.5 Recommendations

The results of this study could provide some important recommendations, to assure the future of the InBeeld project. The most important recommendation is to create more feeling of ownership of the contract by healthcare professionals. In the design of the InBeeld contract, the healthcare professionals had to little influence and participation on the financial aspect of the contract. Their opinion and participation were mostly on the aspect of proving the care

and in which way this should be done, and less in the financial incentives. Since the healthcare professionals had too little influence on this, they do not have the feeling of ownership of the financial incentives. By not having the feeling of ownership, they do not act upon the financial incentives, and therefore the effectiveness of the financial incentives is lower than it could be. InBeeld is already a success on the aspect of proving care for patients, but if insurance companies would make this financially a success, they must create more feeling of ownership on the financial aspect by the healthcare professionals. The healthcare professionals must make it a success by acting upon the incentives, and nowadays they have the feeling that InBeeld is a management contract.

The second recommendation is to extend the scope of InBeeld. InBeeld is primarily used to prevent hospital admissions by COPD and heart failure patients, while InBeeld could also be used to shorten the duration of hospital admissions for patients who are already in the hospital. The focus should stay preventing hospital admission, but when this isn't possible, InBeeld could also be used as a tool to shorten the duration of an hospital admission. By using the infrastructure of the InBeeld project, the patient could be sent home earlier with the support of InBeeld. If the patient only needs a few check-ups a day by a nurse, the patient could be sent home with providing the telemonitoring of InBeeld. By doing this it is possible to reduce the duration of hospital admission, for example, from five days to three days. Because healthcare professionals mention that these last two days at the hospital aren't necessary in a lot of cases. The last two days, the patient could be monitored at home with InBeeld. This isn't possible nowadays and could prevent a lot of unnecessary days at the hospital. This solution will save a lot of cost, because monitoring the patient at home with InBeeld is less expensive than a patient who is in the hospital. This could be a relatively easy solution for enhancing the scope of InBeeld, because all the infrastructure necessary for this is already available with InBeeld care.

The third recommendation is to create a bigger scale for InBeeld. If insurance companies could create a bigger scale for InBeeld, there would be more urgency and professionals will step out of their routine. This is needed to make InBeeld an success, because nowadays InBeeld is more something next to other care for COPD and heart failure patients, instead of the standard for these patients. Creating a bigger scale could be done in several ways. It could be done by treating more patients with InBeeld. Nowadays there are approximately 100 patients who receive InBeeld care, which isn't enough to create a feeling of urgency by professionals to change their working process. When there are more COPD and

heart failure patients included in InBeeld, professionals will change their routine and working activities, because there is more urgency. Another solution for creating a bigger scale for InBeeld is to provide InBeeld for other chronical diseases. Several interviewees mention that according to them, InBeeld could be used for almost every chronical disease. When InBeeld could be used by, for example, diabetes and asthma, then the population will grow, and this will have the same effect as mentioned before. When the scale of InBeeld is bigger, this could also create the option of clustering all the InBeeld care into one department. This so called "InBeeld centrum" could be an optimal solution for the problems of professionals who are holding on to their routine and working pressure of treating patients. With an "InBeeld centrum" professionals will only treat InBeeld patients, and do not have their other routines or something else. This will have a lot of benefits, for example more efficiency and specialised healthcare professionals for the best care. An "InBeeld centrum" is more something for the future, but it is important to create a bigger scale for InBeeld, because this will diminish a lot of obstructive factors for InBeeld.

The fourth and last recommendation is about the role of insurance companies regarding InBeeld. As it is today, the different stakeholders have the feeling that insurance companies falls back in their role of insurance company controlling other organisations. InBeeld is promoted as a co-creation of insurance companies with the other organisations, but the different stakeholders have the feeling that insurance companies sometimes doesn't participate enough. One aspect mentioned is that insurance companies could benchmark more. By sharing figures and data on how the different stakeholders perform, it could be possible to create an image of how they perform compared to others. The results of InBeeld are not as high as expected, on the side of hospital admissions and cost reduction, but the different stakeholders do not know how they perform compared to others. Maybe they perform less than expected, but better than others. When insurance companies shares this information with everyone, they show that they are transparent and willing to find the solution why InBeeld is less successful than expected. This will give the different stakeholders the feeling that it is more a co-creation and will have a positive influence on InBeeld. The way it is now, it is a bit of a missed changed for insurance companies to change the paradigm of an insurance company controlling healthcare organisations. Insurance companies could create this feeling of co-creation by sharing data with the stakeholders, but also by facilitating further innovations regarding InBeeld. A big obstructive factor is the information exchange. This could be resolved when the different stakeholders would have one dossier around the care for

a patient. There are several pilots for this, for example PGO. Every stakeholder is positive about this pilot, so insurance companies could financially support these pilots as well, to diminish the obstructive factor on the information exchange.

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Appendices

A1: Measuring the effectiveness of the "InBeeld" contract

Aimed effects	**Parameters/indicators**	**Measuring instrument**
1. Increase health of patients	a. Exacerbations	- # of exacerbations in HIX (electronic patient dossier)
	b. Degree of self-management	- PAM (patient activation measure)
2. Lower the burden of disease	Degree of perceived health	- CCQ questionnaire (COPD) - Questionnaire in "InBeeld" app (heart failure) - MRC-score (COPD)
3. Reduce of healthcare consumption	Hospitalizations and readmissions to hospital	# of hospitalizations and readmissions to hospital (in HIX)
4. Increase efficiency of care	a. Degree of efficiency healthcare providers	- # of patient check-ups - Time allocation MSC
	b. Average healthcare costs per patient	- Costs of the care chain
5. Increase patient satisfaction about care	Degree of patient satisfaction	- Patient satisfaction measurement (feedback radar)

A2: Interview Scheme

Korte vragen over het InBeeld contract en de bijbehorende incentives:

- Merkt u verschil in de manier van werken nu, vergeleken met 4 jaar geleden? Zo ja, wat is dit verschil? Wordt u bijvoorbeeld anders aangestuurd, of is de focus qua zorgverlening verandert?
- Wat voor informatie heeft u gekregen vanuit uw organisatie over het InBeeld contract? En hoe is deze informatie verder gedeeld binnen uw organisatie? En wat is volgens u het uiteindelijke doel van het contract?
- Is het InBeeld contract tussen uw organisatie en de zorgverzekeraar, of zijn er nog meer organisaties betrokken? Welke andere organisaties?
- De zorgverzekeraar heeft bepaalde incentives in het contract ingebouwd, wat zijn de verschillende incentives? Verschillen deze incentives met de incentives in het vorige contract van 4 jaar geleden?
- Op welke manier denkt u dat deze incentives bijdragen aan het bereiken van het uiteindelijke doel van het contract? Heeft u het gevoel dat de incentives in het contract op de juiste manier opgesteld zijn, of zijn er ook incentives die elkaar tegen werken? Wat zou u graag anders zien aangaande de incentives?

Vragen over de institutionele factoren:

- Als u naar uw organisatie kijkt, welke factoren binnen uw organisatie zorgen er het meest voor dat de incentives in het contract wel of niet gehaald kunnen worden en waarom? Op welke incentive heeft dit de meeste invloed?

Na het beantwoorden van deze vraag kan er nog kort ingegaan worden op de verschillende institutionele factoren die gevonden zijn in de literatuur, en wat hiervan de invloed is op de verschillende incentives in het contract.

- Coercive factors:
    - In jullie werk tijdens het InBeeld project moeten jullie bepaald procedures en protocollen volgen, heeft u het gevoel dat deze protocollen een invloed hebben op het bereiken van de incentives? Op wat voor manier (bevorderend/belemmerend)?
    - Is er wet- en regelgeving die het bereiken van de incentives belemmeren/bevorderen? Zo ja, welke zijn dit dan en op wat voor manier?

- Op welke manier gaat de informatie-uitwisseling tussen uw organisatie en de andere organisaties in het InBeeld project aangaande patiënten? Op wat voor manier beïnvloedt dit het bereiken van de incentives?
- Heeft er binnen uw organisatie een verandering plaatsgevonden in de structuur van de organisatie, om op deze manier het behalen van de incentives te bevorderen? Wat voor verandering en wat was de invloed hiervan volgens u?

- Normative factors:
  - Is er binnen uw organisatie een strikte verdeling van functies en taken? Wat is hiervan de invloed op het bereiken van de incentives (positief/negatief)?
  - Heeft u als werknemer binnen uw organisatie invloed gehad op het ontwerp en implementatie van het InBeeld project (b.v. op de incentives)? Heeft vroege participatie van werknemers binnen het InBeeld project een positieve of negatieve invloed op het bereiken van de incentives, en waarom?
  - Wat is volgens u de invloed van motivatie op het bereiken van de incentives in het contract (bevorderend/belemmerend)? Worden werknemers voldoende gefaciliteerd binnen uw organisatie door b.v. management en RVB in de uitvoer van het InBeeld project?

- Mimetic factors:
  - Nemen collega's volgens u wel eens werkmethodes van andere collega's, of van concurrenten, over in hun eigen werk? Wat is volgens u hiervan de invloed op het bereiken van de incentives (positief/negatief)?
  - Denkt u dat referentiekaders van patiënten een invloed heeft op het bereiken van de incentives in het InBeeld contract, en zo ja wat voor invloed (belemmerend/bevorderen)? Met referentiekader bedoel ik dat patiënten bijvoorbeeld jullie zorg vergelijken met andere zorg die ze krijgen.

Wilt u zelf nog iets kwijt over het InBeeld project wat u denkt dat van belang kan zijn voor mijn onderzoek? Of heeft u nog verbeterpunten die u graag zou willen aandragen voor het InBeeld project?

Aan het eind van het interview wordt gevraagd of de geïnterviewde onderstaande tabel in wil vullen, om op deze manier een classificatie te kunnen maken van de mate van belang van de verschillende factoren.

Factoren die belemmerend, dan wel bevorderend kunnen zijn voor het behalen van de incentives:	**0 (Geen invloed)**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Verschillende incentives die elkaar belemmeren of bevorderen											
Procedures en protocollen											
Wet- en regelgeving											
Informatie-uitwisseling tussen de verschillende organisaties											
Organisatorische verandering binnen uw organisatie ten behoeve van het nieuwe contract											
Strikte verdeling van functies en taken binnen uw organisatie											
De invloed van uzelf, als werknemer, op het ontwerp van het contract											
Motivatie van werknemers											
Uw organisatie die methodes en procedures kopieert/overneemt van andere organisaties											
De invloed van een referentiekader voor patiënten ten opzichte van de werkzaamheden van uw organisatie											

A3: Informed Consent

INFORMED CONSENT FORMULIER

Doel van het onderzoek
U bent van harte uitgenodigd om deel te nemen aan dit onderzoek. Het doel van dit onderzoek is te onderzoeken welke factoren binnen de verschillende stakeholders wel/niet helpen om de financiële incentives/prikkels die in het contract ingebouwd zijn, effectief te laten zijn.

Gang van zaken tijdens het onderzoek
U neemt deel aan een interview waarin aan u vragen zullen worden gesteld over de invloed van deze factoren. Een voorbeeld van een typische vraag die u zal worden gesteld: "Is de invloed van wet- en regelgeving belemmerend dan wel bevorderend voor de incentives in het contract?".

Tijdens het interview zal, aan de hand van een topic list, dieper worden ingegaan op de verschillende factoren binnen uw organisatie. Van het interview zal een audio-opname worden gemaakt, zodat het gesprek later ad-verbum (woord voor woord) kan worden uitgewerkt.
Dit transcript wordt vervolgens gebruikt in het verdere onderzoek.

Potentiële risico's en ongemakken
- Er zijn geen fysieke, juridische of economische risico's verbonden aan uw deelname aan deze studie. U hoeft geen vragen te beantwoorden die u niet wilt beantwoorden. Uw deelname is vrijwillig en u kunt uw deelname op elk gewenst moment stoppen.

Vergoeding
U ontvangt voor deelname aan dit onderzoek geen vergoeding.

Vertrouwelijkheid van gegevens
Uw privacy is en blijft maximaal beschermd. Er wordt op geen enkele wijze vertrouwelijke informatie of persoonsgegevens van of over u naar buiten gebracht, waardoor iemand u zal kunnen herkennen.

Voordat onze onderzoeksgegevens naar buiten gebracht worden, worden uw gegevens **anoniem** gemaakt: geanonimiseerd. Enkele eenvoudige voorbeelden hiervan:
- uw naam wordt vervangen door anonieme, op zichzelf betekenisloze combinatie van getallen.
-uw functietitel wordt niet expliciet gebruikt in dit onderzoek, hierdoor zijn antwoorden niet direct terug te leiden naar u.

Bij de start van ons onderzoek krijgt uw naam direct een **pseudoniem**; uw naar wordt gepseudonimiseerd ofwel 'versleuteld'. Op deze manier kan wel worden onderzocht wat u in het gesprek aangeeft, maar weten de getrainde onderzoekers niet dat u het bent. De onderzoeksleider is zelf verantwoordelijk voor dit pseudoniem en de sleutel en zal uw gegevens niet delen met anderen.

In een publicatie of presentatie zullen of anonieme gegevens of pseudoniemen worden gebruikt. De audio-opnamen, formulieren en andere documenten die in het kader van deze studie worden gemaakt of verzameld, worden opgeslagen op de beveiligde computer van de onderzoeker.

Vrijwilligheid
Deelname aan dit onderzoek is geheel vrijwillig. Je kunt als deelnemer jouw medewerking aan het onderzoek te allen tijde stoppen, of weigeren dat jouw gegevens voor het onderzoek mogen worden gebruikt, zonder opgaaf van redenen.

Dit betekent dat als je voorafgaand aan het onderzoek besluit om af te zien van deelname aan dit onderzoek, dat dit op geen enkele wijze gevolgen voor jou zal hebben. In deze gevallen zullen jouw gegevens uit onze bestanden worden verwijderd en vernietigd.

Toestemmings-verklaring
Met uw ondertekening van dit document geeft aan dat u goed bent geïnformeerd over het onderzoek, de manier waarop de onderzoeksgegevens worden verzameld, gebruikt en behandeld en welke eventuele risico's u zou kunnen lopen door te participeren in dit onderzoek

Indien u vragen had, geeft u bij ondertekening aan dat u deze vragen heeft kunnen stellen en dat deze vragen helder en duidelijk zijn beantwoord. U geeft aan dat u vrijwillig akkoord gaat met uw deelname aan dit onderzoek. U ontvangt een kopie van dit ondertekende toestemmingsformulier.

_____	_____	_____
Naam deelnemer	Handtekening	Datum

_____	_____	_____
Naam Onderzoeker	Handtekening	Datum