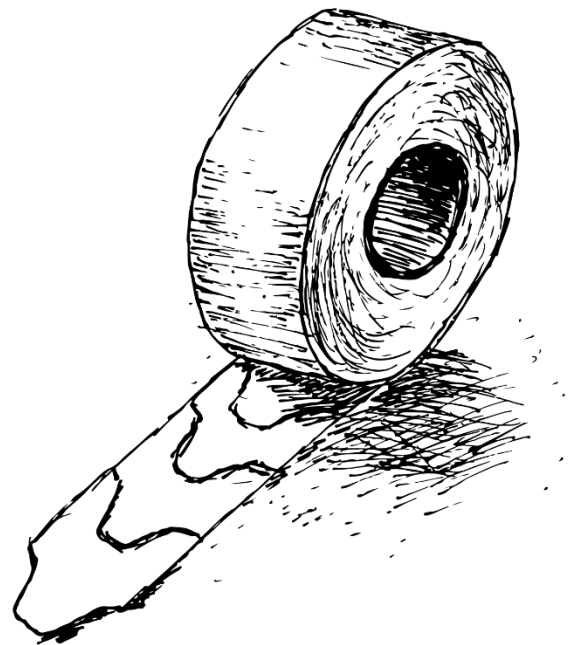


If you need care, please get in line

In this research, the measures of ZZG zorggroep regarding the occurring waiting lists are evaluated: to what extent these measures are attenuating or amplifying, and if these measures influence the complexity of the organisational structure.



Radboud University Nijmegen

Master Business Administration

Organisational Design and Development

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Master thesis

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Preface

In front of you is my master thesis, written for the Business Administration master specialisation Organisational Design and Development. With this thesis, I tried to provide ZZG zorggroep with objective insight into the waiting list problem it experiences and how it tries to deal with these problems.

Almost two years ago, on December 13th, 2016, I wrote my first (of many) emails to my supervisor Jan Achterbergh. Two concussions, a broken collar bone and about nine monthly coffee meetups later, Jan got an email from Hans Vos in March 2018. I want to thank Hans Vos for sending this email, by which he provided me with a fascinating subject for my thesis. I am thankful for all the time Hans Vos and his colleagues of ZZG zorggroep dedicated to me.

My friends and family – I want to thank all of you for your support, ranging from coffee breaks to providing critical feedback. In particular, I would like to thank Juliette and Maurice for reviewing parts of my work.

And last but not least, I am really grateful for all Jan Achterbergh has done for me. It was a long project and not easy at times, but due to your understanding, kindness, quick responses, even check-ins if I had been quiet for a while, it resulted in this paperwork. I really enjoyed our numerous thesis meetings – not only for the helpful feedback but also because of the small talk and the occasional visits to funda.nl.

I hope you enjoy reading my thesis.

Lieke Wijnbergen, 15 November 2019



Abstract

In the Netherlands, it is no exception anymore that clients have to wait for the care they need. The (prospective) clients of the healthcare institution ZZG zorggroep are familiar with this phenomenon – many older people are on a waiting list for a place in a protected or sheltered residence. Those waiting lists undermine the goal of ZZG zorggroep: offering the right care for the right patient at the right time. ZZG zorggroep designed a handful of measures to deal with the waiting lists. This study evaluates this intervention by 1) determining if these measures are attenuating or amplifying and 2) the influence of these measures on the complexity of the organisational structure. This objective leads to the following two research questions:

Central research question 1: Are the measures, relative to the occurring problems, attenuating or amplifying?

Central research question 2: What influence do the measures have on the complexity of the organisational structure of ZZG zorggroep?

In this context, attenuation refers to the extent to which the measure removes the disturbance and amplification refers to the extent to which the measure creates ways to deal with the disturbance.

Based on literature analysis of the diagnosis and design phases of interventions and a review of the literature on the complexity of organisational structures, documents of ZZG zorggroep were analysed, and interviews with employees of ZZG zorggroep were conducted. The analysis of the collected data shows that most measures enhance the regulation capacity of ZZG zorggroep to deal with the waiting lists. Furthermore, the measures were not unnecessarily complicating the organisational structure. Based on these findings, it is recommended that more attention should be paid to attenuation of the causes of the waiting list problem. This could be done by further research on the influence of the relation between the informal caregiver and the patient on the waiting lists.

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1.1 Background

ZZG zorggroep is a healthcare organisation in the Netherlands that focuses on healthcare for older people. It provides district nursing, geriatric revalidation and recovery care and protected and sheltered housing. The latter is for clients with long-term or chronic care needs, or both, who cannot live on their own anymore. For example, when they have dementia, or severe physical decline, or both. Protected and sheltered housing refers to living in a home with some optional extra services nearby, like meal-delivery, an alarm system or the presence of a residential caretaker 24 hours a day (Baker & Prince, 1991; ZZG zorggroep, n.d.-b).

Similar to many other healthcare organisations (Nationale Zorggids, 2017), ZZG zorggroep experiences growing waiting lists for the facilities it offers. Especially the waiting lists for its protected and sheltered housing are growing fast. These growing waiting lists have a negative influence on ZZG zorggroep's aim to help its clients as fast and as well as possible. Therefore, ZZG zorggroep has come up with some actions to cope with the occurring waiting lists.

These actions are aimed at dealing with the effects of or to solve the different causes of the waiting list problem. In a preliminary interview with one of the directors of ZZG zorggroep, three causes were pointed out:

1. Relocation of crisis care clients
2. Disagreement among healthcare organisations in the region on accepting crisis clients
3. Lack of transparency of the available living options of ZZG zorggroep for the customer

The first cause has to do with the relocation of crisis care clients, who are usually abetted by hospitals. The hospitals do not have the capacity to place these clients, which means that the patients have to be transferred to other healthcare institutions like ZZG zorggroep. These crisis care clients have priority over patients who are already on the list for sheltered housing and are thus directly affecting the waiting lists.

The second problem is that there is no overall agreement or system on how crisis care clients should be assigned to an organisation. Each organisation has its own policy, which can result in the crisis care clients becoming unevenly divided over the healthcare organisations involved and higher pressure on ZZG zorggroep's capacities.

The third problem is that the available options for healthcare offered by ZZG zorggroep are not transparent to the customer. Clients subscribe for sheltered housing while there are other solutions like district nursing, which may be more suitable to their situation. As a result, the waiting lists grow unnecessarily because there are people on the lists who do not really need to be there.

ZZG zorggroep tried solving the waiting lists issue by managing logistic processes at a decentralised level. This decentralised solution was unfortunately found insufficiently effective since the logistical processing demands too much time from the local case manager. All his or her time is consumed by the waiting lists issue instead of focussing on the clients already assigned to said location, which is the original task of the case manager. To unburden the case manager, the management of ZZG zorggroep assembled new plans in which they try to tackle the waiting lists at central level in the organisation. ZZG zorggroep is unsure if their waiting list measures (from now on: measures) affect the waiting lists in a positive way and are not unnecessarily complicating the structure of the organisation. Therefore, it wants to gain insight into the attenuating and amplifying quality of the measures, and of the measures' impact on the organisational structure.

1.2 Objective and research questions

1.2.1 The objective of the research

The objective of this research is delivering a contribution to the solution of the waiting lists problems that ZZG zorggroep experiences. This will be done by evaluating if 1) the measures are attenuating or amplifying and 2) if the measures impact the complexity of the organisational structure of ZZG zorggroep.

This research is intervention-oriented with an evaluative character. The measures designed by ZZG zorggroep in order to deal with the waiting lists issue will be evaluated in this research on two aspects: their amplifying and attenuating character and if they affect the complexity of the organisational structure.



1.2.2 Central research questions

Two central research questions are formulated which are directly related to the insights which will be created in this research.

Central research question 1: Are the measures, relative to the occurring problems, attenuating or amplifying?

Central research question 2: What influence do the measures have on the complexity of the organisational structure of ZZG zorggroep?

The following sub-questions are formulated in order to provide an answer to the first central research question:

Theoretical	<i>Sub-question 1.1 What are attenuating and amplifying measures?</i>
Empirical	<i>Sub-question 1.2 What are the problems that ZZG zorggroep experiences?</i> <i>Sub-question 1.3 What are the causes of these problems, as found by ZZG zorggroep?</i> <i>Sub-question 1.4 What are the measures that ZZG zorggroep formulated to deal with the problems?</i>
Analytical	<i>Sub-question 1.5 Are the measures attenuating or amplifying?</i>

Table 1 Sub-questions for central research question 1

By answering the following sub-questions, an answer to the second central research question can be given. Note that the first central research question provides input for the second central research question (see sub-question 2.3).

Theoretical	<i>Sub-question 2.1 What is an organisational structure?</i> <i>Sub-question 2.2 What makes an organisational structure complex?</i>
Empirical	<i>Sub-question 2.3 What measures did ZZG zorggroep take to deal with the waiting list problems?</i> <i>Sub-question 2.4 How are the new activities added to the existing organisational structure of ZZG?</i>
Analytical	<i>Sub-question 2.5 Did the measures influence the complexity of the organisational structure of ZZG zorggroep?</i>

Table 2 Sub-questions for central research question 2



1.3 Relevance of the study

1.3.1 Scientific relevance

This research is intervention-oriented, and therefore, scientific relevance is limited. The study only provides new empirical evidence that the theories of de Sitter and Ashby on socio-technical organisation design are useful to study interventions in practice.

Through the given description of the waiting lists case, this research contributes to the existing literature on this particular topic. Waiting lists generate dissatisfaction as an increased probability of health issues for the clients on the waiting lists (Derrett, Paul, & Morris, 1999; Fogarty & Cronin, 2008; Palvannan & Teow, 2012). Waiting lists in the geriatric care sector are not researched often, so the possibilities to solve these waiting lists are not studied either. There are not any Dutch studies on the subject of waiting lists for geriatric care, while waiting lists in this healthcare sector, in general, are a big problem (Nationale Zorggids, 2017). This study, therefore, can help by providing insight from a socio-technical perspective in coping with waiting lists in the geriatric care sector.

1.3.2 Practical relevance

“The route to nursing homes is clogged” a newspaper headed last year (Weeda, 2019). Many newspapers described the situation of the enormous numbers of older people waiting for a place in a care home. While these people are waiting, their health situation often declines, which increases their urgency for receiving the right, needed care – which often can only be provided in those nursing homes. The social relevance of this research is evident because this research helps ZZG zorggroep in its intervention to deal with its waiting lists. By evaluating their diagnosis and design, this study helps in giving insight into the problem, the effects and the ways to deal with the problem. It shows which measures are attenuating any causes and which measures are amplifying the ways to deal with the waiting lists.

Next to that, ZZG zorggroep gains insight on the ways they want to deal with their waiting list problem from a socio-technical perspective. The feedback on their way of dealing with problems also contributes to ZZG zorggroep’s goal of being a learning organisation (ZZG zorggroep, 2017).

Besides this direct relevance for ZZG zorggroep, this study and its conclusions can be relevant for a similar healthcare organisation that also deal with waiting list cases. Managers who experience similar problems can obtain insights from the lessons ZZG zorggroep learned and use this research as a reflective tool when designing their own solutions.



1.4 Outline of the thesis

The purpose of this research is to deliver a contribution to solving the waiting lists issue for protected and sheltered housing at ZZG zorggroep. This will be obtained by gaining insight in the systemic quality of the measures taken by ZZG zorggroep to solve the waiting lists problem and on the influence of the measures on the complexity of the organisational structure of ZZG zorggroep.

First, it has to be established if these measures are attenuating or amplifying in order to evaluate the impact of the measures on the complexity of the organisational structure. Therefore, this thesis is divided into two parts.

Part I evaluates the amplifying or attenuating quality of the measures and covers four chapters to do this. Chapter 2 explains what is understood by the following concepts: problems, solutions, amplifying and attenuating. Chapter 3 defines the methodological base for this research. Chapter 4 shows the results, which are the problems found by ZZG zorggroep, their effects, the causes of these problems, the measures and the analysis of the amplifying or attenuating characteristics of those measures. Chapter 5 gives a preliminary conclusion and an answer to the first central research question.

In part II, the influence of the measures on the organisational structure of ZZG zorggroep is subject of evaluation. The theoretical framework for this part of the research is presented in chapter 6, in which an organisational structure and the complexity of such a structure is explained. The methodological considerations are discussed in chapter 7, and the results and their analysis are shown in chapter 8.

In chapter 9, a summary of the conclusion of the first part of the study is given. Next, the conclusion of the second part of the thesis is presented. To conclude, the managerial and scientific implications and limitations of the complete study are discussed.



Part I

In this part, an answer will be given to the first central research question:

Are the measures, relative to the occurring problems, attenuating or amplifying?

Chapter 2 provides the theoretical framework behind this question by explaining what the main concepts are. Chapter 3 gives the methodological considerations for the done research. Chapter 4 presents the results and the analysis of these results. Chapter 5 gives a conclusion of this research part by answering the first central research question.

The goal of this chapter is to provide the theoretical background to the first central research question:

Are the measures, relative to the occurring problems, attenuating or amplifying?

Context to this question is added in section 2.1, by explaining interventions using the 3-D model of Achterbergh & Vriens (2019). The functional dimension (section 2.2) is one arm of this model, which consists of four activities. The first two activities, diagnosis and design, are the most important for this part of the thesis. The diagnosis activity helps us to find out what the problems and their possible causes are; this will be explained further in section 2.2.1. In the design activity, the solutions to the problems are being created. This is discussed in section 2.2.2, with particular attention to the object of the design and the design activities. With all these concepts, the theoretical framework is comprised (section 2.3).

2.1 Interventions

By compiling a set of measures to deal with its problems, ZZG zorggroep started an intervention, according to the definition of Achterbergh et al. (2009, p. 18). These authors state that the goal of any intervention is to solve an organisational problem. This definition of interventions is further explained in this section. The 3-D model, as developed by Achterbergh & Vriens (2019), is used to explain how organisations can deal with interventions.

2.1.1 Definition

Midgley (2006) describes an intervention as “*a purposeful action by an agent to create change*”. Achterbergh & Vriens (2019) provide a comparable definition: “*a set of coherent activities that involve deliberation and intend to improve the functioning of something relative to some goal*”. These definitions presuppose some elements, namely ‘deliberation and intention’, a ‘goal of the intervention’, ‘a goal *in* the intervention’ and an ‘object of the intervention’.

Deliberation in the definition of Achterbergh & Vriens (2019) is similar to the purposeful action by an agent of Midgley (2000): both descriptions imply that the actions are selected after a thoughtful process and practical weighing of the available and realistic options. *Intentional* means that the activities are done on purpose in order to improve the performance of something (Achterbergh & Vriens, 2019).

The *goal of the intervention* is the reason why the intervention (as a whole) is performed in the first place. This goal is not given at the start of the intervention but usually defined in the first stage of the intervention and reformulated as the intervention continues.

The *goal in the intervention* is twofold in the way of a functional and a social goal. The *functional goal in the intervention* is to optimise the quality of the design and its implementation as much as possible. The *social goal in the intervention* entails the intervention to be accepted and integrated into organisational behaviour. To realise the goals of and in the intervention, something in the organisation needs to be changed.

What needs to be changed in the organisation is called the *object of the intervention*. This object is usually the infrastructure because many problems have their origin in the infrastructure of the organisation. Examples such as a bureaucratic culture, inefficient processes or outdated ICT can be the cause of organisational problems. By changing or improving the infrastructure, problems in an organisation can be solved (Achterbergh et al., 2009).

Infrastructures consist of three elements, namely structure, HR and technology. This will be further explained in section 2.2.2.1. The other possible object of the intervention can be the culture of an organisation, which has a reciprocal relationship with its infrastructure. When the culture needs to be changed, the infrastructure will usually (inevitably) be adjusted, and by changing the infrastructure, the culture can also be affected (Achterbergh et al., 2009).

In conclusion, an intervention is a deliberate process of coherent actions with the intention to change something in the organisation. One can do this by changing or improving something, or both, in the infrastructure in such a way that the quality of the design and the implementation is optimised and the intervention is accepted and integrated with the organisational behaviour. **Fout! Verwijzingsbron niet gevonden.**

2.1.2 3-D model

In order to explain interventions in organisations, many different models and techniques have been developed over the years. For example the CMO-model of Pawson & Tilley (1998), the Viable System Model of Beer and Nohria (2000), and the theories about leadership of both Bennis (1959) and Conger & Kanungo (1987). The majority of these models can be explained with and placed in the 3-D model of Achterbergh & Vriens (2019), which describes interventions in organisations. This model is shown in Figure 1 (Achterbergh & Vriens, 2019). The model consists of 3 dimensions, each with their own goal and related actions (Achterbergh et al., 2009).

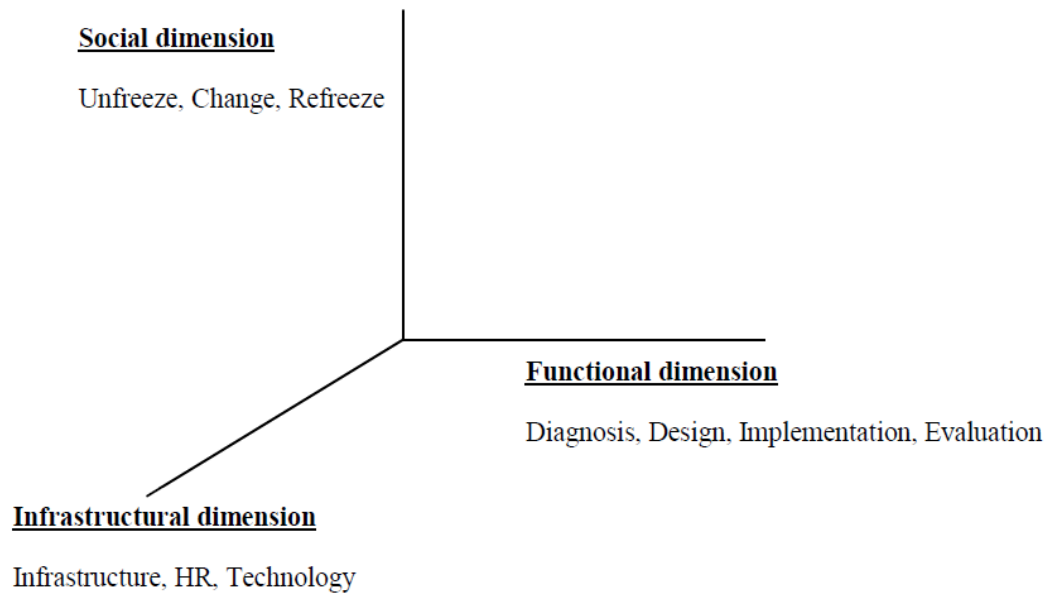


Figure 1 The 3-D model of (episodic) interventions. Copyright by (Achterbergh & Vriens, 2019)

The **functional dimension** entails four activities, which are (1) ‘diagnosis’, (2) ‘design’, (3) ‘implementation’, and (4) ‘evaluation’ (Achterbergh et al., 2009). These activities are needed to (1) identify the problems, (2) design the solutions for them, (3) implement those solutions, and (4) to check how they worked out. These activities are necessary and indispensable in every intervention, but solely carrying out these activities is insufficient for a successful intervention. In order to implement change in the infrastructure, the intervention needs to be accepted and integrated into the organisational structure. These acceptance and integration are done in the social dimension of interventions. Activities like diagnosis and design have to be carried out, but social acceptance is needed to lift the intervention from a plan to an actual change (Achterbergh & Vriens, 2019).

The goal of the second dimension of the 3-D model, the **social dimension**, is acceptance and integration of the intervention. This goal can be realised by the theory of Schein (1988) who distinguished three phases in organisational change. Schein (1988) says that in order to create acceptance and integration of the intervention, the people in the organisation have to be prepared for the change (unfreeze). Next, changes in behaviour are identified, for instance, by looking at new ways to define the problem and make use of role models (change). In his refreeze-stage, the change in the routines of the organisation is integrated.

(Achterbergh & Vriens, 2019) choose to speak of *goals* instead of *phases* because the term ‘phases’ implicitly assumes that each phase can always be reached. Not every intervention is successful and will reach all three stages; sometimes, not even one stage is accomplished.

Besides this small but fundamental difference, (Achterbergh & Vriens, 2019) agree with the contents of Schein's theory and compare the three phases 'unfreeze', 'change' 'refreeze' with their goals 'motivation', 'adoption' and 'integration'. In order to integrate (refreeze) new behaviour as new routines, people should be motivated to let their current routines go (unfreeze) and want to adopt the new behaviour as their own (change).

The **infrastructural dimension** has all the means to define and realise the functional and social goals in the intervention (Achterbergh et al., 2009). It also shows how the intervention can be structured, because, for every intervention, it is essential to know which people (HR), which means (technology) and which division of labour (structure) have to be worked with. The allocation and grouping of operational and regulatory intervention activities, like 'creating change relationships', 'performing a diagnosis' and the dealing with troubles during an intervention are all elements of the intervention structure. Also, in the infrastructural dimension is chosen for a top-down or bottom-up approach (Bennis, 1959; Conger, 1994), a more planned or a more emergent change (Ghoshal & Bartlett, 1996; Weick, 1993), etcetera. All in all, the infrastructural dimension is about creating the infrastructure of the intervention itself (Achterbergh & Vriens, 2019).

In this part of the thesis, only the functional dimension is used to examine the measures of ZZG zorggroep. If these measures are accepted and integrated (social dimension), or how the actual intervention is planned (infrastructural dimension) is not subject of this research. How the functional dimension, and in particular the diagnosis and design activities, will contribute to the research of the waiting list measures and their technical quality is explained in the following sections.

2.2 Functional dimension

The functional dimension is one of the three dimensions of the 3-D model by Achterbergh & Vriens (2019). Defining problems in the infrastructure, thinking of solutions for these problems, and implementing and evaluating those solutions are the activities provided by the functional dimension (Achterbergh et al., 2009). These four activities (diagnosis, design, implementation and evaluation) have their own goals, which need to be achieved to make the intervention a success.

Delivering a contribution to solving the organisational problems is only possible when there is a correct diagnosis of the nature and extent of the causes (Achterbergh et al., 2009). The goal of the diagnosis activity is thus to provide an insight into the problems, their possible causes and the solution space. In the design activity, the aim is to invent a suitable solution for

the problems in the structures functioning. This solution should be able to process the overall organisational goal while minimising undesired side-effects. The final design is then implemented. The goal of this implementation activity is to change the structure towards the newly designed structure. The last activity, evaluation, has two goals: providing a product evaluation (is the result of the intervention as desired?) and process evaluation (how did the intervention go?). These four activities together can be seen as the goals **in** the intervention in order to realise the goal **of** the intervention (Achterbergh & Vriens, 2019).

In this part of the thesis, the diagnosis activity and the design activity are of significant importance, since these activities entail finding out the problems, the causes of the problems and the solutions to the problems of ZZG zorggroep are. These problems and causes are found in the diagnosis activity, while the solutions are thought of in the design activity. This is why the following sections will provide a more detailed description of both activities.

2.2.1 Diagnosis

This section gives a description of which activities and results are required for a proper diagnosis. As explained before, diagnosis is the first activity on the functional dimension, and therefore the beginning of a successful intervention, and it should provide a good insight in the root and the extent of the causes (Achterbergh et al., 2009). Rahim and Bonoma (1979) underline this statement: the conflicts of the system as they appear on the surface may not always be the root of the problem. Therefore, proper diagnosis to uncover those conflicts is thus necessary. According to Achterbergh et al. (2009), a diagnosis has three end products: (1) a bottleneck analysis, (2) a cause analysis and (3) a solution space.

Ad 1. The starting point of the diagnosis is that there is something wrong. The bottleneck analysis gives a description of the (possible) problems, their norm values, their actual values and the difference between those values. A problem occurs when the diagnostic variables cross their norm values. The norm value is wanted or, so to say the ideal value of the variable. The actual value is the current value of the variable, and the difference between those values, the error value, gives an indication of the presence and the gravity of the problem.

With those three types of values, the bottleneck analysis can be completed. Using an example of Achterbergh et al. (2009), a problematic situation can be ‘too much absenteeism among the employees’. The possible diagnostic variables indicating this problem can be the number of days employees are sick, or the amount of ‘sick hours’ in contrast to ‘work hours’. Of those variables, the desirable (norm) value and the actual value can be found. Another example is a cyclist who had a bike crash and has several injuries. The norm value is no injuries

at all; the actual value is that he/she has seven abrasions. The error value is, therefore, seven more injuries than the ideal value prescribes, and thus, there is a problematic situation.

The problem of ZZG zorggroep needs to be investigated together with its norm, the actual and the error value, in order to answer the first central research question. Note that the error value is gradient: the lower the value, the lower the gravity of the problem is and vice versa: when the error value increases, the severity of the problem also increases.

Ad 2. In the cause analysis, potential causes for the problem found in the bottleneck analysis are induced. Achterbergh et al. (2009) refer to those influential factors as parameters. These parameters can also be measured with norm values, actual values and the difference between those values. Parameters of the 'absenteeism among employees' case can be an epidemic or too little task variation. Reasons for the injury of the cyclist can be a stone on the road or forgetting that the shoes are locked to the pedals when stopping at a traffic light.

In the introduction of this thesis, the director of ZZG zorggroep named some probable causes. In order to give an answer to the first central research question, all the causes found by ZZG zorggroep should be tracked down. Knowing the norm- and the actual value can be helpful for creating a complete picture of the situation, but these might be hard to find. The values of the causes are therefore not the most important, but the relations between the problem and the causes are.

Ad 3. A solution space is created by selecting parameters from the cause analysis to complete the diagnosis. Only the parameters related to the problem and those that can be tackled by intervening in the infrastructure are selected. In the example used before, the epidemic will not be taken into account when creating the solution space, since it is something that cannot be controlled by the organisation. The little task variation, however, is something which can be controlled by the organisation and will, therefore, be selected as a parameter for the solution space.

The set of selected parameters provides a starting point for the next activity on the functional dimension: the design of the intervention, or put differently, the redesign of the infrastructure. Unravelling the solution space gives an idea of the (possible) measures.

In brief, the diagnosis activity is the opening activity of the functional dimension and aims to give insight into the problems, their causes and the direction of the solutions. This is done by performing a bottleneck analysis to identify the problems, a cause analysis to bring up the possible sources of those problems and creating a solution space by selecting the most relevant parameters.

2.2.2 Design

At least three things are essential for the design of an intervention: 1) the goal of the design activity, 2) the object of design, and 3) the design activities. To solve the problems (as found in the diagnosis activity) is the goal of the design activity, but is also the goal of the whole intervention. The goal of the intervention is already explained in section 2.1, which means that in the next subsections focus on the object of design, namely the infrastructure (section 2.2.2.1), and the design activities, attenuate and amplify (section 2.2.2.2).

2.2.2.1 Object of design: infrastructure

It is the goal of an intervention to improve the functioning of something relative to some goal (Achterbergh & Vriens, 2019). Some conditions should be changed to achieve this goal. As introduced in section 2.1.1, the culture of the organisation has a reciprocal relationship with the infrastructure and can be the object of intervention. The origin of the waiting list problem of ZZG zorggroep does not presumably lie in the culture of the organisation but in the infrastructure of ZZG zorggroep and in its environment. Infrastructures consist of three elements: division of work, resources, and technological means. These elements can be directly influenced (in contrast to culture, as Davies, Nutley, & Mannion (2000) state) and are the **object** of the intervention in this research.

Organisations carry out many processes at different levels at the same time (Achterbergh et al., 2009). These processes can be divided into two main categories: production processes and regulation processes. The production process enables the creation of the artefact or service. Regarding this production process, regulation is needed to deal with expected and unexpected disturbances. This will be further explained in section 2.2.2.2.

Three organisational conditions are needed to realise all these processes: HR, technology and structure. It is important to have motivated and capable personnel (HR); the right equipment like ICT and buildings (technology); and a right division of work which also entails the way the tasks are defined, related and divided over the available personnel (structure). These three conditions set the infrastructure of the organisation (Achterbergh et al., 2009) and also apply to networks of parties.

A network of parties can be described as the environment an organisation is active in. This also applies to ZZG zorggroep: it operates in an environment which, among others, consists of its clients, similar healthcare organisations and hospitals. Such a network of parties has its own infrastructure with a division of work, resources, and technology for the parties

involved. An example of a network of parties could be a few local shops that organise a festival in cooperation with the local government, the landowner of the festival location and maybe some associations. Each party involved has its own infrastructure but to organise the festivity they are part of an overarching infrastructure. This overarching infrastructure is a division of tasks (structure) over the involved parties (HR) supported by the available means (technology). This also means that both the problem and its solutions are probably found in those two types of infrastructures: 1) the infrastructure of the organisation, and 2) the infrastructure of the network of parties the organisation is part of.

An infrastructure can thus be described as the human resources who are working by a division of work, using a particular set of technology. With the infrastructure, operational processes can be performed and adapted, and it is the object to intervene in when change is needed. This applies to the organisation itself, but also for the network of parties the organisation can be part of.

2.2.2.2 Design activities: Attenuate and amplify

The goal of the design activity is to invent a suitable solution for the problems in the performance of the entity. To explain how this is done and what attenuating and amplifying measures are, the cybernetics theory of Ashby (1965) is used. This theory builds a framework that improves the studying and regulation of the behaviour of complex systems. It is about the regulation of all kinds of systems and shows that organisations experiment with goals, transformation processes and operational regulatory activities (Achterbergh & Vriens, 2009).

In their book 'Social Systems conducting experiments', Achterbergh and Vriens (2009) explain why organisations are social systems which conduct experiments for their meaningful survival, by using the theory of Ashby (1965). With his cybernetics theory, Ashby (1965) tries to develop means for the regulation of any kind of system. He defines systems as a set of essential variables, which are realised by a mechanism. An essential variable is a requirement which has to be kept within assigned limits, in order to achieve a particular goal (Achterbergh & Vriens, 2009). Achterbergh and Vriens (2009) continue this definition of systems for organisations and define organisations as (social) systems. An organisation sets most of its essential variables deliberately, although some essential variables are obligated to be selected because they are essential for specific goals (e.g. survival). The values of the essential variables can be disrupted by disturbances.

These disturbances can have any possible form, and their origin can stem from the environment of the concrete system but also from the concrete system itself. The organisation



has a mechanism that can realise the essential variables and that tries to deal with the disturbances, similar to the systems as Ashby describes them. This mechanism is what we call the infrastructure.

The infrastructure should be designed in such a way, that it is no source of disturbances itself and that it optimises the regulating potential. The regulating potential refers to the dealing with the disturbances and is also called regulation. Regulation is influencing the behaviour of a system in such a way that the values of the essential variables return within the set norm (Achterbergh & Vriens, 2009). There are three types of regulation to realise this goal: strategic regulation, design regulation and operational regulation (Achterbergh & Vriens, 2009). For a visual representation of the relations between essential variables, regulation and disturbances as described, see Figure 2 (Achterbergh & Vriens, 2009):

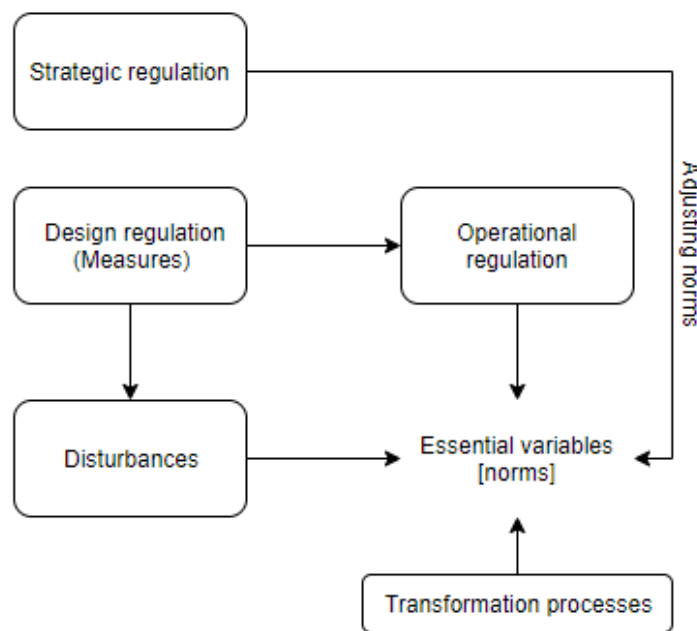


Figure 2 Visual representation of the relationship between essential variables, regulation and disturbances. Adapted from Achterbergh and Vriens (2009).

Ad 1. Strategic regulation, or regulation by means of control, means setting the targets for the system. This can be any kind of objective, but it is of crucial importance for the rest of the system because it displays the limits and boundaries of the essential variables. An organisation is in complete control when the operational regulation is perfect. For example, a cyclist does not want to have injuries from a bike crash. In that case, ‘Staying injury-free’ is the norm value.

Ad 2. Operational regulation deals with the variety of disturbances which negatively influence the operational processes of the system and thus the realisation of the set targets. Operational regulations can be divided into two categories: passive and active regulation.

Passive regulation works as a shell between the disturbances and the essential variable. The passive block acts indifferent of the state of disturbances: there is no involvement of selection of action. An example of a passive block is the helmet of a cyclist: the helmet is present, indifferent if the cyclist is falling or not.

Active regulation does require a selected regulatory move, depending on the circumstances. This form of regulation can be split up into two forms of regulation: cause-controlled regulation and error-controlled regulation. Cause-controlled regulation tries to prevent damage, error-controlled regulation repairs the incurred damage. To illustrate this with the example of the cyclist: the cyclist falls, and by trying to break the fall with his hands, the cyclist applies cause-controlled regulation. Due to the crash, the cyclist has some abrasions which are cured with iodine and a plaster: this is error-controlled regulation.

All in all, the purpose of regulation is to make the system show desired behaviour (reaching the norm values of the essential variables) by blocking the flow of variety from disturbances to the essential variables. If there are more disturbances than that there is regulatory potential, there are two things possible: first, the possible disturbances could be minimised and second, the regulatory potential could be added in order to deal with the possible disturbances. This is an application of the law of requisite variety (Ashby, 1965, p. 207).

Ad 3. The third and last type of regulation is design, the activity that constructs the mechanism to realise the targets set by control (Achterbergh & Vriens, 2009). This mechanism or infrastructure provides both the processes that realise those essential variables, as the regulation to make sure these processes can be carried out. Given some goal (the targets, i.e. the goal of the intervention), the designer tries to think ahead of the possible disturbances to this goal and tries to set up regulators which can deal with those specific disturbances.

There are two criteria to follow: first, one has to decrease (*attenuate*) as many disturbances as possible. Second, the regulatory variety has to be increased (*amplify*) as much as needed. These two criteria apply to both the construction as for any reconstruction of the infrastructure. The criteria are preferably applied in order since decreasing the number of disturbances makes the second task easier because there are fewer disturbances to regulate.

With attenuation, you try to recognise the possible threats to your goal and try to prevent them from happening. These measures remove (possible) causes of the problem, in the internal and external environment of the organisation. Attenuation focusses on both the process-activity of the mechanism, as on the regulation-activity: it tries to design the system as simple as possible, so it is itself not a source of disturbances. To illustrate this with the example of the cyclist, she can, to minimise the chance of getting injured, choose a route with less traffic.

By amplifying, more operational regulation is built into the organisation or mechanism in order to deal with the effects of the disturbances. In contrast to attenuation, which focusses on both the process-activity as the regulation-activity, amplification is only aimed at the regulation part of the mechanism. Amplification means selection of either passive blocks, error-controlled regulatory moves, cause-controlled regulatory moves, or all three. Therefore, amplification is marked both as passive as active regulation.

Concluding, an organisation consists of essential variables which are accomplished by the infrastructure. The realisation of the essential variable is threatened by disturbances. An infrastructure should be designed in such a way, that it is no source of disturbances itself (attenuation), and that it is able to deal with possible disturbances (amplification).

2.3 Conclusion

The first central research question wants to determine what the attenuating and amplifying characters of the measures taken by ZZG zorggroep are. The first sub-question is answered in this chapter. With the explained concepts, an answer to the other sub-questions can be found.

The following questions were formulated with the insights from the diagnosis theory by Achterbergh et al. (2009) to find the problem as experienced by ZZG zorggroep (sub-question 1.2):

- a) What diagnostic variables are used to look at the functioning of the organisation in relation to the waiting lists?
- b) What were the norms of those diagnostic variables?
- c) What were the actual values of those diagnostic variables?
- d) What was the difference between the norm and actual values?

The following question needs to be answered to find an answer to the causes of the problem as found by ZZG zorggroep (sub-question 1.3):

- a) What parameters are found?
- b) What were the norms of those parameters?
- c) What were the actual values of those parameters?
- d) What was the difference between the norm and actual values?
- e) What are the relations between the problem and the found parameters?

To get to know those solutions to the experienced problems (sub-question 1.4), we have to take a look at:

- a) What are the designed measures?
- b) What are the parameters indicating the causes of the problems? Are they
 - Structure-related,
 - HR-related or
 - Technology-related parameters?
- c) What relates the problems and the solutions?

Regarding sub-question 1.5, we want to know:

- a) Which measures are solving the causes and thereby the problems of the organisation? In other words, which measures are attenuating?
- b) Which measures are helping to deal with the effects of the problems? In other words, which measures are amplifying the regulatory potential of the organisation?

This chapter gives a description of the context of the waiting list problem at ZZG zorggroep in section 3.1. The research strategy of this part of the thesis is shown in section 3.2. Section 3.3 describes the used data sources and how the data was collected from these sources. Which logic was used to analyse this data is discussed in section 3.4. The quality of the research is discussed in section 3.5. Section 3.6 provides research ethics.

3.1 Context: ZZG zorggroep

ZZG zorggroep is a healthcare organisation in the surrounding region of Nijmegen (the Netherlands). Previously, three regions were distinguished: Nijmegen, Rijk van Nijmegen (RvN) and Wijchen, Maas & Waal (WMW). Nijmegen includes Lent (also called Nijmegen-Noord), while Heumen, Mook, Groesbeek, Ubbergen and Millingen aan de Rijn belong to Rijk van Nijmegen. West Maas en Waal, Druten, Beuningen and Wijchen are part of Wijchen, Maas & Waal. See Figure 3 for a map.

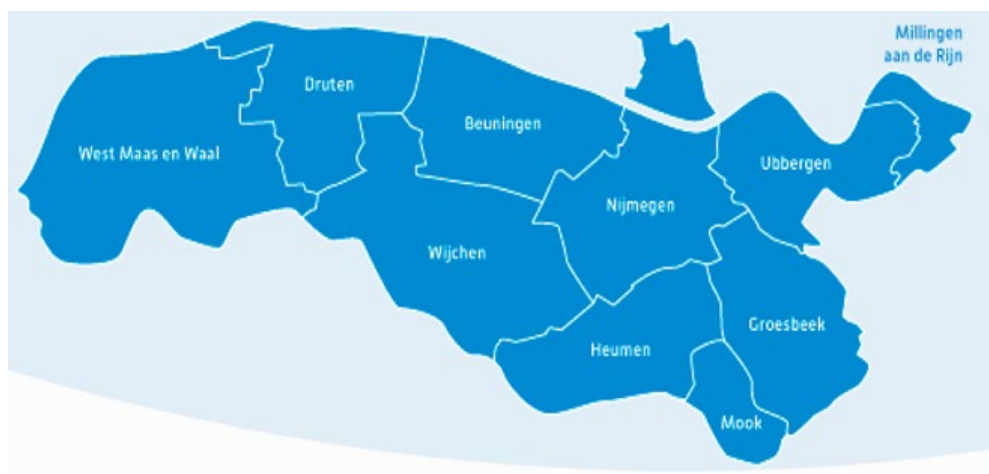


Figure 3 Overview of the different regions ZZG zorggroep is active in. Retrieved from Hans Vos, 2019

The organisation employs almost 3,000 people, and around 900 volunteers are supporting the organisation's activities. The organogram of the organisation is shown in Figure 4. The 'Raad van Bestuur' (Board of Directors) makes the policy and is supported and informed by 'Clientenplatform' (Client co-determination) and the 'Centrale Ondernemersraad (COR)' (Central Work Council). The board of directors is overseen by the 'Raad van Toezicht' (Supervisory Board) and, in their turn, oversees the organisation's departments. These departments are: 'Bestuurssecretariaat' (Corporate secretariat), 'Vastgoed' (Real estate) and 'Communicatie' (Communication). All these departments, including the care flows, are connected with HR, 'Informatisering, Automatisering en Domotica' (Computerisation,

Automation and Domotica), ‘Zorgadministratie en Clientenlogistiek’ (Health care administration and Client logistics), ‘Centrale Zorgthema’s/Medisch directie’ (Central care themes/Medical directors), ‘Kwaliteit, inkoop en beleid’ (Quality, purchase and policy) and Finance & Control (ZZG zorggroep, 2018). In 2017, the organisation divided her activities into three ‘zorgstromen’ (care flows): ‘Beschermd en beschut wonen’ (Protected and sheltered living), ‘Geriatrische Revalidatie en Herstelzorg’ (Geriatric rehabilitation and recovery) and ‘Wijkverpleging’ (District nursing). This division was chosen to respond to the changing needs of clients and employees and to strengthen the quality of care as a whole (ZZG zorggroep, 2017).

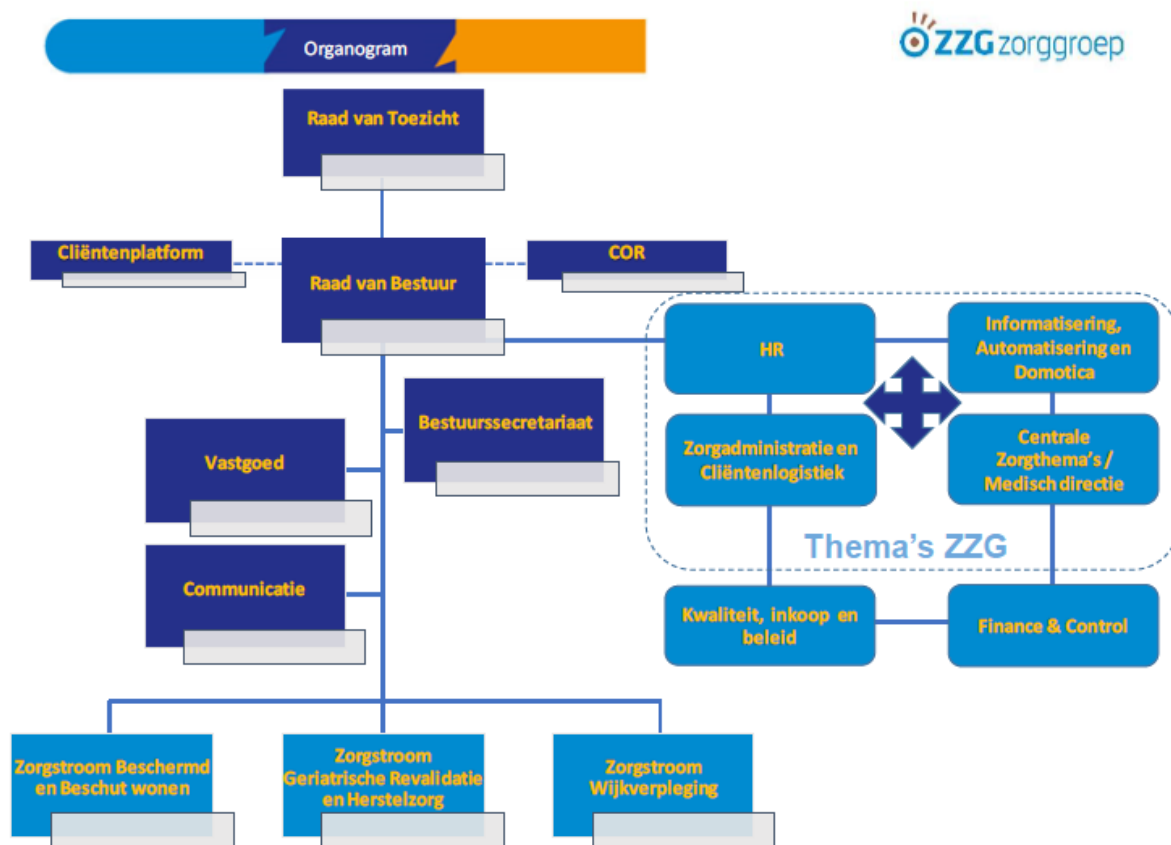


Figure 4 Organogram of ZZG zorggroep. Retrieved from Jaarverslag ZZG zorggroep 2018: Deskundig, Liefdevol, Helder.

The first healthcare flow is **protected and sheltered housing** which is designed in line with the ‘Wlz’ (Wet Langdurige Zorg, which freely translates to Law Long-term Care). The core business of the healthcare flow is providing long-term or chronic care, or both. With one exception, this care is provided intramural. Intramural means that the care is provided at a location of ZZG zorggroep. The two main activities, *protected living* and *sheltered housing*, are divided over 26 locations. Protected living can be described as an all-in arrangement, which means that, among others, a living space, 24/7 care, general practitioner, meals are included.

Sheltered housing requires the patient to be able to pay for the rent to external housing cooperation. The long-term or chronic healthcare is included; most other options like meals and cleaning are optional.

The second healthcare flow, **geriatric rehabilitation and recovery**, provides short-term care for elderly who just had an operation and need to recover or rehabilitate. This can be day-care or short-stay. These activities take place at one location.

District nursing, the last healthcare flow, is divided over the region into small teams, which consists of professionals who help clients at the clients' home with, e.g. medicine intake, wound care and client-specific advice (ZZG zorggroep, n.d.-a). District nursing is also called home care.

The protected and sheltered housing healthcare flow experiences problems with the waiting lists for their locations, because these are growing faster than they can cope with. Patients can only get access to the waiting lists when they have an indication issued by *CIZ* (Centrum Indicatiestelling Zorg, which freely translates to Assessment Care Centre). This independent healthcare institute checks if the patient is in need of long-term or chronic care, or both. If this is the case, the institute determines a care profile for the patient, which can be numbered from 4 to 10. The main difference in the care profiles is made on the distinction between *psychic geriatric (pg)* and *somatic*. These base principles mainly determine the nature of the needed care. The houses of ZZG zorggroep are consequently organised to take care of somatic or psychic geriatric patients. If patients have both health issues, psychic geriatric is the leading base principle. Patients on the waiting lists can only move to a location when there is a so-called mutation; this occurs when the previous resident of the home has died.

3.2 Research strategy

This research is intervention-oriented because it evaluates an intervention. Intervention-oriented research evaluates the implementation of the design to solve the diagnosed problem (Verschuren, Doorewaard, & Mellion, 2010). The implementation of the intervention design is not evaluated because not all measures are implemented yet. To evaluate this intervention, the variables *problem*, *causes* and *measures* are described in order to define if the measures are attenuating or amplifying. These variables are described using qualitative research methods.

Qualitative research provides tools to investigate how the researched entities relate to another (analytical generalisation). This, in contrast to quantitative research, which let the researcher make statements about the strength of the relationship (statistic generalisation) (Bleijenberg, 2015). Therefore, the variables in this research can not be researched using

quantitative data because this would only measure the strength of the relations between the variables. Therefore, the data sources are qualitatively inquired in a holistic approach. A holistic account entails reporting multiple perspectives to generate a picture (Creswell & Creswell, 2017).

A case study is an often-used research method in qualitative research. This study has many similarities with the characteristics of a case study: this study also researches a small domain, generates data intensively with the use of qualitative research methods and is selective in its sample (Creswell & Creswell, 2017). However, this research is not a case study, since this implies that the study is part of the empirical cycle (Rouwette, 2013) while we have just stated that the study is part of the intervention cycle. This research will not dive in details of this distinction but recommends Rouwette (2013) for further information on this subject.

Concluding, qualitative research methods are used to describe the variables in order to determine if the measures of ZZG zorggroep to deal with the waiting list problem are attenuating or amplifying.

3.3 Data sources and collection

To describe the variables *problem*, *causes* and *measures*, the chosen data sources are inquired in a qualitative way. Qualitative research provides several different options to gather information from a range of data sources. The aim of qualitative research is constructing a sample of data with information, rich enough to understand the particular case (Needleman & Needleman, 1998). The two data sources used in this research are employees of ZZG zorggroep and documents. Interviews were held with the employees, and content analysis on the documents was performed in order to obtain the data from these sources.

Boeije (2005, p.73) notes that the research process in qualitative research is often remarked by the interchange of collecting data and analysing data. While the interviews were conducted, an analysis was performed on the documents and on the finished interview transcripts. This provided a better understanding of the problem, the causes and the measures and allowed for going into further detail with every interview.

3.3.1 Interviews

Eleven face-to-face interviews were conducted to collect all the needed data from the employees. The interviews were semi-structured because this provided both flexibility and guidance. All interviews were recorded, transcribed, processed anonymously and then sent to

the interviewees. This to give the interviewees the possibility to give their feedback on the transcript, to explain something a little bit more or to change something if needed.

With every interview, the researcher learned more about the problem and its context, which allowed for more in-depth questions in the next interview. For that reason, there wasn't used a fixed interview guide, except for the first interview.

On March 14, 2019, a meeting was held with four key figures in the intervention of ZZG zorggroep concerning the waiting list problem. This group interview was arranged to construct an image of the problem and its causes as perceived by ZZG zorggroep, as the planned measures to deal with the problem. The interview topics can be found in Appendix 1.

The interviewed directors and managers are part of the project group responsible for the intervention. Each director and manager has from his or her place and function in the organisation another perspective on the problem. They provided the most input for creating an image of the problem, the causes of this problem and the measures to deal with the problem. The other interviewees were professionals, the people concerned with the transformational processes of the organisation. These people helped to create an image of the practice of the problem, its effects, the causes and the impact of the measures on their work. Table 3 presents an overview of the interviews ordered by the date. For privacy reasons, their names are not provided. Their function is given because this gives context to their statements.

Date	Interview type and the corresponding number	Respondents, differentiated by function and the corresponding respondent number
14/3/2019	Group interview 1 (GI1)	Two directors, two managers (R1, R2, R3 and R4)
4/4/2019	Group interview 2 (GI2)	Two managers (R2 and R5)
10/4/2019	Interview 1 (I1)	Director (R3)
17/5/2019	Group interview 3 (GI3)	Two waiting list managers (R6 and R7)
3/6/2019	Interview 2 (I2)	Director (R1)
7/6/2019	Interview 3 (I3)	Case manager (R8)
11/6/2019	Interview 4 (I4)	Case manager (R9)
20/6/2019	Interview 5 (I5)	Waiting list manager ZZN (R6)
21/6/2019	Interview 6 (I6)	Case manager (R10)
24/6/2019	Interview 7 (I7)	Case manager (R11)
28/6/2019	Interview 8 (I8)	Manager (R4)

Table 3 List of interviews (GI_n and I_n), respondents (distinguished by function) and their corresponding respondent number (R_n)

3.3.2 Documents

The documents collected for this research are transcripts from meetings, summaries of analyses, PowerPoints for internal presentations about the waiting list problems and other reports relative to the waiting list problem. All these documents were sent to the researcher by the members of the project group, the interviewees from the first group interview. A selection

was made from the obtained documents since some of the documents were not helpful for describing at least one of the three variables. The overview of these documents is given in Table 4.

Document	Document title
Document 1 (D1)	Regionaal crisis protocol d.d. 01-01-2019
Document 2 (D2)	De kwetsbare ouderen in de thuissituatie_Klantreis ZZG
Document 3 (D3)	Wachtlijstbeheer centraliseren DO maart 2019
Document 4 (D4)	Centraal wachtlijstbeheer - startnotitie
Document 5 (D5)	Verslag project wachtlijstbeheer, bijeenkomst nr.3
Document 6 (D6)	Implementatieplan prof as DEF (2)
Document 7 (D7)	Casemanager fube concept mei 2016
Document 8 (D8)	Adviesrapport langdurige zorg thuis concept 1.5
Document 9 (D9)	20180726 Cijfers & ontwikkelingen
Document 10 (D10)	Doorstroming naar Wlz-locatie
Document 11 (D11)	Grafieken tbv 26102018
Document 12 (D12)	20181203 Advies strategievorming
Document 13 (D13)	Jaarverslag ZZG zorggroep 2017
Document 14 (D14)	Jaarverslag ZZG zorggroep 2018
Document 15 (D15)	Discussiestuk Crisisregeling VV instellingen subregio Nijmegen
Document 16 (D16)	CONCEPT 1 Bijlage: analyse van capaciteit en in- en doorstroom

Table 4 List of documents (Dn) and their titles as given by the author(s) of the document

3.3.3 Data collection overview

In the following table presents which sources provided data to describe the variables.

	Interviews	Documents
Problem	GI1, GI2, GI3, I1, I2, I3, I4, I5, I6, I7, I8.	D1, D2, D3, D4, D5, D8, D9, D10, D11, D12, D13, D15, D16.
Causes	GI1, GI2, GI3, I1, I2, I3, I4, I5, I6, I7, I8.	D1, D2, D3, D4, D5, D8, D10, D11, D12, D1, D14, D15, D16.
Measures	GI1, GI2, GI3, I1, I2, I3, I4, I5, I6, I7, I8.	D2, D3, D4, D5, D12, D13, D15, D16.

Table 5 Overview of which data source gave input for the description of three variables problem, causes or measures.

3.4 Data analysis

The analysis in this research follows a deductive approach: existing theory is used as a starting point to study a phenomenon in the empirical field (Bryman, 2012). The phenomenon in this study is the relationship between the causes and the measures. This can be found by describing the three variables *problem*, *causes* and *measures*, which was done by taking the following described steps.

The first step involved analysing all interviews and documents using the code tree, as presented in Appendix 1. The theory discussed in chapter 2 provided the input to construct the

said code tree. The code tree provides input for the coding and a directive for looking into the data. What did every respondent say concerning each variable? And what could be found in the documents about each variable? This led to an overview of the statements of each variable.

The second step entailed looking for the similarities and the differences in each variable. Every statement of documents and respondents about a particular variable was compared with the other statements. This formed the input for the next step: giving a conclusion.

In the third step, a conclusion was given of each variable based on the gathered information. On each variable, both the coherencies and the differences were remarked.

Based on the conclusions and with the input of the conceptual model, which was formed in chapter 2, it could be analysed if the measures are attenuating or amplifying. This means that measures' impact on the causes or their impact on the problems' effects were evaluated.

3.5 Research quality and ethics

The quality of the methodology of this research is determined by checking the internal validity and reliability. Usually, the external validity of a study also provides input for determining the research quality. External validity refers to the generalisability of the results to other, comparable situations (Bleijenberg, 2015; Boeije, 2005). Because this research is intervention-oriented, realising the generalisability is not possible and necessary.

3.5.1 Internal validity

Internal validity refers to what extent what the researcher measured what it intended to measure. This can be realised by adequate research design. A sufficient literature review, in which the needed theory to study the main objectives is reflected, is part of adequate research design (Bleijenberg, 2015; Boeije, 2005; Saunders, Lewis, Thornhill, Booij, & Verckens, 2011). Chapter 2 explained what an intervention is, how this is done in an organisation, what is understood by amplification and attenuation, what the problem is, how this can be diagnosed, what causes are and what measures are to deal with the problem and its causes. Because of this thorough description, the research could study what it intended to study, and the internal validity is therefore guaranteed.

Next to that, the correspondent validity was taken care of by member-checking during the interviews. This is done by repeating the respondent's statements in the researchers own words, to be sure that it is understood what the respondent intended to say (Vennix, 2011).

Also, the respondents were sent the transcripts of the interviews, so they could provide feedback on the document. This enhances the internal validity of the results (Vennix, 2011).

3.5.2 Reliability

The reliability of the research refers to what extent the data collection methods and analysing procedures lead to consistent findings and are free of unsystematic errors (Boeije, 2005; Saunders et al., 2011).

Because multiple people were interviewed about the same topics (the variables problem, causes and measures), the information about the topics is more reliable than when only one perspective on those variables was obtained. The information from the interviews is also compared with the data found in the documents and vice versa. This is called triangulation of data, in which the research subject is observed from multiple data sources (Flick, 2012).

Next to that, by systematically analysing the data following the steps provided in the previous sections, controllability is guaranteed. Controllability means that the researcher explains which choices were made and that the data is systematically captured in transcripts, so there can be understood how and what is done (Bleijenbergh, 2015).

3.6 Research ethics

Before every interview, the respondent was explained the purpose of the interview and how the data would be processed. It was also emphasised that the respondent was free to retreat from the interview at any time without giving an explanation.

Next to that, permission to record the interview was asked and received. The recorded file was afterwards processed, and this anonymised document was sent to the respondent for approval. This allowed the respondent to withdraw any statements. With all these efforts, the researcher tried to answer the ethical desires and expectations of the respondents.

Chapter 4

Part I: Results and analysis

The first central research question is aimed at determining the attenuating and amplifying character of the measures taken by ZZG zorggroep. In order to answer this question, the problem, its effects, the causes of this problem and the solutions to the problem need to be described. This chapter presents the empirical findings of the problem and its effects (section 4.1), the causes (section 4.2) and the measures (section 4.3) as experienced, found and created by ZZG zorggroep. The last section also presents the analysis of those measures in contrast to the effects and the causes of the problem. Section 4.4 presents the conclusion. Based on the results and additional information obtained during the interviews, section 4.5 presents an advice for ZZG zorggroep.

4.1 Problem and effects

4.1.1 Problem

A problem occurs when the norm values of the essential variable are not met (Achterbergh & Vriens, 2009). The problem can be indicated by looking for the ideal situation (norm value) and the current situation (actual value) of the essential variable. The difference between those values (error value) indicates a problem. In the organisational context, the essential variable is as a rule related to the goal of the organisation. When the organisation cannot reach (one of) its goal(s), there is a problem.

ZZG zorggroep found out that there was something wrong when the case managers noted that they had to spend so much time on managing the waiting lists for their locations that they did not have time for their other tasks. This was mentioned in the initial interviews with one director and in the first group interview. The case managers who work in the areas Rijk van Nijmegen (RvN) and Wijchen, Maas & Waal (WMW) and have to keep track of the waiting lists, confirmed these statements. They mentioned that a lot of their time is spent on managing the waiting lists instead of looking after the clients who are currently living at their Wlz locations. The amount of time spent on managing the waiting lists is not in line with their task description (FTE). This mismatch was an indicator that there was something wrong.

In the interviews was asked about the goal that ZZG zorggroep tries to realise. This goal is displayed in the vision of ZZG zorggroep: *“We have the vision to place the right patient in the right place, at the right moment.”* – Respondent 2 (manager). This vision is repeated in every other interview and can also be found in some of the documents, for example, document 13. ZZG zorggroep tries to realise its vision by aiming their Wlz locations at the neighbourhood



it is in and try to place people with comparable social backgrounds together. This way, they attempt to create the most excellent possible environment by matching every new patient with the current inhabitants of the location.

However, ZZG zorggroep experiences trouble realising this vision: *“The problem is that a certain percentage of the clients does not end up in the right time at the right place.”* – Respondent 2 (manager) Derived from the goal, the essential variable can be seen as the number of people who are placed at the right time at the right place. Or in other words, the number of people who cannot be placed at the right time at the right place. ZZG zorggroep keeps track of these people by means of waiting lists. The norm value attached to this essential variable is zero: the lower the number of people on the waiting list, the higher the chance that ZZG will reach its goal. *“In the ideal situation: ‘I have a ticket, I want to be hospitalised now, which means I have a place [in one of the houses] tomorrow’. But that is impossible because there are waiting lists.”* – Respondent 5 (manager). The other respondents state the same thing: because of the waiting lists, the goal of ZZG zorggroep cannot be met. So, the waiting lists are obstructing the realisation of the goal. An actual value (the number of people on the waiting lists) needs to be determined in order to determine the error value of the problem.

“Within ZZG zorggroep, regular waiting lists are kept in different ways by different officials. Every location keeps its own waiting lists, but only in (region) Nijmegen, this is collectively done by ZZN” – Document 9. Therefore, getting an overview of the overall organisation is not entirely impossible, but it takes some effort to contact every single location and compile an overview. Getting real-time information about the waiting lists is thus complicated. An overview of the number height of the waiting lists for each Wlz location on October 22nd, 2018, was compiled, as shown in Figure 5.



Figure 5 Number of people on the waiting lists of ZZG zorggroep locations on 22nd of October, 2018 (Retrieved from Document 11, ZZG zorggroep).

Comparable numbers were found in other documents and in some interviews: “*The number of clients on the waiting lists of Rijk van Nijmegen (RVN), Wijchen, Maas & Waal (WMW) is approximately 200*” – 10 January 2019, Document 5, for the region Nijmegen, this number is 71 (*17th of May, interview 3*). “*There are now 37 people on the waiting list, and we have 32 places.*” – Respondent 8 (case manager). Nonetheless, the documents and interviews also exposed that there are several waiting types. This means that the number of about 270 people on the waiting lists is correct, but that the situation is more complicated than it seems at first glance.

Two main waiting types can be distinguished: **regular** and **non-regular**. These terms are chosen because the other often used titles (*active* versus *non-active*) were confusing since one of the labels a client can get is also called *active*.

- 1) **Regular** are all clients who subscribed for one or more houses of preference and wait until they are offered a place. There are two subcategories: non-active and non-waiting clients. Non-active is a somewhat confusing term because it seems like the client is not waiting while they are waiting for a place. “*In principle, people are reported as non-active, coupled to a house of preference. (...) If someone expects that there is no need for admission in the next two years, you will mark the client as non-waiting.*” – Respondent 6 (waiting list manager). There is no placing limit set for these types of clients.
- 2) Clients with labels *active*, *urgent*, *detention* or *crisis*¹ belong to the **non-regular** category. These labels are only issued when the client is in such a situation that a sooner admission is needed. Every label comes with placement limit in which the client needs to be offered a spot in a Wlz house, for example, in three months for active clients. The labels and their corresponding placement limits are determined in an agreement by some healthcare organisations in the region or by the healthcare office, who is responsible for the healthcare in its region. As a consequence of the placement limits, non-regular waiting clients get priority for the available spots over regular waiting clients.

¹ The four labels imply a placing limit. ‘Active’ is a label as issued by the regional health office, which states that clients need to be placed in three months. ‘Urgent’ means that client needs to be placed in two weeks and is issued by the BCI. The label ‘detention’ is only issued when a person does not want to move, but for its own and its environments safety, compulsory admission will take place in 48 hours after the judicial authorisation. The label crisis implies admission within only 24 hours. This label can only be requested by the general practitioner or the transfer point of the hospital and is only issued by the BCI.



The total waiting list number of about 270 people consists of two categories of waiting clients: regular and non-regular. The exact numbers of each group are still hard to find. Document 8 states that, except for a few, all clients on the waiting lists are marked as regular, because they want to move to the house of preference. This statement is supported by all respondents. *“People choose to stay non-active because they only want to go to the house of their preference.”* – Respondent 6 (waiting list manager). *“I think that many people on the waiting list, in reality, are active waiting clients. And we state them as non-active waiting because they will otherwise lose their preference.”* – Respondent 8 (case manager).

The inability to concretise the exact numbers of each category can be explained by the fragmented waiting list management as well. *“A total overview is non-existent, every house has its own registration and definitions are interpreted in different ways”* – Document 9. This way of organising the waiting lists does not only make it difficult getting real-time information, but it also leaves room for multiple ways of interpreting the waiting lists. *“An overview of ZZN at 17/07/2018 shows that the total number of people waiting for the houses that are mediated by ZZN is 142 on the reference date. However, the ratio between active and non-active waiting is multi-interpretable. Officially, there are 10 active people on the list, but this number is higher in practice because it only concerns active people from an extramural setting. From an intramural setting, the clients are not officially waiting in intramural Wlz, but in practice, they are in part actively waiting.”* – Document 9. This statement explains that the numbers that can be found about non-regular and regular waiting clients are ambiguous and need to be viewed in context. So, because of the irregular waiting lists management, the precise numbers of non-regular and regular waiting clients on the waiting lists are not easy to find.

Because non-regular clients have imposed placing deadlines, they get priority over the regular waiting lists. So, the non-regular waiting lists have a high turnover rate, while the regular waiting lists continue to grow. Both waiting lists are a problem, but the regular waiting lists is the one that grows: as respondents noted, most people being abetted are non-regular clients. Regular admission hardly takes place, and when it does, it is often to prevent clients from becoming crisis clients.

The respondents frequently mentioned that in particular, one type of non-regular clients claimed the vacant places: *“We have about 12 to 15 admissions in a year. (...) More than six of them were crisis clients.”* – Respondent 9 (case manager). *“The last six people that came to live here were all crisis clients”* – Respondent 10 (case manager). This indicates that the crisis clients make up the majority of the non-regular waiting clients. According to document 2 and 11, ZZG zorggroep took care of 227 crisis clients in the year 2017. Of these 227 crisis patients,

99 people could not return home and consequently, got a place in one of the Wlz houses. Concluding, the precise numbers of regular versus non-regular clients are hard to find due to ambiguous terms and way of keeping track; the fact is that the majority of the non-regular waiting clients are crisis clients.

All in all, the goal of ZZG zorggroep to place the right patient at the right time is not being reached as indicated by the long waiting lists. The norm value should be close to zero to fulfil their goal. Nevertheless, there are around 270 people on the waiting lists which disturb this goal. This number of waiting clients can be divided into two categories: regular and non-regular clients. The non-regular clients have priority over the regular waiting clients, which results in longer waiting lists and times for regular waiting clients. Precise numbers of both groups are hard to find, mostly due to the inconsistent waiting list policy of ZZG zorggroep. Remarkable is the number of crisis clients, who seem to be the majority of non-regular clients and therefore claim most of the vacant places.

4.1.2 Effects

This research not only tried to define the problem, but it also tried to explain its effects. This was done by questioning the respondents about the consequences of the long waiting lists. Not only for themselves but also for the other people involved. A similar method was used with the documents by looking for cues providing information about the consequences of the problem. The found effects can be categorised in three perspectives: the patient and his informal caregiver, the employees of ZZG zorggroep and the organisation of ZZG zorggroep as a whole.

4.1.2.1 Client and his informal caregivers

A first consequence of the long waiting list for the regular waiting clients is that they have to wait longer to get a place. In the documents can be found that the waiting time is 1 to 3 years (although 3 years is an exception). This is acknowledged in the interviews, for instance in interview 3 with the ZZN employees: *“We are talking about [waiting time] a year and a half to two years”* – Respondent 6 (waiting list manager). *“The problem is that a certain percentage does not end up in a place at the right time.”* – Respondent 2 (manager). In document 8, it is described that the average number of days clients are waiting, has increased with 21 days over a period of seven months (from November 2017 to June 2018). On the 22nd of October 2018, this waiting time had an average of 235 days, see Figure 6.



Figure 6 Average waiting time per location and overall average on reference date 22nd of October, 2018. Retrieved from document 11, ZZG zorggroep

In the worst case, people die before they get offered a place in one of the ZZG zorggroep locations. *“The current situation is that it can take years [to get a place], or that people have died even before they get a place”* – Respondent 5 (manager).

When the clients can finally enter the Wlz location, they will live there for a shorter period of time than patients did before. One case manager explains that four years ago, people tended to stay at her location for 2 years on average. Nowadays, people tend to live about a year at the location.

Because people have to wait long for a place, the care they really need is delayed. Interim care is provided while they are on the waiting lists, but this never makes up for the care they really need. This increases the chance that their health situation will decrease faster than it would when they are in a stable, safe environment like the protected or sheltered living spaces of ZZG zorggroep.

The higher chance of a declining healthcare situation increases the possibility that clients become non-regular waiting clients themselves. *“Because all these people (crisis clients) have priority, the people on the ‘regular’ waiting lists do not get their turn. And because they do not get their turn, they become crisis themselves”* – Respondent 6 (waiting list manager).

The longer clients have to wait, the worse their health situation is possibly going to get. An unstable health situation puts pressure on the client’s informal caregivers. *“We see many informal caregivers who were extremely overburdened.”* – Respondent 10 (case manager). Informal caregivers take care of everyday tasks like cooking or cleaning, accompany the client

to doctor's appointments or simply provide social interaction. Family, like partners or children, are usually informal caregivers. They are usually the only reason a client can stay at home safely. *"A lot of crises arise because the informal caregiver collapses. If an informal caregiver collapses, then you hang."* – Respondent 10 (case manager). The longer the waiting times, the harder the situation gets for the informal caregivers: *"I think that a waiting period of one to three months also offers some perspective for people. Like 'I have to keep it up for some more time, but then my father or mother can be admitted'. But when we are talking about a year or two, like we do now..."* – Respondent 6 (waiting list manager). So, the long waiting times not only affect the client but also put a lot of extra pressure on the informal caregiver.

In conclusion, waiting lists have the following possible effects for the 'regular' client and his informal caregiver:

1. Long waiting time
2. Chance of dying before being admitted
3. A shorter stay on average
4. Declining health
5. Higher chance of becoming crisis client
6. More pressure on informal caregiver

4.1.2.2 Employees of ZZG zorggroep

In the function description of the case managers, seven paragraphs are devoted to the waiting list tasks. These tasks range from keeping an overview to giving guided tours to potential clients to visiting potential clients at their home to check if they are a match with the house of preference. This was confirmed in the interviews. The workload per waiting client starts with the first contact via phone, which sometimes lasts over an hour. When a client wants to stay at a Wlz location, they have to get an indication from the CIZ. They have to request this themselves, but very often, they do not have any idea how to do this. The waiting list manager needs to help with this request then as well, which usually lasts about an hour and a half. When the client states that he or she wants to stay at a specific location, he or she is offered a guided tour through the location by the case manager. When the client is still positive about the location, the client is placed on the waiting list. When the client decides that the house is not what he or she is looking for, several hours are spent for nothing.

When the potential client does want to be on the waiting list, the waiting list manager is responsible for the interim care of the client until they are admitted. The waiting list manager

has to make sure that the client receives the needed care. After the client is placed on the waiting list and receives interim care, then they just have to wait. The waiting list manager needs to check in with the waiting clients every three months to find out how everything is going if the interim care is still in line with the needs of the client and if they want to be labelled as ‘active’ or not.

So, for the waiting list managers, every extra waiting client implies extra work. This is, in particular, a problem for the case managers in the regions RvN and WMW. As explained before, case managers in Nijmegen do not have to do all the waiting list tasks as described because the waiting list management is allocated at ZZN. Case managers employed in the region Nijmegen only see waiting clients when they request a guided tour. The case managers in WMW and RvN, however, spend a lot of their time on the waiting lists: *“I believe I am busy [with the waiting lists] one whole working day in a week.”* – Respondent 10 (case manager). This means that of her 40-hour work week, 32 hours are left for the patients she is already responsible for. ZZG zorggroep determined that a case manager should spend half an hour per week to each patient living at the Wlz locations (s)he manages. In the case of the said case manager, who is responsible for 78 patients, officially 39 hours per week, should be spent on those clients. This example shows that the waiting lists require a lot of work, which negatively influences the available time for the current residents of the locations.

Furthermore, the urgency with which the non-regular clients need to be placed sometimes causes delicate situations at the houses they are placed in. As one case manager describes: *“There are more and more people with dementia with behavioural issues. We get more of those people. And we have eight people on each floor. And on one floor, we have a group of people who do not like each other. They are impatient, they beat, swear, kick. [...] You will not get the nice, sweet demented woman anymore. These stay at home. What you see is that the people who really cannot stay at home anymore, they are abetted. But then you are already at a distant stage, and the moving will bother those people.”* – Respondent 11 (case manager). So, the people who are getting a place are in such an unstable situation, that it disturbs the often delicate living situation at the houses. This results in more work for case managers. Several case managers could confirm this statement of respondent 11.

In conclusion, waiting lists can have the following effects for the employee:

7. Wasted time when registrations are cancelled
8. More work on:
 - a. Arranging interim care
 - b. Regularly check-ins
9. Time spent on waiting client cannot be spend on current residents
10. Difficult situations at the location to deal with

4.1.2.3 ZZG zorggroep overall

As described in the previous section, the long waiting lists demand a lot of time from the case managers, especially from those working in the regions WMW and RvN. All their time spent on waiting list management cannot be spent on their current residents. This can negatively influence the quality of care for their current residing clients.

Moreover, the long waiting lists complicate the realisation of the vision of ZZG zorggroep. For the regular waiting clients, chances that they are placed at the right time are low. The long waiting times often imply that the health or the environmental situation, or both, of regular waiting clients can deteriorate. As some respondents state, it would be better to place people within three months after registration at ZZG zorggroep.

Chances that ZZG zorggroep fulfils their vision of the right patient at the place are even lower for non-regular clients. Because those clients are offered the first place available, the chances are low that this place is the right place for the client. As some case managers have pointed out, not being able to place the client at the right place disturbs the sometimes fragile living environments at the Wlz locations. These conditions are being tried to achieve by placing people together from similar backgrounds and social environments. When people are more randomly assigned to houses, simply because they need to be abetted, these efforts are often negated.

This is also another side-effect for the client: not being placed at the right house can lead to poor living conditions, as described in section 4.1.2.2. This starts the discussion if case whether managers can refuse clients who do not entirely fit in the available place so they can maintain their goal to provide a pleasant living environment.

In conclusion, waiting lists have the following effects for ZZG zorggroep as a whole:

11. Reduced quality of care
12. The vision to place the right patient at the right time is harder to realise
13. The vision to place the right patient at the right place is harder to realise

All effects summed up:

1. Long waiting time
2. Chance of dying before being admitted
3. A shorter stay on average
4. Declining health
5. Higher chance of becoming crisis client
6. More pressure on informal caregiver
7. Wasted time when registrations are cancelled
8. More work on:
 - a. Arranging interim care
 - b. Regularly check-ins
9. Time spent on waiting client cannot be spend on current residents
10. Difficult situations at the location to deal with
11. Reduced quality of care
12. The vision to place the right patient at the right time is harder to realise
13. The vision to place the right patient at the right place is harder to realise

4.2 Causes

The severe mismatches between the actual situation and the prescribed situation alarmed the management of ZZG zorggroep. They instantly found two causes for the growing waiting list problem: crisis clients and the patients coming from their revalidation centre. These and others were addressed and explained in the interviews and documents. There happen to be some ongoing societal and regional developments which have an immense impact on the waiting list problem as defined in the previous section. Besides those developments, there is something to say about the way ZZG zorggroep designed their waiting list management which influences the problem. Therefore, a distinction between external (environmental) and internal (organisational) causes is made.

4.2.1 External causes

From the interviews and documents, seven main categories of disturbances could be extracted:

- 1) Growing number of crisis clients
- 2) Growing target audience
- 3) People waiting to register
- 4) Decreasing well-being of target audience
- 5) Overburdened informal caregivers
- 6) Staff shortage
- 7) No regional registration agreements

As explained in the problem section, the first cause directly influences the regular waiting lists. The following six disturbances not only have a direct impact on the regular waiting lists but can also influence the number of crisis clients which in their turn influence the regular waiting lists.

1) Growing number of crisis clients

From the interviews, it became clear that the biggest disturbance of the waiting lists is a large number of crisis clients. The crisis client problem disturbs the normal admission process in a “*very intense*” way, as respondent 2 state. “*What we saw in the past one and a half to two years is that the number of crisis clients and the complexity was increasing at an extreme level.*” – Respondent 1 (director).

A crisis client is defined in the crisis protocol of Nijmegen and its region (Document 1) as “*someone who lives at home and experiences sudden failure of informal care. This results in the loss of indispensable care and/or there has to be taken action to prevent unacceptable (health) risks for the person concerned and/or its immediate environment. The care needs to be provided in an intramural healthcare institute, which means hospitals or other institutions are out of the question.*” There are several reasons why a client can become a crisis client. Respondent 1 (director): “*a crisis with an informal caregiver problem is a whole other crisis than someone having a... Let’s say a healthcare problem. Or a medical problem.*”

If a patient’s situation turns unbearable, their general practitioner or the transfer point of the hospital in charge make a call with *Bureau Crisistoewijzing Intramuraal* (BCI, which can be translated to Bureau Crisis allocation Intramural). This agency estimates the situation and the urgency of a crisis intake. After BCI has determined that the situation is unstable enough, the client gets the label *crisis*. This means that the client has to get a place in an intramural institution within 24 hours. To realise the fast placement, BCI is in contact with the

four healthcare organisations (Kalorama, De Waalboog, Zorggroep Maas & Waal and ZZG zorggroep) who participate in the crisis protocol. These healthcare organisations take shifts in receiving crisis clients from the region. When it is ZZG zorggroep's turn, crisis clients are (temporarily) placed at 'Boszicht' when their base principle is somatic and in 'Bosrand' when their base principle is psychic geriatric.

The somatic crisis clients often can return home when they are patched up, but psychic geriatric crisis clients cannot return home most of the time. The psychic geriatric crisis clients need to be placed at one of the Wlz houses to make sure that ZZG zorggroep can admit new crisis clients when it is their shift again. That is the reason why crisis clients claim priority over regular clients. As respondent 3 (director) explains: *"These four [healthcare organisations] have said: 'When there is a crisis, we guarantee admission within 24 hours.' This is a week shift you have, based on contracted beds. And that is why it is ZZG zorggroep's turn more often. [In a year,] it is our turn 20 times. Out of 52 weeks, we have 20 turns. Consequently, another dilemma is that if you have to divide 20 turns over 52 weeks, it is your turn every two to three weeks. So, if you have the turnaround at six weeks, you already know what happens. (...) Then you have to get rid of your people [the crisis clients in the revalidation centre] very quickly if you want to have beds available again when you are on duty again."* This is a clear example of how the crisis clients influence the regular waiting lists of ZZG zorggroep. The majority of the crisis clients ends up at ZZG zorggroep because they have more shifts than the other healthcare organisations in the region.

A result of the crisis clients claiming priority over regular clients is that people sometimes tend to wait until the situation is unbearable. *"What you see is that some people, the professionals or the informal caregivers, know how it works. And they let it become crisis because they know: then you immediately have a place"*. – Respondent 9 (case manager).

Another reason why crisis clients are a huge problem for ZZG zorggroep is the factor BCI. BCI is officially an independent institute, but it houses in the main office of ZZG zorggroep and is under the authority of one of the directors of ZZG zorggroep. The employees who man BCI, are also on the payroll of ZZG zorggroep. Respondent 4 (manager) explains: *"It is harder for ZZG zorggroep [than for the other participating healthcare organisations]. (...) Putting your own organisation under pressure is easier. So, when they, when BCI has a problem, they will call me. And then I will have to do everything needed to solve the problem. (...) We cannot say to our own organisation that we do not have a place. (...) We help the people, but at the same time, we help ourselves from bad to worse."* If BCI was an independent institute, ZZG zorggroep could more easily say no to clients, that way lowering the number of

crisis clients to take care of. As a result, they could accept clients from the regular waiting lists in an earlier stage, instead of offering those places to crisis clients.

In conclusion, the crisis clients claim priority over the regular waiting clients and are therefore increasing the number of regular waiting clients. Because people know that they will be given priority when they are seen as a crisis, some of them deliberately let their circumstances turn into a crisis situation. The last reason why the growing number of crisis clients is such a disturbance for ZZG zorggroep is the factor BCI. When BCI has trouble providing a place for a crisis client within 24 hours, they will always ask help from ZZG zorggroep, even though it is not ZZG zorggroep's shift. This increases the pressure on the waiting lists of ZZG zorggroep.

2) Growing target audience

The growing number of older people in the Netherlands adds pressure to the waiting lists of ZZG zorggroep. According to an analysis made by two respondents (*R3 and R4*), the number of people above 65 is growing (see Document 2). At the moment, about 3 million older people are living in the Netherlands. This number will probably increase to 4.5 million in 2040, which accounts for 25% of the total population. These numbers can also be found in document 9. A higher number of older people equals more pressure on the waiting lists.

Accompanying the growth in the target audience of ZZG zorggroep is the growing life expectancy of people. In 2040, life expectancy will rise to 86 years, compared with 81 years in 2018. This longer life expectancy is due to medical successes and growth in health knowledge.

Multimorbidity is also increasing, which means that patients suffer from multiple health issues. Their request for complex care also increases. Complex care needs are built up from chronic conditions, functional and cognitive impairments, mental health challenges and social vulnerability (Kuluski, Ho, Hans, & La Nelson, 2017). As some respondents mentioned, the specific request for care by people are increasingly more complicated than a few years ago. This does not directly influence the number of people on the waiting lists, but it increases the difficulty to place the client at the right place since their situation is complicated.

A growing target audience puts pressure on the waiting lists because it means the number of prospective clients is growing. In addition, people tend to live longer, which means that the turnover rate declines. Declining health implies a request for more complex care, which demands more from the healthcare organisation in terms of the quality of provided care.

3) People waiting to register

In the interviews, it was often mentioned that many clients seemingly wait to register.



On the one hand, it positively influences the waiting lists because it lowers the number of people on those waiting lists: *“If everyone who does not have a Wlz indication yet is going to register, the waiting lists will become even longer. But on the contrary, this also means that you have more time to accept people.”* – Respondent 6 (waiting list manager). If people wait long to register, there is a higher chance that when they register, they immediately need a place, which is impossible to provide. When people apply earlier, the waiting list managers will have more time to place the patient at the right place when it is the right time. There are multiple reasons why people choose to wait to register. Those reasons can be individual but are sometimes reinforcing each other.

First of all, some people simply do not know that there is the option to live in a protected or sheltered environment. Although this does not often occur, it is a strong indicator that people will wait to register.

Secondly, one of the respondents mentioned that *“it used to be that people could apply for a Wlz indication even though they did not need it yet. Nowadays, it is only possible when you need it, and then you are sometimes too late.”* – Respondent 8 (case manager). This explains in some cases, people who want to register in time are not allowed to because the CIZ declines to give them an indication.

A third reason is a belated recognition of the needed care. This can be blamed on the general practitioner or the district nurses if they fail to recognise a client’s chronic illness in time. ZZG zorggroep learned that general practitioners sometimes lack specific knowledge about older people.

A more frequently occurring reason which was mentioned several times in different interviews is the unequivocal wish to stay at home. A lot of people simply do not want to move, although it might be better for them (and their direct environment) if they would. *“People want to stay at home. That is nice, that is a nice endeavour. But with that, you see that when things are not working out anymore, the distress is acute.”* – Respondent 6 (waiting list manager). In the interviews, it was also added that the government of the Netherlands strives for people to stay at home as long as possible. *“We, the people, the government and the clients, are of the opinion that people have to reside at home longer.”* – Respondent 9 (case manager). As document 12 complements, *“the underlying idea is providing the efficient, the effective and the right qualitative care in, for the client, familiar surroundings. This while the client does not notice anything of the complexity of the cooperation and the financial aspect of the provided care”*.

The last reason why people tend to wait with registration is a financial one. As explained before, the protected and sheltered houses plus related care belongs to the Wlz. A person becomes subject to this law when they have an indication as issued by the CIZ. Before people fall under this law, most of them are covered by the Zorgverzekeringswet (Zvw, Health Insurance Act). All care in this act is free and unlimited, whereas in the Wlz, people have to pay a personal contribution, and the amount of care one can get is limited. People are scared that they do not get as much care as they did before. *“When I did home care, people sometimes needed to have an indication. But they waited with the request because otherwise they had to pay a contribution and were given less care. (...) So yeah, then you are indeed going to wait with an indication request.”* – Respondent 11 (case manager). But as another respondent mentioned, this personal contribution is related with own equity and therefore not something which should deter people. *“So, when you do not get that much home care from your modulair pakket thuis², and you are on a waiting list, that personal contribution is of a minimal amount. You are going to pay a lot from the moment you will live intramural.”* – Respondent 6 (waiting list manager). From the perspective of the client, the decision is an easy one: why pay for something when you can get care for free? An effect of this procrastination is that the cost of care for everyone in the country is going up because *“people are mistakenly making use of the Zvw, since they had to be in the Wlz for a long time”*. – Respondent 7 (waiting list manager).

Concluding, some people intentionally wait to register, while others are obliged to wait because they are not given a Wlz indication yet. The longer people wait, the harder it becomes to place people at the right place at the right time. Mainly because the longer people wait, the higher the chance their situation declines, and they become non-regular clients. Non-regular clients claim priority over regular clients and are thus lengthening the time regular clients have to wait for a place.

4) Decreasing well-being of target audience

The well-being of clients is an essential factor in the healthcare needs of clients. A decrease in well-being is often due to people being lonely. Many older people nowadays are lonely (Hageman, 2016; van Beuningen, Coumans, & Moonen, 2018). Well-being plays a vital role in the need for care: it is proven that when people are not feeling loved or are lonely, they

² Modulair pakket thuis (mpt) is one of the four options a CIZ indication can be redeemed in. There are three options when you stay at home, which are mpt, volledig pakket thuis (vpt) and persoonsgebonden budget (pgb). When the client is going to live intramural, the care one gets is dependent on the care profile the client gets. There are 6 different profiles.

need more care and thus are requesting a place on the waiting lists sooner. Respondent 2 (manager) explains: *“If you have organised well-being, care is only needed years later than now. (...) Care consumption increases when people are lonely. (...) So, it is not only about care: maybe it is more well-being. So, daytime activities like playing games, going for a walk, simply getting attention.”* When people are feeling well, chances that they can live at home safely for a more extended period of time increase drastically, which relieves the pressure on the waiting lists.

In conclusion, the decrease in the well-being of the target audience increases their request for healthcare, which can also be a place on the waiting lists for an intramural living place.

5) Overburdened informal caregivers

The case- and waiting list managers, in particular, pointed out the importance of the informal caregiver. These respondents are in direct contact with the (potential) clients and their informal caregivers and therefore see the critical role these caregivers play. Informal caregivers are the ones who mostly enable a potential Wlz client to live at home as long as possible. They provide day to day-care and also take care of the client’s well-being. If the informal caregiver gets in trouble, the pressure on the waiting lists will increase. *“If you want to make people live at home longer, you have to arrange things better for the informal caregiver”* – Respondent 9 (case manager). This case manager showed with an example that there is the option to unburden the informal caregiver with respite care services, but that there often is not any money left to spend after the client’s daily care is paid. Respite care is substitute care to unburden the informal caregiver, for example, by letting the client stay for a few nights somewhere else, so the informal caregiver can have some days off. Every patient has a specific budget to spend on all care, like intensive home care and day-care. After this care is paid, so little to nothing is left for services like respite care.

So, when the informal caregiver is overburdened, the chances are higher that potential clients end up on the waiting lists for an intramural place.

6) Staff shortage

Health care organisations like ZZG zorggroep are struggling to find enough personnel. As was explained in the group- and in individual interviews, ZZG zorggroep can build new facilities, but does not have the staff to keep the facility up and running. *“We would love to build new facilities, but we do not have the staff to keep at least one bed up and running. So, thinking in terms of capacity expansion is a dead end.”* – Respondent 3 (director). If there were

enough personnel, it would provide ZZG zorggroep at least some room to provide more Wlz houses.

Staff shortage makes it more difficult for ZZG zorggroep to keep their locations operating, let alone build new facilities to deal with the high demand.

7) No regional registration agreements

The growing number of older people who need an intramural living facility is not only a problem for ZZG zorggroep, but also for the other, similar healthcare organisations in the region. The absence of regional agreements on how to deal with these clients can be seen as another external cause of the waiting list problem of ZZG zorggroep.

As explained in the problem section, ZZG zorggroep lacks an overview of their lists. Moreover, ZZG zorggroep does not know whether the client on their list is also on the list of their colleagues. This does not have to be solely negative: *“People are on multiple waiting lists. That gives a distorted image. But on the other hand, it enlarges the chance that you are admitted; it can prevent crises.”* – Respondent 6 (waiting list manager). So, on the one hand, the fact that clients can subscribe to multiple waiting lists is a good thing because it can help to prevent the clients from becoming a crisis client. On the other hand, multiple registrations create a distorted image. *“We have no idea how long the waiting lists in the whole region of Nijmegen actually are. So, the healthcare office is almost distraught, because you have no idea if the people [on the list] are the same [or if they can be counted as unique clients].”* – Respondent 3 (director). The inability to get a clear picture of the entire waiting lists makes it hard to show the gravity of the problem and as such, to know what to do about the problem.

As somewhat introduced in the previous comment, the lack of regional agreements has a negative influence on the ability to do something about regional problems. One of the biggest regional problems is the number of crisis clients. According to several respondents, the crisis clients should be the responsibility of the whole region and not only of the four biggest healthcare providers. ZZG zorggroep cannot decide for the other organisations that they should do their share, because, as respondent 2 (manager) explains: *“We are not their boss. The healthcare office, who is their boss, should just say to them: (...) I want you to make sure that by that date, you are cooperating. (...) We cannot do that because we are colleagues and not their boss.”* In ZZG zorggroep’s view, it would be helpful and fairer if all organisations in the region would cooperate.

Independent Wlz houses, which are not part of an overarching location like ZZG zorggroep, do not play any part in the admission of crisis clients. A complicating factor is that

if the people on the waiting lists of those independent Wlz houses become crisis clients, are being admitted by the healthcare organisations on duty – and not by the independent Wlz house.

In short, the lack of regional registration agreements influences the waiting lists of ZZG zorggroep in three ways. The actual state of all the waiting lists not being transparent makes it challenging to see how long the waiting lists for the whole region are. This has an effect on the ability to see the gravity of a problem, like the crisis client problem. Knowing the gravity of the problem means that there is more urgency to do something about the problem and for instance, activating the whole region to solve the problem. Independent Wlz houses do not participate in the admission of crisis clients, while this would relieve the pressure on ZZG zorggroep's waiting lists.

4.2.2 Internal causes

- 1) Organisational structure
- 2) Inconsistent waiting list management
- 3) Error-prone waiting list management systems
- 4) Division of available capacity
- 5) Lacking knowledge management
- 6) Internal shortcut

1) Organisational structure

As introduced in the case description, ZZG zorggroep had previously divided the area its Wlz houses are located in into three smaller regions: Wijchen-Maas en Waal (WMW), Rijk van Nijmegen (RvN) and Nijmegen. This has its influence on the way case managers do their work. The division is officially waived, but unofficially are the regions still found intact. This became clear from, for example, the general case manager meeting. Not all case managers were present there because *“debating with thirty people is not going to work. So, we have agreed that every region sends two or three representatives.”* – Respondent 8 (case manager). The general case manager meeting is introduced to let case managers learn from each other and also to streamline the execution of their job. Because of the different regions, case managers had different ways of executing their tasks, for example, the way to manage their waiting lists.

The healthcare flows are sometimes really dividing the organisation, as some respondents explain. Although the directors and managers know that it is essential to work together, the reality is often different. Flows are focused on their own activity, but patients switch between flows. The knowledge transfer here, per specific patient, leaves much to desire.

Next to the horizontal division of the organisation in healthcare flows and the horizontal division of the housing flow in 3 regions, there is a vertical division to distinguish. As pictured in the organogram of ZZG zorggroep, Figure 4, ZZG zorggroep has a hierarchical structure.

The hierarchical structure of ZZG zorggroep slows down the decision making with respect to design regulation in the organisation. As one respondent describes: *“The organisation is big, and new plans have to go over many departments. Everyone has to have its say about things. The organisation is too complicated.”* – Respondent 9 (case manager). This was also noticed by the researcher. In the first contact moment, she was told about a certain measure which would be implemented in a month or three after that moment. About six months later she asked about it again, and the answer was that it would be implemented in a week or in a month, but at least soon. In the last interview, it was still not implemented. Most of the time, the reason why it was not implemented yet was that certain people have to look at it.

The division of the organisation into smaller sub-organisations has effect in two ways. First, the knowledge transfer over the flows is questionable and second, the hierarchical structure of the organisation hinders design regulation. This delays the implementation of measures to deal with the growing waiting lists.

2) Inconsistent waiting list management

Some clients wait to register because the possibilities ZZG zorggroep offers are unclear. This confusion is partly caused by the inconsistent waiting list management of ZZG zorggroep. For many clients, it is unclear where to find the information needed, which increases the chance that they will sign up for something while there is something else that may suit them better.

For the (former) region Nijmegen, central admission centre ZZN (which is short for Zorgbemiddeling ZZG zorggroep Nijmegen) manages the waiting lists. In the locations in the other regions, the case manager is responsible for the waiting list management of their location. A consequence of these separate waiting lists can be that *“a client has the interest to live at my location, but also in [two other locations]. (...) This means that the client needs to contact three different persons to get all the needed information.”* – Respondent 8 (case manager). This is found customer unfriendly, especially when taking into account the delicate situation clients and their informal caregivers are often in. *“Nine times out of ten, it is the family who organises [the application], sometimes this is the partner. But the partners are often vulnerable people as well, and they are somewhat older. The people on the waiting list, they often need care 24/7. And those are often people who have a home situation at home which is distorted. So, when*

those people, on top of that, are being sent from pillar to post: that is not customer friendly at all". – Respondent 8 (case manager).

Another result of the lacking admission policy is the circulation of several terms for types of waiting clients throughout the organisation. In the problem section was already described a certain number of labels waiting clients can get. These are the official terms: in interviews were sometimes 'old' terms used, like sleep-waiting and wish-waiting. This may cause problems when employees are not able to communicate effectively with each other because they use different terms. Next to that, it was found that ZZN makes a clear distinction in non-waiting and non-active waiting, but the case managers in the other two regions simple kept one waiting list with all clients. The inconsistent use of terminology does not directly influence the number of clients on the waiting lists, but it has its influence on the transparency of the waiting lists and can cause confusion when exchanging information about the waiting clients.

Last, the inconsistent waiting list management makes it harder to divide the crisis clients over the organisation equally. It seems that the most crisis clients end up in Nijmegen-located houses and the houses in the other two regions are more often 'escaping' the admission of the crisis clients. This because ZZN is situated in the same office as BCI, and therefore, it is easier for BCI to transfer most crisis clients to houses managed by ZZN.

The inconsistent waiting list management of ZZG zorggroep influences both the transparency of the waiting lists as the transparency towards customers and its employees.

3) Error-prone waiting list management systems

When the client from the example of respondent 8 in the previous cause has been placed on all three waiting lists of preference, *"then the three of us (the waiting list managers) have to make sure that this information is assembled at one place in ZZG zorggroep. And well, that is not the case. Because I have my own documents, and they have their documents, and they have their separate documents as well."* – Respondent 8 (case manager). There is no system to allocate all the information in. And because every list is kept track of manually, duplicates have to be checked by hand: *"We, case managers from Rijk van Nijmegen, have every quarter a meeting with only the case managers from RvN. This is to coordinate who is going to the general [case manager] meeting and to see what is happening at the locations in our region. And because we have to do the waiting lists ourselves, we check in these meetings if there are duplicates in the waiting lists."* – Respondent 8 (case manager). This is a task which is error-prone and a waste of valuable time.

Some managers keep track of their waiting list in an excel document, some recently switched to Google documents so they can share it with their colleagues in the region. ZZN has a complex Excel-system which is ‘*very slow and sensitive to mistakes*’ (Respondent 2, manager) and does not allow more than one person at the same time to work in. So, every waiting list manager has their own way of organising the lists, and there is no central admission policy. Next to that, manual waiting lists are error-prone systems and do not facilitate up-to-date overviews. Because of the lacking overview, it is hard to make clear to the healthcare office what the gravity of the situation is: “[*With an overview,*] *we can go to the insurer, the healthcare office, with actual numbers, with the message: we cannot admit more clients because this and that is the situation, and this and that is what we have done about it.*” – Respondent 5 (manager).

All in all, the current systems hamper proper waiting list management because of the error sensitivity and the inability to share lists immediately. An overview is hard to get so duplications can exist and clear insight into the problem and its gravity is hard to obtain.

4) Division of available capacity

One of the respondents stated that the division of available places for psychic geriatric patients in contrast to the available places for somatic patients might be questioned. ZZG zorggroep once made this division, but this may be outdated. “*We have once conceded a certain number of beds for pg and another number of beds for somatic clients, but when I look at the waiting lists, is this still a smart division?*” – Respondent 1 (director). But as a consequence of the obscurity of the waiting lists, an adequate division of offerings is hard to make. This is also a reason to make the waiting lists more comprehensible. A better division of the available capacity might solve some parts of the waiting lists. Because it may be that there are too many pg-oriented beds or vice versa.

An adequate division of available places, based on the demand, will probably influence the waiting lists because it makes it able to place some clients later and some earlier. This may also prevent them from becoming crisis clients because they are placed at the right time.

5) Lacking knowledge management

The organisation of the care flows influences effective knowledge sharing negatively. As the directors and the managers' excerpt, the flows create barriers. It is seen that (crucial) information is not always equally or effectively shared. This is mostly due to the system used in the one flow is different from the system used in the other flow, so knowledge transfers about specific patients are not made easy.

Next to that, the organisational structure of ZZG zorggroep also influences the knowledge of district nurses about the Wlz. They often do not know enough to advise their clients well about the possible options, or do not recognise their clients' chronic care needs in time. There is so much specific knowledge about chronic care and the law and regulation around it, that it is difficult for these professionals (e.g. nurses, case managers) at the working floor to help the client as well as possible. Respondent 5 (manager): *“If you look at what is known about the law and regulations of the office people and the people on the working floor. There is a difference. [...] If you look at what is changed last years in law and regulation... It is impossible for everyone to keep track of that.”* Recognition of the needed care and what to do with that recognition is essential to help people. When clients' needs are recognised in time, they get the needed care sooner, which can stabilise their health situation.

Respondent 1 (director) sums up: *“We have noticed that it is an issue for our professionals, but also in ZZG zorggroep, to not only possess the knowledge but also to apply it.”* If the right knowledge is not in the right place, it is harder to provide the right care to the patients.

6) Internal shortcut

The last internal cause is the clients moving internally from the revalidation centre to Wlz homes. Sometimes, when clients rehabilitate for months or years at this centre, the clients have advised the client to move to a Wlz location. *“There are more and more people visiting the Casualty. And who eventually may come to the Revalidation centre. That is a route where we think of: this is a shortcut [to the waiting lists].”* – Respondent 1 (director). Although this might not happen that often, it is an apparent reason for increasing waiting lists.

4.3 Measures

This section provides an overview of the six measures that ZZG zorggroep designed in order to counter the problems and their effects. In this section, each measure is discussed and analysed in terms of its ability to either remove causes of problems (attenuating) or to cope with the effects of problems (amplifying). The measures are the following:

- 1) Centralising waiting list management
- 2) Digital system for waiting list management
- 3) Wlz at home
- 4) Escalating
- 5) Activate the region in placing crisis clients
- 6) Advanced-care planning

1) Centralising waiting list management

In the interviews and in the documents, centralising the waiting list management was the most frequently mentioned measure. The measure is mostly designed to decrease the workload of the overburdened case manager in WMW and RvN, who has to do the management of the waiting list next to their other tasks.

The measure will be implemented by bringing all the waiting lists of all locations together at one location. This merger will be done in and by the department *Zorgbemiddeling* (Care Mediation Department). Potential clients are directly going to have contact with *Zorgbemiddeling*, which places them on one or two waiting lists of the houses of their preference. *Zorgbemiddeling* makes sure the clients get interim care and keeps in touch with the clients while they are waiting. If a case manager contacts *Zorgbemiddeling* that they have a place available, *Zorgbemiddeling* will check who on the waiting list is eligible for that place. The chosen client is then proposed to the case manager who has the last say in the admission of the client. The said case manager will check if the client fits – from his or her view – with the location. *“The responsibility for the admission stays with the case manager and his or her team. But, when they refuse a client, they have to be able to explain why. [...] This is something we are working on. To get that clear and transparent too.”* – Respondent 5 (manager). Reasons to admit or decline clients are, for example, gender: if there is a house with seven males, they may believe that a woman is not likely to fit well in the group. The health situation of clients can play a role as well; if the case manager thinks that there are already enough complex situations in the prospective group, a client may be refused.

Attenuating or amplifying

Storing all waiting lists at one place is going to provide more insight into the waiting lists. This can reveal that some people are registered for more than two Wlz houses. If so, the entire waiting list will decline, since people will only be allowed to register for a maximum of two waiting lists.

Centralisation of the waiting list management leads to a better and complete overview of the waiting lists. As a result, a better distribution of the available capacity, i.e. the ratio between pg and somatic beds, can be made. It may be found out that the number of pg beds does not fit with the number of pg clients waiting for such a place. A different division of the available places can reduce the waiting times of clients when the capacity is more aligned with the apportioning of the type of clients on the waiting lists. In this way, the measure is amplifying, because it allows for dealing with the waiting lists.

The central waiting list management provides more insight into the availability of places in all Wlz houses of ZZG zorggroep. In this way, an equal division of the crisis clients over the organisation's Wlz houses can be made. This makes the measure amplifying because it enables dealing with the number of crisis clients.

The entry of the department Zorgbemiddeling reduces all waiting list tasks for the case managers in RvN and WMW. This means that the case manager has more time to spend on the clients living at his or her location, which means an increase in the quality of care of ZZG zorggroep. Centralising the waiting list management, therefore, reduces several negatives effects, which gives the measure an amplifying character.

Concluding, the measure is mainly amplifying. The measure eliminates the inconsistency of the waiting list management, which creates a clearer image of the totality and the nature of the waiting lists. This allows for more ways to cope with the long waiting lists, and it reduces some of the negative effects.

2) Digital system for waiting list management

A new digital system will be used to support the centralisation of the waiting list management. The current systems are sensitive to mistakes and not easy to use with multiple actors. Usage of those systems would hinder the appropriate implementation of the centralisation of the waiting lists.

The new system, called 'Entrace', enables simpler and better waiting list management. In the beginning, the system will be only used by ZZN. They are manually transposing their waiting lists from Excel to Entrace. When ZZN is able to use Entrace properly, all other waiting lists from the regions RvN and WMW are transferred to the system as well. This indicates the end of ZZN and the individual waiting list management by RvN and WMW case managers. If a place becomes available, the case managers communicate this via Entrace to the new department Zorgbemiddeling. Zorgbemiddeling can act upon that information and choose and contact the eligible waiting client. The system should help Zorgbemiddeling in choosing the best person for that available place. *"You have the knowledge of what is going on at the locations, the knowledge to compare it and to make the best match between customer and living form. That is possible by common sense and reasoning, but you can also look at a system that provides you with this."* – Respondent 5 (manager).

Attenuating or amplifying

First, the measure mostly impacts the cause 'error-prone waiting list systems'. The new system allows usage of multiple actors at the same time and is more user-friendly than the

currently used systems. It eliminates the risk of errors: *“with single documents – I have experienced this once – you can press a wrong button, and everything is gone. You can call ICT to get it back, but it is... With a system, you cannot do this. You cannot discard a whole system.”* – Respondent 8 (case manager). It is easier to manage the waiting lists, so time is also saved. Therefore, the measure amplifies ways to deal with the problem.

Second, the system will provide more insight into the waiting lists. It allows for real-time information with way less effort than before. *“Certain facts and numbers are conjured up, with one press on a button.”* – Respondent 2 (manager). This is also an amplifying because more insight allows for making a division of the available capacity, which suits better with the demand.

The system also allows for easier placement of the right patient at the right place, because it can support the waiting list manager with specific information about both the client and the location. It may also help to bring more attention to vulnerable clients, so the occurrence of difficult situations among the residents at Wlz locations can be reduced. This is also amplifying because the measure supports ZZG zorggroep to deal with the effects of the waiting lists.

Concluding, the measure is amplifying because it provides easier and better insight into the waiting lists, together with easier management of the lists. The measure does not remove any causes of the long waiting lists, but it provides more opportunities to deal with the waiting lists.

3) Wlz at home

The measure Wlz at home is one of a kind. Basically, it is protected or sheltered living offered at the home of the client. It is designed for *“people who do not (want to) move anywhere. These people really want to stay at home. [...] For those people, we started Wlz at home. That is a Wlz team for people at home. [...] We do everything to make it work, with technology, home automation, indicators when someone tries to run away, we install cameras. We can organise all the attributes and trappings; you can place someone 24/7 next to the client, you can walk in 20 times a day... Well, there are all sorts and variants. [...] The financial part is a topic: is a protected living form cheaper, since Wlz at home requests a lot of care to that one home? Because, in a protected living form, you are so to speak with 24 people and one nurse. And here, it is one on one. But it is really customer-friendly because the client does not have to move. The dementia is, therefore, getting worse less quickly.”* – Respondent 2 (manager). As becomes clear from the quote, the measure may not be the most efficient one,

but it is really client-friendly. The client, who is often vulnerable, does not have to move which can have several positive health implications.

Attenuating or amplifying

The measure partly attenuates the third external cause, people waiting to register. It reduces the number of people waiting to register because they want to stay at home, which in turn reduces the number of people becoming crisis clients. *“With the knowledge of the long waiting lists, it [Wlz at home] is basically prevention of the crisis.”* – Respondent 5 (manager).

The measure reduces the number of people on the waiting list, which declines the waiting time for the client. Shorter waiting time lowers the chance of dying before getting admitted, it constrains the decline of the health and releases pressure on the informal caregiver. This lowers the chance that the regular waiting clients become crisis clients. The measure is, therefore, amplifying because it reduces effects for the client and his informal caregiver.

Besides the effects for the customer, the measure has implications for the employee of ZZG zorggroep. Because the measure allows people with difficult care situations to stay at home, the number of stressful situations the case manager has to deal with can decrease.

The negative effects of ZZG zorggroep as a whole are also reduced, which makes the measure amplifying as well. The vision to place the right patient at the right place is fulfilled since the client can stay at home, their place of preference. This allows other clients to move earlier to a Wlz house, which in turn influences realising the vision of placing the right patient at the right time. The positive health implications as a result of the client not having to move, and of clients receiving the right care in time positively influence the quality of care.

All in all, the measure attenuates because it reduces the number of clients on the waiting lists for Wlz homes. Next to that, it reduces several negative effects, which makes the measure amplifying as well.

4) Escalating

The fourth measure is called ‘escalating’, which means that ZZG zorggroep is going to say ‘no’ to new crisis clients because these clients intensely distort the admission of regular clients. Respondent 2 (manager): *“And then it is interesting what it is going happen next. If we are going to say no, what is going to happen? Things which were previously always solved by us with a lot of effort, by placing people in the hallways, will emerge. [...] We want to reveal now, or clarify, what the problem is, by not solving everyone’s problem. And I think that it is a good thing. But we need to be resolute since we are healthcare people. When we see that the situation for the client is pitiful, we will move heaven and earth to solve the problem. And now,*

[regarding the measure], we should not do that anymore. And then you will see that people have no place to go anymore. And then still, we need to drag our feet. It will be fascinating if we manage to do that, to really be resolute.” ZZG zorggroep wants to reveal more about the roots of the problem ‘crisis clients’ with this measure. By refusing new crisis clients, it hopes to find out what goes wrong where.

However, this measure is not going to be implemented in the near future. One reason is that the measure will probably cause a lot of commotion: *“You see that the urgency (for implementation of the measure) is present, but they (the other nursing and care organisations) do not want the fuss. Because this [measure] gives a lot of press-hassle: it is a realistic scenario that with the first client we refuse, the press will be on the doorstep. That is why the measure is more under than on the table.”* – Respondent 3 (director). Another reason to not implement the measure is ongoing research on crisis clients in the region. This research analyses the current situation and, similar to the measure escalating, it tries to reveal where the roots of the problem are. Therefore, the measure is not going to be implemented yet.

Attenuating or amplifying

If the measure were implemented, it would block the intake of crisis clients. The number of crisis clients will lower and thereby decreasing the pressure on the non-regular waiting lists. In case of a mutation, there is a higher chance that a regular client will get the place instead of a non-regular client because there are fewer crisis clients to take care of. The effect of the long waiting time for regular clients will decrease. The shorter waiting times diminish the chances that their health decreases while they are waiting for the right care and so the chance that they become crisis clients themselves. The chance that people die before they are admitted is also lowered. But, this only holds true for regular waiting clients. Crisis clients’ waiting time increases which increase the chance of declining health while waiting, the pressure on the informal caregivers increases and the chance to die before they are admitted also increases.

With the measure, the number of clients who intentionally wait until they become crisis clients, so they get a place sooner is reduced. This will result in people subscribing for the regular waiting lists earlier on. It would (shortly) lengthen the waiting lists, but it also creates a better overview of the problem. The clients on the waiting lists are monitored by the regular check-ins, which means that there is a higher chance of prevention of difficult situations.

Refusing the crisis clients means that ZZG zorggroep has fewer people to deal with because these clients end up somewhere else. Therefore, the problem shifts to the other parties in the region, who need to think of ways to solve the problem. In the ideal situation, measures

will be designed to remove the reasons why people are becoming crisis clients. This way, the measure can have an attenuating result.

Concluding, the measure – if implemented – is mostly an amplifying measure: the passive block avoids crisis clients entering the waiting lists of ZZG zorggroep. This influences the number of regular clients as well, especially the waiting time of those clients. This will probably be lowered because the crisis clients will not claim priority over regular clients anymore. This shorter waiting period has several positive effects for the regular clients, but logically not for the crisis clients. The measure attenuates one reason why people wait to register because waiting until one is marked as ‘crisis’ to get a place sooner, is not working anymore. The measure can be really attenuating when it leads to the region doing something about the crisis client problem.

5) Activate the region in placing crisis clients

Activating the region in placing crisis clients means that every nursing and care home takes part in the admission of crisis clients. ZZG zorggroep is, with the three other big companies, also taking care of crisis clients who are not on their waiting lists. These clients are for instance on waiting lists of independent Wlz houses in the region. Those houses do not take part in admitting crisis clients according to the crisis protocol.

When a client is on a waiting list, the corresponding organisation is the case holder. This means that the organisation is accountable for all care of that client. That is the reason why ZZG zorggroep is of the opinion that these smaller houses also should admit crisis clients.

Attenuating or amplifying

Participation of the smaller, independent Wlz homes creates more capacity in the region to place crisis clients. The measure is, therefore, amplifying for the region. Relative ZZG zorggroep, the measure is attenuating, because fewer people need a place in the Wlz houses of ZZG zorggroep.

With the measure, the number of crisis clients coming to ZZG zorggroep decreases. This means that if there is a mutation, regular waiting clients can be placed instead of crisis clients. In this way, the measure is also amplifying, because it shortens the waiting time of regular waiting clients. In turn, because of the shorter waiting time, the chance of dying before getting admitted, the shorter stay of clients, the declining health while waiting for a place, the chance of becoming crisis clients themselves and the pressure on the informal caregivers will decline.



Relative to ZZG zorggroep, the measure is partly attenuating. But the measure is mostly amplifying ways to deal with the problem, by creating more capacity and reducing the negative effects.

6) Advanced-care planning

Advanced-care planning aims to identify potential Wlz clients and crisis clients early on. Favourably, this measure is not only carried out on ZZG zorggroep's clients, but on the target audience living in the whole region. Concerning the growing target audience, *"the only thing what really will work is looking at the front."* – Respondent 4 (manager). Potential problems need to be detected early, so there can be taken action to prevent the problem or at least minimise the effects of the problem in time.

Respondent 3 (director): *"Dear home care, [...] scroll with the general practitioner through his list of, in his opinion, vulnerable people. Develop a picture of these people and prevent them from becoming crisis clients."* With correct triage, the needs of the triaged person can be defined. Examples of the identified needs are more specific care, more attention for wellbeing, or some other kind of help which stabilises or even improves the client's health situation.

However, only triage and knowing what the client needs are is not enough. *"What you see is that there are multidisciplinary teams who are going to map the patient perfectly. [...] But then you still have the same possibilities you have now. The whole point is developing possibilities we do not have now. And there we have to anticipate."* – Respondent 4 (manager). The currently available techniques are not enough to keep people at home. It is needed to anticipate the actual needs of the patients. Only this way, healthcare organisations will be able to deal with a large number of older people. In the opinion of this manager (R4), the most critical factors in developing measures are night care, unplannable care, and if the patient is able to ask for help adequately. This is most of all true for pg clients. *"I would not stress research on somatic clients. People are still going to fall, and people will dehydrate by now and then: then they will come to us (Revalidation) and will leave again – all fine. We can achieve there something as well, in the advanced-care planning, and we will do that, but... Dementia... That is coming, and that is something you cannot prevent."* – Respondent 4 (manager). The main focus should be on the pg clients and by investigating what is then possible to help those clients.

Attenuating or amplifying

Advanced-care planning allows for taking specific actions on the needs of clients, like more attention for well-being. Declining well-being can be eliminated, which makes the measure attenuating. It can also influence the pressure on the informal caregiver in a positive way because the advanced-care planning aims to create a total picture of the client and its environment. By looking at the client's needs, this measure can unburden the informal caregiver and thereby reducing the impacts of this cause.

Eliminating causes like declining well-being and overburdened informal caregivers can prevent people from becoming crisis clients. This way, the 'increasing number of crisis clients' is partly attenuated.

The measure also helps to identify people needing chronic or long-term care, or both. This attenuates some reasons why people wait to register. Registering in time has its impact on the vision to place the right person at the right time, and ideally even at the right place. Early registration means that there is more time to find the perfect place at a suitable time. This makes the measure amplifying.

Because the measure tries to develop an image of the target group in an early stage, many causes can be detected. This makes it also easier to anticipate people coming to your organisation. This is amplifying since it allows to anticipate on the prospective clients.

Concluding, the measure is both attenuating and amplifying. It helps to create an image of the (risk) target group, so specific actions can be undertaken to attenuate some of the causes. This result in a decline of the effect, which makes the measure amplifying, next to the allowance for anticipation on prospective clients.

An overview of the measures and their influence on the causes and the effects of the problem is given in Table 6, in which the 'x' indicates a relation. Because of the interdependency and interconnectedness of the causes, the problem and the effects, not all measures are entirely attenuating a cause or are a solely amplifying measure.

	Measures →	1 Centralising waiting list management	2 Digital system	3 Wlz at home	4 Escalating	5 Activate region	6 Advanced-care planning
External causes	1 # of crisis clients			x	x	x	x
	2 ↑ target audience						
	3 Waiting to register			x	x		x
	4 ↓ well-being						x
	5 Overburdened informal caregivers						x
	6 Staff shortage						
	7 No regional agreements					x	x
Internal causes	1 Org. structure						
	2 Inconsistent waiting list management	x					
	3 Error-prone system		x				
	4 Division of capacity	x	x				
	5 Knowledge management						
	6 Internal shortcut						
Effects on client and their environment	1 Long waiting times			x	x	x	x
	2 Chance of dying			x	x	x	x
	3 Shorter stay			x	x	x	x
	4 ↓ health			x	x	x	x
	5 ↑ chance of becoming crisis client			x	x	x	x
	6 ↑ pressure on informal caregiver			x	x	x	x
Effects on employees of ZZG zorggroep	7 Cancelled registrations	x					
	8a More work interim care	x					
	8b More work on check-ins	x					
	9 Less time for current clients	x	x				
	10 Difficult situations		x	x			x
Effects on ZZG as a whole	11 Reduced quality of care	x		x			
	12 Right patient not at the right time		x	x			x
	13 Right patient not at the right place		x	x			x

Table 6 Overview of the impact of the measures on the causes and on the effects of the problem.

4.4 Conclusion

The aim of ZZG zorggroep to place the right patient at the right time in the right place is not being achieved because of the long waiting lists. Remarkable is the number of crisis clients, who are the majority of the non-regular clients. Since non-regular clients have priority over regular waiting clients, they claim the more significant part of the available Wlz places. The long waiting lists have several negative effects for the patient and its environment, for the employee of ZZG zorggroep and ZZG zorggroep as a whole.

From the interviews and the document, several causes of the long waiting lists were obtained. These could be divided into seven external and six internal causes. The most substantial direct reason for the increasing regular waiting lists is the number of crisis clients. Another immense problem is the increasing number of older people. Together with the shortage of staff, which bounds the organisation to a limited amount of capacity, the problematic situation is complete. The internal causes' impact on the long waiting lists is minimal, but they do hinder effective dealing with the waiting lists.

Six measures were designed by ZZG zorggroep to deal with the problem. Five of them are going to be implemented. The measures are analysed on their impact on the causes or the effects of the problem, which determines if the measures are attenuating or amplifying.

The first designed measure is mainly amplifying. This effect is reinforced by the second measure, which supports the implementation of the first measure. Logically, the second measure has an amplifying character as well. Both measures allow for more insight into the problem, so there can be dealt with the problem more effectively. The ability to deal better with the waiting lists is also shown by the impact of the measures on the effects of the problem. The third measure reduces the number of people coming to ZZG zorggroep by letting them stay at home. This makes the measure both attenuating as amplifying because several effects are reduced. The fourth measure, escalating, blocks the entry of crisis clients coming to ZZG zorggroep. If implemented, it would be an amplifying measure with a possible attenuation outcome when it reduces the crisis client problem. Activation of the region is the fifth measure and is also an amplifying measure because it creates ways to deal with the problem. The sixth and last measure, advanced-care planning, is both attenuating as amplifying. It aims to identify (the needs of) clients early on, so there can be dealt with those clients and their needs. This can result in the attenuation of some causes, but it also allows for anticipation of the clients coming to ZZG zorggroep, which makes the measure also amplifying.

Combining all analyses creates an overview, as shown in Table 6. Remarkable is that measures are mainly amplifying. All measures influence some of the negative effects of the problem, and some measures are even removing some of the internal causes. But, as stated earlier, this only amplifies ways to deal with the waiting lists. Effective removal of the external causes, or in other words, attenuation, is hardly being achieved by the measures. Only advanced-care planning is able to reduce some of those external causes. Next to that, the measure ‘escalating’ can result in removing the crisis client problem by the region, but this is not a certainty. The external cause ‘shortage of staff’ is not influenced by any measure, similar to the internal causes ‘organisational structure’, ‘lacking knowledge management’ and ‘internal shortcut’. (Note that the increase of the target audience is something which cannot be changed in an ethically correct way).

To summarise, the measures do influence some of the causes of the long waiting lists but fail to attenuate them effectively. However, the measures help in dealing with the problem, as can be seen by reducing two internal causes and their impact on the effects of the problem. Some of the causes are not even touched upon by the measures, which indicates room for improvement.

4.5 Advice

To effectively cope with the waiting list problem, there are some opportunities left for ZZG zorggroep. Some of these opportunities are dependent on the cooperation of organisations in the region, but others are implicit in the (structural) organisation of ZZG zorggroep.

To begin with, the overburdened case managers were an indicator for the management of ZZG zorggroep that there was something wrong. In an interview with a case manager became apparent that some of the case manager’s tasks could also be done by some of her direct colleagues. The guided tours for new, prospective clients can be held by so-called ‘sterrolhouders’. Because this employee knows more about the location, it is the more designated person to carry out the guided tours. So, the workload of the case manager would not only be reduced, but the tours would be improved as well.

As found in some of the interviews, the vertical organisational structure is unwieldy. The healthcare flows use different digital systems, which does not help in transferring essential knowledge horizontally over the organisation. In order to make the necessary transfers of patients from one flow to the other as smooth as possible, it would be helpful if there would be used one system to follow the client in, or at least make sure that the systems are able to ‘speak’ with each other.

Another cause which was not paid attention to by the designers of the measures is the pressure on the informal caregiver. In the interviews with the case managers, this problem was announced often. Due to the wish of the government to let people stay at home longer, the pressure on the informal caregiver has risen. As seen in the analysis of the Wlz at home measure, letting people stay at home is a great way to release the pressure on the waiting lists. But, as the case managers mentioned: this has to be feasible for the informal caregivers. Making it feasible for the informal caregiver can be achieved by increasing the well-being of clients. As previously cited, when people are happy, they do not need so much attention and care. This is something which may lie in the capabilities of ZZG zorggroep but is also something which ideally should be done with all parties in the region.

Table 6 also learns that none of the measures deals with the shortage of staff. The implementation of some measures can experience problems due to this shortage. Since the cause is a regional and even a national occurring problem, ZZG zorggroep should create new and creative ways to deal with this problem. An option is the employment of students for non-medical care. This or other options can provide ZZG zorggroep more room to deal with the cause.

In some situations, patients refuse the indication of CIZ for long-term or chronic care, or both, because they do not want to move. That is not a problem until the client has to move because their situation changed drastically, and they became crisis clients. As we have seen, the crisis client situation distorts the admission processes of the regular waiting lists drastically. Therefore, some respondents mentioned that it would be helpful if there was created an exception which states that, for example, if the specialist geriatric care and the general practitioner agree that the patient needs to be hospitalised, the client cannot refuse the indication. However, this is not something which ZZG zorggroep can do on its own because it is a legal case, but it can try to place it on the agenda of the healthcare institutions.

Concluding, ZZG zorggroep can do more about the design of its own organisation, which creates some difficulties in dealing with the problem. To really attenuate causes, the effort of other regional parties is needed, because the real reasons of the increasing waiting lists are external reasons and are therefore only to be solved by actions of the whole ecosystem around the client.



This chapter gives a conclusion to the first central research question:

Are the measures, relative to the occurring problems, attenuating or amplifying?

The answer is comprised by answering the sub-questions with the theoretical framework in chapter 2 and the results presented in chapter 4. Attenuating entails decreasing disturbances as much as possible. Disturbances can be described as anything that hinders the realisation of a goal. Amplifying entails increasing the regulatory power, in order to deal with the effects of the disturbances.

Problem and effects

The problem that ZZG zorggroep experiences are the long waiting lists for its protected and sheltered living houses. Two main categories in waiting clients can be distinguished, which are regular and non-regular clients. The non-regular clients claim priority over the regular clients and, therefore, the regular waiting lists are growing more rapidly than the non-regular waiting list. Crisis clients, a type of non-regular clients, seem to claim most of the available places.

The problem has several effects for the client and its environment, for the employee of ZZG zorggroep and the organisation as a whole.

The main effect for the clients is longer waiting times, which has several consequences. The clients have to wait long for the right care, so their health declines, which increases the chance to die before getting admitted. The chances to become crisis clients increase, because of the declining health and the increased pressure on the informal caregiver.

For the employees, the long waiting lists result in more work on the arrangement of interim care and on regular check-ins with the waiting clients. The current way of organising leads to a lot of spent time for the case managers, which means that their time cannot be devoted to the current residents of the locations they are responsible for. Especially when the potential client decides not to enter the waiting lists, the admission process is a loss of valuable time. Because of the long waiting lists, the aim to place the right patient at the right place seems harder to obtain, which can result in stressful situations that require a lot of the case managers.

Because the employees have to spend a lot of their time on the waiting lists, the quality of care is at risk. The vision of ZZG zorggroep to place the right patient at the right time is harder to realise because of the long waiting lists. It is also harder to place the right patient at

the right place because of the long waiting lists; every available place is given to the person waiting the longest, which makes placing the right person in the right group harder.

Causes

The causes are grouped into seven external and six internal causes. The external causes have the most significant impact on the problems; the internal causes mostly hinder efficient dealing with the problem.

The most significant external cause is the growing target audience: in 2040, expected is that the number of older people is going to grow to 25% of the total population (4.5 million people) and these people's life expectancy has risen to 86 years by then. In 2018, the life expectancy was 81 for 3 million people. The well-being of this audience is at the same time decreasing, which has its influence in their request for care. People's care needs become more complicated, which makes organising the right care more difficult. Crisis clients are a more and more occurring phenomenon which increases the pressure on healthcare organisations. Besides these causes concerning the target audience, there is a severe shortage of staff which hampers providing the right care for all these people.

The internal causes mostly result in ambiguities and contradictions concerning the organisation of the waiting lists. Because of the decentral management of the waiting lists, there is hardly an overview of the waiting lists, and also the admission policies seem to differ. This results in customer-unfriendly situations. The organisational structure is partly causing this inconsistency because it sometimes hinders effective decision making and efficient knowledge management.

Measures

From the interviews and documents, six measures to deal with the problems could be abstracted. The first measure is centralising the waiting list management, which means that one department is going to take care of all waiting lists for all Wlz locations. The second measure, a digital system for the waiting list management, supports this measure. The third measure is Wlz at home, which provides long-term or chronic care, or both, at a clients' home. Escalating is the fourth measure and means that new crisis clients will be refused. This measure is not going to be implemented. ZZG zorggroep is going to try to activate the region in placing crisis clients (the fifth measure), in order to create more places in the region to shelter crisis clients. The last measure, advanced-care planning, is aimed at detecting vulnerable clients at an earlier stage.



Attenuating and amplifying measures

The first measure is an amplifying measure because it helps ZZG zorggroep to deal with the long waiting lists and hardly removes any external cause.

The second measure is also an amplifying measure. It helps to create insight into the problem and therefore amplifies the regulatory capacity.

The third measure, Wlz at home, is an attenuating measure because it reduces the number of people entering the waiting lists, by taking care of them in their own homes.

The fourth measure, Escalating, is an amplifying measure because it acts as a passive block. If ZZG zorggroep would choose to implement the measure, it could also have an attenuating effect as it would trigger the region to solve the crisis client problem.

The fifth measure, activating the region in placing crisis clients, is an amplifying measure because it creates a way to deal with the crisis client problem. It can be attenuating if it leads to activation of the region in solving the crisis client problem.

The sixth measure is advanced-care planning. This measure aims at identifying the needs of clients in time, so action can be taken to prevent them from needing a place in a Wlz location or at least help to anticipate on the clients needing a place in a Wlz location. Therefore, the measure is attenuating and amplifying at the same time because it can reduce a share of the clients needing a Wlz place and identifies potential clients early on.



Part II

This part of the research answers the second central research question, which is the following:

What influence do the measures have on the complexity of the organisational structure of ZZG zorggroep?

Chapter 6 gives the theoretical background of the main concepts for this. Chapter 7 presents the methods used to obtain the results. Chapter 8 gives the results and the analysis of these results. A conclusion of both the first and the second central research question is given in chapter 9, together with a discussion of the entire research.



ZZG zorggroep wants to know what the impact of their taken measures is on the complexity of its organisational structure. The second part of this thesis is devoted to this request, which is formulated in the second central research question:

What influence do the measures have on the complexity of the organisational structure of ZZG zorggroep?

Measures are a set of actions to deal with experienced problems (Achterbergh & Vriens, 2019). They are often part of an intervention, which is a deliberate process to deal with an organisational problem. The first part of this thesis examined the characteristics of the measures taken by ZZG zorggroep. Measures can either attenuate the potential of disturbances or add regulatory potential. Therefore, it is possible to deal with (the effects of) disturbances.

To understand how the measures can affect a structure first should be defined what is understood as an organisational structure (section 6.1) and what a complex structure indicates (section 6.2). De Sitter (1994) formulated seven design parameters (section 6.3) to structure organisations and elaborates how these do or do not alter the complexity. As presented in part I, ZZG zorggroep is part of a network. Therefore, the structural implication of networks will be taken into account (section 6.4) since networks implicate extra relations, and extra relations can add complexity (De Sitter, 1994). Section 6.5 provides an overview of how these concepts are used in the following research.

6.1 Organisational structure

Many authors theorised the concept *organisational structure*, but it is impossible to take all these theories into account. Therefore, three distinct structure design theories were selected and compared with the goal of this research in mind. This means that the theories are reviewed on their ability to explain the complexity of an organisational structure and on their ability to explain the relationship between the measures and the complexity of the structure. The theory that serves this goal best is used to define organisational structures.

6.1.1 Perspective

Mintzberg (1980) is known for his famous theory *Structure in 5's*, which states that there are several contingencies which derive from the type of organisation and the environment of the organisation. Based on the contingencies, several parameters can be selected, of which a limited number aims at the interference of the structure. A particular configuration will derive

from the use of those parameters, which may help an organisation to become successful. Mintzberg's theory explains what a structure is, and has some structural indicators, but it does not elaborate on the relations between all those elements. Therefore, the theory is not useful to determine whether the measures of ZZG zorggroep are influencing the complexity of the organisational structures or not.

A more specific theory on how to structure organisations is *lean*. Womack and Jones (2015) define lean as “*an integrated socio-technical system whose main objective is to reduce or minimise variability in cycle time by eliminating waste*”. The authors formatted parameters which state that organisations should 1) specify value for the customer, 2) identify the value stream for each product, 3) create product flow without interruptions, 4) produce only what is pulled by the customers just in time and 5) pursue perfection by complete elimination of waste. This theory is already more relevant for this thesis compared to Mintzberg's theory because of the design precedence rules but does not provide clues that explain how a structure can be more or less complex and is therefore not used in this research.

In the design section of chapter two of this thesis, the cybernetic approach to organisations from Ashby (1965) is discussed. De Sitter (1994) used this theory to work out his Integral Organisational Design (IOR) approach, also called the Modern Dutch Socio-technical (MST) approach. The theory explains how processes and mechanisms of organisations work and also specifies which rules should be applied when (re)designing an organisation (van Eijnatten & van der Zwaan, 1998). De Sitter advocates in his theory that the structure of an organisation should be designed in such a way that it is no source of disturbances itself, and should provide regulatory capacities to deal with possible disturbances. Since the theory explains the complexity of structures and the relationship between the measures and this complexity, it is used to study the influence of the measures of ZZG zorggroep on the complexity of its organisational structure.

6.1.2 Definition

To study the complexity of the organisational structure first has to be defined what the structure of an organisation is. De Sitter (1994) explains the structure of an organisation as a combination of two sub-structures: the production structure and the control structure. The **production structure** is a network of tasks which are all aimed at realising the primary organisational processes. This network is a result of defining and grouping operational transformations into tasks. These tasks are related to orders. Orders are a request for the realisation of some specific desired effect, which can be a product or a service (de Sitter,

Dankbaar, & den Hertog, 1993). The **control structure** is the network of all regulating tasks. The main goal of these tasks is to deal with possible disturbances regarding the primary organisational transformation. An adequate organisational structure is designed by designing the production structure relative to orders and its control structure relative to the production structure (Achterbergh & Vriens, 2009).

Tasks are groupings of either or both operational and regulatory transformations, and a set of tasks assigned to an individual are called a job. The job of the individual often fits in the task of a larger organisational entity, like a team, a department or a business unit. These organisational entities fit into the task of the organisation as a whole (Achterbergh & Vriens, 2009). The organisation itself has its tasks in the goal of society. All the relationships of tasks fitting into overarching tasks are reciprocal.

Concluding, the structure of an organisation is a network of operational and regulatory tasks. A set of tasks comprise a job, which usually fits into the larger organisational entity. The network of operational tasks comprises the production structure of an organisation. The regulatory transformations make up the control structure. What makes these structures complex is explained in the next section.

6.2 Complexity

The structure of an organisation enables the organisation to adapt and realise goals and their accompanying norms (Ashby, 1965). These goals are essential variables which norms have to be kept within specified limits, i.e. the norm value. Anything that challenges the realisation of these goals is what is called complexity. To Ashby, disturbances and regulation make it harder or easier to realise the norms of the essential variables. The probability (P) of disturbances influence the probability of realising the norms of the essential variables. Similarly, better regulation enables the probability that the norms of the essential variables is realised, whereas insufficient regulation capacities negatively influence the probability of the realisation of the norms of the essential variables. The way the organisational structure is built is the primary premise for attenuating disturbances and increasing regulatory potential. Therefore, structures need to be built in such a way, that they are 1) not a source of disturbances themselves (attenuation) and 2) capable of dealing with the potential disturbances by optimising the regulating potential (amplification). See Figure 7 for a schematic representation.

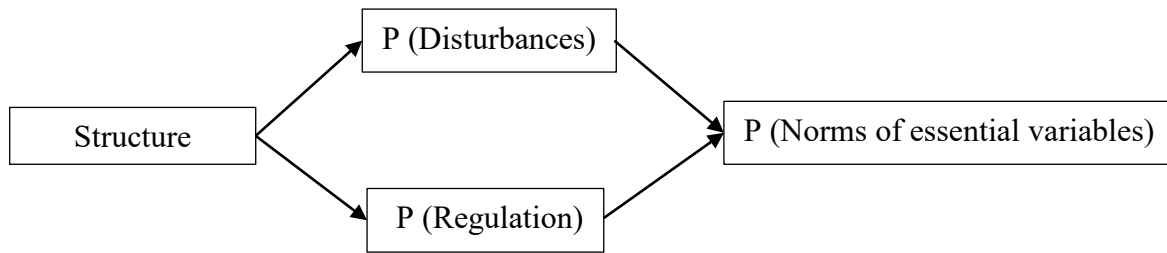


Figure 7 The influence of the structure on the realisation of the norms of the essential variables.

Ad 1. The structure itself should not be a source of disturbances. Stating this raises the question: how can a structure be a source of disturbances? What should be paid attention to when designing the production and control structure? De Sitter (1994) distinguishes four types of sources that influence the probability of disturbances in a structure:

- a) The number of relations between the tasks
- b) The number of interactions over a relation relative to the orders
- c) The predictability and variability of the orders
- d) The specificity of the norms of the orders

For a), every relation the task has with another entity in the network, the potential for disturbances increases. So, a higher number of relations implies a higher probability of disturbances. Also, b) the number of interactions over a relation relative to the orders is a source of disturbances. When the number of interactions (e.g. messages, instructions, material) increases, the potential of disturbances also increases, because every interaction can be a source of disturbances itself. Furthermore, a higher number of interactions implies more content to deal with in one task. When one can c) predict what orders one is going to get and when this is going to happen, it is easier to prepare for it. Therefore, the chance of disturbances will be lower than when the orders are less predictable. With d) the specificity of the norms of the orders is meant that the more precise or narrow the norms of the orders are, the higher the chance of disturbances is (de Sitter, 1994).

Ad 2. Despite all efforts preventing disturbances from happening in the structure, there will always be a potential for disturbances which cannot be eliminated with structural design. The only way to cope with this is to make sure that the employees can manage those disturbances in time. When designing the control structure, it is essential to keep in mind the unity of the source of the disturbances and the regulating potential. Unity can be understood as the closeness of the regulatory potential to the source of the disturbance (de Sitter, den Hertog, & Dankbaar, 1997). When there is less unity, the chances to solve the disturbances are lower, and the complexity is higher. This because of two reasons: first, the chance that the disturbance

diffuses through the system is higher when solving the problem takes a while and second, not being able to reach the disturbance is increasing the potential of damage by the disturbance (de Sitter, 1994; de Sitter et al., 1993; Ingvaldsen & Rolfsen, 2012). Unity can be divided into three categories:

- a) Distance
- b) Time
- c) Social

With a) distance, the actual distance between the source of disturbance and the regulatory capacity is meant. In other words, the closer the regulation possibilities are to the disturbance, the earlier the problem can be solved. Also, the b) time between the recognition of the problem and offering the solution to the problem is of importance. The faster the problem is detected, the faster it can be solved. Vice versa, delayed detection of the problem can result in diffusion of the problem (in the network of connected entities/tasks), which makes it harder to solve. The last category, c) social distance, means that there can be a distance in knowledge, language and experience between people (Achterbergh & Vriens, 2019). When two people have a different perceptive of the same case, solving the problem can be a difficult one and complexity is increased. For example, a teacher who wants to help his/her student has to get permission from the board, but the manager responsible has, based on rules and norms part of his/her task, a different conception of the problem and its priority. If there would be a closer social distance, the chances that problems are solved earlier is higher.

Complexity occurs when the essential variables of an organisation are not realised, which happens when the structure is a source of disturbances itself, or the structure is not able to deal with disturbances in time. The complexity of the structure of ZZG zorggroep after the implementation of the waiting list measures can be determined by empirically defining and analysing the probabilities of disturbances and the unity of the regulation. De Sitter et al. (1997) defined seven design parameters which give a good indication when and how the complexity of a structure increases or decreases.

6.3 Design parameters

The production and control structure should be designed in such a way that they are no source of disturbances themselves and, at the same time, have enough regulatory potential to deal with potential disturbances. To realise this design principle, de Sitter (1994) formulated seven design parameters which capture organisational characteristics that are relevant for attenuation and amplification. The configuration of the parameters gives designers an



indication of the amplification and attenuation of the structure. The seven parameters are not all directed at one aspect but can be divided into three groups. Parameters one to three are focussed on the production structure, number five to seven shows how to design the most efficient control structure. The fourth parameter is devoted to the separation of tasks of the control and product structure. The values of the parameters indicate the complexity of the structure. A high parameter value implies a higher complexity – which implies a higher potential of disturbances. In the following text, the seven parameters and how their value manifests will be explained.

6.3.1 Production structure

Parameter 1: Functional concentration

Functional concentration refers to the grouping and coupling of operational tasks with respect to orders. This parameter has two extremes: all operational tasks of the same type are potentially coupled to all orders (concentration in specialised departments), or operational tasks of a different type are grouped in their corresponding sub-system (de-concentration in parallel flows). This distinction between ‘same’ and ‘different’ refers to the output of the transformation (Achterbergh & Vriens, 2009; de Sitter et al., 1993). To illustrate this with an example, imagine clients in a retirement home who need help in the morning with getting up, getting washed, getting dressed and taking their medicine. Each nurse is responsible for only one of these tasks, and all nurses are coupled to all clients (each client can be seen as one order). The level of functional concentration is high because there is a high number of relations which implies a higher potential of disturbances. The coupling of all tasks to all orders also increases the potential of disturbances because every interaction is a potential source of disturbances itself. This value can be lowered by clustering clients on, for instance, geographical location, and assign a group of nurses to each client group. This is called parallelising and decreases the interactions over the relations, and therefore the potential of disturbances by the structure.

In general: if the functional concentration increases, the complexity of the structure increases, because of the higher number of relations and a higher number of interactions over those relations.

Parameter 2: Differentiation of operational transformations

In operational transformations, three processes can be distinguished: making, preparing and supporting. *Making* activities realise the requested order. Typical *preparation* activities entail purchasing, sales and planning. With *supporting*, all activities indirectly tied to the realisation of the output are meant, like human resources, maintenance and technical services.

The level of differentiation is maximal when making, preparation and supporting activities are grouped into different tasks. The differentiation of activities implies a higher number of relations, which result in a higher probability of disturbances. The level of differentiation is minimal when these three production activities are integrated into tasks: the number of relations and the potential of disturbances is lowered (Achterbergh & Vriens, 2009). Imagine the nurses of the previous example. When a planning department makes their schedule (that indicates which client to visit when and where to help the client), there is a high level of differentiation because there are more relations. When the nurses' tasks also involve doing the planning of their work, the level of differentiation is lower.

In general: if the level of differentiation of operational transformation increases, the complexity of the structure increases, because of the higher number of relations.

Parameter 3: Specialisation of operational transformations

Specialisation means splitting the operational transformation up into short subtasks (Achterbergh & Vriens, 2009). For example, the task 'providing meals to a client' of a nurse can be divided into smaller subtasks, like preparing the food, packing the food and distributing the food. The value of the parameter is maximal when the tasks are all split up into small tasks and assigned to individual workers. Specialisation decreases when the tasks are integrated into one task, and therefore, the complexity because the number of relations is reduced. With many specialised tasks, there are more relations between those tasks and thus is there a higher potential for disturbances (Achterbergh & Vriens, 2009).

In general: if the level of specialisation of operational transformation increases, the complexity of the structure increases, because of the higher number of relations.

6.3.2 Separation of production and control

Parameter 4: Separation between operational and regulatory transformations

When a task is purely operational, and the regulatory activities are placed in another task, the level of separation is maximal (Achterbergh & Vriens, 2009). Separation of the tasks entails an increased number of relations, and an increase in unity between regulation and operational transformations, which means that regulatory potential is decreased. Integration of both the activities to perform the activity, as the regulation capacity of these operational transformations, minimises the number of relations and the unity of regulation. Therefore, the level of separation is minimal. So, when the nurses of our previous examples can deal with all disturbances on their job and do not need others to solve a problem, the level of separation is low or even minimal.



In general: if the level of separation between operational and regulatory transformations increases, the complexity of the structure increases, because of a higher number of relations and a lower unity.

6.3.3 Control structure

Parameter 5: Differentiation of regulatory transformations into aspects

Regulatory transformations are control, design and operational regulation (Ashby, 1965). The level of differentiation is high when they are divided into different tasks. In the case of ZZG zorggroep, a high level of differentiation can occur when the board sets the strategic plan, which is designed by the planning department. The local direction management, in turn, takes care of the operational regulation of the strategic plan. This differentiation of regulatory transformations into aspects results in more relations and a substantial unity between regulation and the source of disturbances. When the control, design and operational regulation are all integrated into one task, the level of differentiation is low. Integration of the activities results in fewer relations and a minimal unity between the problem and regulatory potential. So, the potential for disturbances decreases and the potential for regulation increases (Achterbergh & Vriens, 2009; de Sitter, 1994).

In general: if the level of specialisation of regulatory transformation into aspects increases, the complexity of the structure increases, because of an increased number of relations and less unity.

Parameter 6: Differentiation of regulatory transformations into parts

Operational regulation can be divided into three activities: monitoring, assessing and acting (de Sitter, 1994). *Measuring* defines the actual values of the essential. *Assessing* compares these values with the norm values and when there is a difference, *acting* enters into operation to make sure these values return within their norm values. All these activities should be continuously conducted because disturbances can happen at any time. Integration of these activities into one task shows a low level of differentiation because unity is reduced to a minimal level, and the number of relations is minimised. A maximum level of differentiation occurs when these activities are all assigned to different tasks (Achterbergh & Vriens, 2009; de Sitter, 1994). For ZZG zorggroep, there might be a quality measuring department which reports to the managers of the business units, who in turn assess certain people to act upon the reported disturbance. In this case, there is a more substantial unity between the potential for regulation which has a negative influence on the potential for regulation, and besides that a higher number of relations which alter the potential of disturbances.

In general: if the level of specialisation of regulatory transformation into parts increases, the complexity of the structure increases, because of more relations and less unity.

Parameter 7: Specialisation of regulatory transformations

Similar to the specialisation of operational transformations, specialisation of regulatory transformations entails splitting the activity up into smaller sub-transformations. The more subcategories are formed, the higher the level of specialisation is. As the number of relations increases, together with the unity between the source of the disturbances and the regulation potential, the complexity of the structure increases. For example, the ZZG zorggroep organisation can be divided into, for instance, a quality monitoring department, a communication department, or a personnel department. Every department has relations with other departments which means that more departments (sub-transformations) entail more relationship, which indicates an increased complexity. It can also entail that the unity between the source of the problem and the regulation capacity has decreased, because of a more significant social distance due to knowledge separation.

In general: if the level of specialisation of regulatory transformation increases, the complexity of the structure increases, because of a higher number of relations and less unity.

Comparing all parameters shows that some parameters influence the complexity of the structure because they change the number of relations, the interactions over those relations, or the unity between the regulation and the source of the disturbance. Figure 8 (Achterbergh & Vriens, 2009, p. 275) presents an overview of the effects of low parameter values.

Parameter	Effect	Attenuation/ Amplification
Functional concentration	Decreased variability	Attenuation
Differentiation of operational transformation	Decreased number of relations	Attenuation
Specialization of operation transformation	Decreased number of relations	Attenuation
Separation	Decreased number of relations, increased regulatory potential	Attenuation Amplification
Differentiation of regulatory transformation (strategic / design / operational)	Decreased number of relations, increased regulatory potential	Attenuation Amplification
Differentiation of regulatory transformation (monitoring / assessment / intervention)	Decreased number of relations, increased regulatory potential	Attenuation Amplification
Specialization of regulatory transformation	Decreased number of relations, increased regulatory potential	Attenuation Amplification

Figure 8 Effect of low parameter values. Retrieved from Achterbergh and Vriens (2009, p. 275).

In section 6.2 is explained that the complexity can also be influenced by c) the specificity of the norms of the orders and d) the predictability and variability of the orders. The

structure does not have a direct effect on these kinds of complexity altering factors. Designing parallel streams can tackle a growing number of orders (de Sitter, 1994).

Summarising, the design of the structure affects the structural complexity. By comparing the measures of ZZG zorggroep with the design parameters, the measures' impact on the complexity of the structure can be analysed. Note that in the first part of the thesis became apparent that some of the measures are not aimed at ZZG zorggroep but at the region, or the network. Therefore, the next section explains how the network an organisation is part of can have its influence on the complexity of ZZG zorggroep's structure.

6.4 Network of parties

ZZG zorggroep targets some of its measures to deal with the waiting list problem on its network. From a structure perspective, a network of parties is a division of activities over organisations, just like the structure of an organisation.

Therefore, the design parameters discussed in the previous section likewise apply to a network of parties. Also, the design principle to 1) make sure that the structure is no source of disturbances itself and 2) that the structure can deal with potential disturbances, applies to networks of parties.

Because a network of parties acts like an organisational structure, it also means that potential disturbances origin from a) the number of relations, b) the orders over those relations, c) the variety and variability of the orders and d) the predictability of the orders. Moreover, the unity of regulatory potential applies. With either a greater a) physical distance, b) distance in time, c) social distance, or all three, chances are smaller that the potential problems will be solved. Because of the lower unity, the organisation will experience higher complexity. With higher unity, the complexity will be lower.

In addition to those sources of potential disturbances, there are two other sources of potential disturbances. The first one is the coordination mechanism. Other coordination mechanisms are active and relevant in a network of parties than in a single organisation.

The involved parties can construct arrangements in various forms, like contracts, joint ventures or verbal agreements based on trust. Every coordination mechanism itself is a potential source of disturbances. Imagine a retailer and its supplier: they will probably have a contract in which they have stated, among other things, how many goods the retailer buys from the supplier and what the price for the goods is. Besides this legal contract, they can also have a verbal agreement that they will help each other find new customers. In addition, the coordination mechanism itself, the ability to influence those coordination mechanisms is the



sixth source of potential disturbances; an organisation has way less power in the relationships in an external network as it has in its organisation.

Moreover, relations in a network of parties are mutual or even lopsided, in contrast to the relationship of an employee and his boss. In an organisation, people do their job because they are paid to do so. In a network of organisations or parties, it is (unfortunately) not that simple. Considering the example of the retailer and the supplier: if the retailer is the only one who buys the product of the supplier, the retailer has way more power in the relationship and therefore, the complexity in the network for the supplier increases.

It is essential to keep in mind that this research does not focus on analysing the structural complexity of the network of parties, but the complexity of the structure of ZZG zorggroep. The choices made in the network eventually influence almost every part of the organisation involved. An organisation divides its network task into smaller task over the organisation.

This research will analyse how the measures targeted at the network are going to be embedded in the organisation of ZZG zorggroep and how they will influence the ability to deal with the problems.

6.5 Conclusion

This chapter answered the first two theoretical sub-questions of the second central research question. With these answers, a conceptual framework for answering this second central research question is comprised.

This first question provides an answer to the empirical sub-question 2.3: *What measures did ZZG zorggroep take to deal with the waiting list problems?* For answering this question, the input of part 1 is taken, since the measures are analysed in this part as well.

The empirical sub-question 2.4: *How are the new activities added to the existing organisational structure of ZZG?* can be answered by empirically defining the tasks so that an impression can be created of the structure of an organisation. In this way, we can see how the waiting lists measures influence the complexity of ZZG zorggroep's organisational structure.

1. How is the production structure organised?

- What is the level of functional concentration? Are the activities grouped based on the orders?
- What is the level of differentiation of operational transformations? Are the activities divided into making, preparation and supporting activities or are these activities integrated into tasks?

- What is the level of specialisation of operational transformations? Are the tasks split up into shorter subtasks or integrated into tasks?
2. How is the control structure organised?
 - What is the level of differentiation of regulatory transformations into aspects? Are the transformations divided into control, design and operational regulation tasks?
 - What is the level of differentiation of regulatory transformations into parts? Do the measures divide the operational regulation into the assessing, monitoring, acting activities or are these activities integrated into tasks?
 - What is the level of specialisation of the regulatory transformations? Involve the measures the creation of shorter subtasks?
 3. What is the level of separation between the production and the control structure? Is the unity between those structures large or small?

When trying to track down the complexity of the structure after the implementation of the measures, an image of the structure before the measures took effect should also be constructed. Therefore, it is essential to gain insight into how the work was organised before the measures were implemented. After analysing all measures, it can be determined whether the level of (one or more of) the parameters has risen or not. Consequently, the analysis might give insight into the resulting complexity of the structure. This analysis can lead to the answer to the analytical sub-question 2.5 and central research question 2.

Although this master thesis is divided into two parts, some aspects of the conducted research overlap. This chapter will, therefore, not discuss all the details as done in chapter 3. Consequently, there is no context described in this chapter, since this would exactly be the context description shown in section 3.1. Also, the research method used for this part of the thesis is fundamentally the same as the research strategy followed in the first part.

7.1 Research strategy

The goal of this part of the study is determining the measures' impact on the complexity of the organisational structure. Therefore, this study is intervention-oriented because it is evaluated how the structure has changed or will change because of the waiting list measures. Consequently, the variables *measures* and *structure* are approached by qualitative research because this allows for studying the relations between the variables.

A longitudinal study would be helpful to study the effects of a measure because the data is – in contrast to cross-sectional studies – collected at two or more points in time. In this way, the researcher can track down changes and check the effect of the measure (Sekaran & Bougie, 2016). Unfortunately, this research was limited in time to carry out a longitudinal study. In order to still capture to some extent the situation before and after the implantation of the measures, there was tried to capture how the intervention (would) change(d) the work of the case managers and waiting list managers.

7.2 Data sources and collection

This part of the research used the same data collection as in the previous part of the research, which means that the data collection is as described in section 3.3.

7.2.1 Interviews

As shown in Table 7, every interview provided information about both the measures and the structure. The managers and directors could say more about the measures since they are the designers of those measures. The interviews with the professionals (case managers and waiting list managers) provided the most information for describing the structure because they are directly working in the structure by performing the primary activities of the organisation. Therefore, these people directly experiencing the effects of the measures, like more or less complexity in their work.

7.2.2 Document analysis

Some documents could not be used for this part of the thesis, because they provided only information to describe the variables *problem* or *causes*. Table 7 presents the useful documents to describe the variable *measures* or the variable *structure*.

7.2.3 Data collection overview

	Interviews	Documents
Measures	GI1, GI2, GI3, I1, I2, I3, I4, I5, I6, I7, I8.	D2, D3, D4, D5, D12, D13.
Structure	GI1, GI2, GI3, I1, I2, I3, I4, I5, I6, I7, I8.	D6, D7, D12, D13, D14.

Table 7 Overview of which data source gave input for the description of the variables measures or structure.

7.3 Data analysis

The data analysis followed the same steps as the data analysis described in the first part. The only difference is the use of another code tree, namely the one shown in Appendix 3.

With this code tree, the interviews and documents were analysed on their statements about the measures, the structure and the structural impact of the measure. In the second step were differences and similarities between those data sought, which provided input for the third step: describing both variables. In the fourth step, those variables and the relations between those variables could be analysed.

It was chosen to not operationalise the parameters in the code tree because a structure can be examined in two ways. The first approach looks at the structure from the outside of the organisation and appraises the values of the design parameters at a macro level. The second approach examines the structure at a micro level by taking the viewpoint of the professional and assessing the complexity of the work of that professional. The second way tries to determine the experienced complexity and remains close to the respondent. Therefore, this approach was used to analyse the interviews and documents. However, the parameters were of use to describe the impact of the measures on the complexity of the organisational structure in the last step of the data analysis.

7.4 Research quality

It is not possible to establish the quality of this part of the research for its external validity because the research is intervention-oriented.

The internal validity, however, is established because the research used the theoretical framework as presented in chapter 6 to determine the main concepts of the research. Next to that, the correspondent validity was taken care of by member checking the respondents'

statements and sending the interviews to the respondents so they could provide these transcripts with feedback.

The reliability of this part of the research was established by triangulation as well because the topics were checked in and between data sources. Besides, the controllability was guaranteed by systematically performing the research as described in this chapter and chapter 3.

7.5 Research ethics

The efforts to satisfy the ethical expectations and desires of the respondents were met by giving the respondent information about the purpose of the research and information about the respondents' rights. Permission was asked – and obtained – to record and process the interviews, and the respondents were given the ability to withdraw any statements.

The second central research question aims to reveal the implications of the taken measures on the organisational structure of ZZG zorggroep. To recap, the measures as discussed in chapter 4 are 1) Centralising the waiting list management, implementing a 2) Digital system for the waiting list management, 3) Wlz at home, 4) Escalating, 5) Activate the region in placing crisis clients and 6) Advanced-care planning. ZZG zorggroep is not going to implement the measure ‘escalating’. Therefore, this measure is left out of the analysis. Since the first two measures, 1) Centralisation of the waiting list management and 2) Digital system for the waiting list management are closely connected and reinforcing measures, will they be discussed and analysed together.

Consequently, there are four measures discussed in this chapter: 1) Centralising the waiting list management and implementing a waiting list management system, 2) Wlz at home, 3) Activate the region in placing crisis clients and 4) Advanced-care planning. These measures are discussed with attention for their structural implications. These implications provide the information needed to determine if the measures influence the complexity of the organisational structure. There is no precise information on the structural characteristics and implementation of the last two measures found. Therefore, an analysis of what is likely to happen is made, based on the data collected in the interviews.

8.1 The measures and their structural impact

8.1.1 Centralising the waiting list management and implementing a waiting list management system

The first measure is centralising the waiting list management with the support of the digital system Entrace. A central department, called *Zorgbemiddeling*, is going to take care of all for all intramural Wlz waiting lists. *Intramural* means care provided at locations of ZZG zorggroep and not at the clients’ home, which is the case for district nursing and Wlz at home.

Waiting list managers of *Zorgbemiddeling* will do the intake of new clients via telephone, e-mail or via the website. Most of the time, a phone call is made. In this call, the waiting list manager makes sure the client gets all the information needed and that all information is obtained needed to place the client correctly on a waiting list of preference. So, they do the first triage, inform the client about all possible and suitable options and help with the CIZ indication if necessary, although this is something the client has to do by themselves.

As soon as the intake is done, and the client has a CIZ indication, the client is placed in a maximum of two waiting lists of preference. The waiting list manager makes sure that the client gets interim care while the client is waiting for a place. Every three months, a call is made with (the person responsible for) the client. In this call, there is checked if the interim care is still in line with the clients' needs, and if placement urgency needs to change.

Next to the contact with (prospective) waiting clients, Zorgbemiddeling is frequently in contact with the case managers of the 26 Wlz locations via the system Entrace and over the phone. If a case manager contacts Zorgbemiddeling that they have a place available, Zorgbemiddeling tries to find the most eligible patient in consultation with the case manager. As soon as the fitting client is found, the transfer occurs, and the case manager is going to arrange all the care for the client. There are some plans to provide the case manager with the top 3 waiting clients for his or her location. The said case manager then has to take care of the interim care and the regular check-ins of these clients.

In brief, the measure entails a new department which uses a digital system to manage all (intramural) Wlz waiting lists. It keeps in touch with all the (prospective) waiting clients, case managers of the Wlz locations and with BCI about the placement of crisis clients. The measure is amplifying because it enables dealing with the waiting list problem. With the measure, many relations disappear for the case managers in RvN and WMW. They do not have to have contact with the clients on the waiting lists for their locations anymore, and mutual coordination with the other case managers is not any longer necessary. These relations are replaced with one relationship: the one with Zorgbemiddeling.

In terms of Beer (1979), the measure can be described as function two: coordination. With the measure, coordination of function one is established. Function one describes the primary activities of an organisation, which are for ZZG zorggroep providing health care for older people in an intramural location. Without the measure, the case managers have less time to focus on their primary tasks because the interdependencies between the activities require their time. With the measure, the complexity of their work decreases because they have fewer relationships to maintain and can focus on their case manager task.

Concluding, the measure is simplifying the organisational structure by creating a coordination department, which removes the interdependencies between the primary tasks. The central department uses mutual adjustment to deal with the tasks and does not specify the tasks to specific employees, which keeps the functional concentration low. The measure means more work for the central department because of the multiple relations, but there were no extra tasks

added so the surplus of work can be solved by hiring more employees. On balance, the complexity of the structure is reduced by the introduction of the measure.

8.1.2 Wlz at home

This measure provides chronic and long-term care; the same care a client can get in an intramural location but then offered at the clients' home. A multidisciplinary team of specialists and nurses performs the Wlz at home-care for a defined region. At the moment (June 2019), only one team is active. The other team that had started is cancelled due to staff shortage.

The case manager of the Wlz at home team is a nurse, next to her case manager' tasks. This because the case manager of the pilot believed that she did not saw the clients she was responsible for enough to provide them with the best quality of care. For a case manager of intramural Wlz, it is easier to visit her clients often since they live at the same location. Extramural Wlz means that the care is spread across a neighbourhood, which increases the distances between the clients. By participating as a nurse, the case manager can create an image of the clients herself and is enabled to maintain the quality of care.

The measure is designed as a new structure relative to a new type of order: *living at home with long-term or chronic care, or both*. Therefore, the level of functional concentration is low. If this care were dealt within an existing structure, for example, by the nurses of a Wlz location nearby, the level of functional concentration would be high. By creating a structure in the existing structure relative to the new orders, the measure does not complicate the existing structure.

Based on the clients' needs, some of the provided care will be scheduled while other care will be provided at request. The specialists, like the geriatric specialist and psychologist, have a higher level of specialisation, because of the uniqueness of their capabilities. A nurse can perform all the tasks for a defined group of clients; her tasks are not split up into specialised tasks and coupled to all orders. Therefore, the measure itself is not complex.

The team mutually aligns who is going to provide which care for which client. Its self-management also includes the ability to solve problems when they occur. If something is going wrong, or not as expected, the team is in most cases able to solve the problem itself and does not have to consult several managers before they can act upon the disturbance. That indicates a low level of division of separation between operational and regulatory transformations. Only when there is specific help needed, for example, with ICT related problems, the team is not able to deal with the problem themselves. The ability to deal with most problems itself, without consultation or help, also induces a low level of complexity of the measure itself.

All in all, the way the measure is organised does not complicate the organisational structure of ZZG zorggroep. The parallel organisation of the Wlz at home-team and the self-management of this team keep the levels of the parameters describing the production and the control structure low. Also, the level of separation between the operational and regulatory transformations is low because the team has the power to deal with (most) problems themselves.

8.1.3 Activate the region in placing crisis clients

This measure is aimed at the other elderly care homes in the region that do not take part in solving the crisis client problem. In the opinion of the directors and managers of ZZG zorggroep, these parties should also provide room for admitting crisis clients in 24 hours. Therefore, this measure is network-oriented.

Concerning ZZG zorggroep, the measure is slightly attenuating. Successful execution of the measure would mean that fewer crisis clients would need to stay at ZZG zorggroep because those clients can get a place at other nursing and care homes as well. A part of ZZG zorggroep's primary activities, caretaking of crisis clients, would then be performed outside of the organisation.

The measure does not have any structural implications for ZZG zorggroep, because it only decreases the number of people making use of the primary activities of ZZG zorggroep. Although this releases pressure on the primary activities of ZZG zorggroep, it does not increase or decrease the number of tasks there are needed to perform. Therefore, the measure is neither increasing nor decreasing the complexity of the organisational structure of ZZG zorggroep.

8.1.4 Advanced-care planning

Advanced-care planning is a way to identify the needs of vulnerable clients, so their quality of life can be improved. The measure is not implemented yet, but based on the information gathered in the interviews, an analysis can be made.

An instrument is created to perform triage on clients. *“Easy-care Tos is a dual-stage geriatric screening for frail older people. (...) In my opinion, the general practitioner always has to take the lead. He has a system, the computer, in which all his clients are. In this system, you can see which people are vulnerable. [This is the first stage.] In the second stage, the home carer, the primary care assistant practitioner or whosoever are going to validate that vulnerability. And then it becomes clear if the client needs more attention for well-being, or more nursing care, or, whatever. Like the medicines are not well, or we need to organise meals on wheels or more transport. And that is what the home care should do.”* – Respondent 3

(director). The triage reveals what the client's needs are so that action can be taken upon those needs by the most suitable party, for instance, home care or the caregiver or whoever is suitable for the job.

The general practitioner does the first stage of Easy-care Tos, and the home care of ZZG zorggroep does the second stage. ZZG zorggroep can choose to organise its part of the triage in two distinct ways.

The first way entails the creation of a new team which is going to take care of the triage of the frail people. This specialised triage team should have contact with the general practitioners, with the selected clients and with the home care teams or other parties to gather the information and then establish the right actions based on that information.

The second way entails adding the triage task to the existing set of tasks of the home care nurses. The nurse responsible for that client will then do the triage of the vulnerable client. The teams might need to hire colleagues to deal with this extra task. Home care teams are locally organised and integrally taking care of all activities for a particular client group. General practitioners are most of the time also locally based. Therefore, it is feasible to check the list of frail older people of the general practitioner in that neighbourhood. The actions accruing from the triage can also be undertaken by the home care team or effectively being dealt with by the direct environment of the client.

The first way of organising shows a high level of functional concentration because the triage team is coupled to all orders, e.g. all general practitioners. This way of organising also requires much coordination to manage all the sketched relations, which induces a high level of specialisation of operational transformations.

The second way of organising advanced-care planning is complicating the existing structure a little because an extra team member implies an increase in mutual coordination. However, the level of functional concentration stays low because the orders are still grouped and coupled with locally-based teams. The level of specialisation of operational transformations is still low because there is added a new task to the existing set of tasks of the nurses. These nurses are coupled to a subgroup of clients and carry all needed actions out for their clients. The number of general practitioners which the home care team has to contact is presumably low, because of their clients often live in the same are. Therefore, the number of relations to coordinate hardly increases and the level of functional concentration stays low. The home care team already is in touch with the direct environment of the client, which facilitates performing accruing actions.

Concluding, the first way of organising would complicate the organisational structure, as the high levels of functional concentration and specialisation of operational transformations imply. By the second way of organising the measure, the levels of the parameters are kept low. Low levels of the parameters mean that the organisational structure of ZZG zorggroep is hardly complicated with this way of implementing the measure.

8.2 Conclusion

ZZG zorggroep created several measures to deal with the long waiting lists. Four of them are being or are going to be implemented. How this was done or probably will be done was obtained from the interviews with the directors, the managers, waiting list managers and case managers. This data collection resulted in the analysis of the four measures, i.e. a) Centralising the waiting list management and implementing a digital system for the waiting list management, b) Wlz at home, c) Activating the region in placing crisis clients and d) Advanced-care planning.

The first measure is simplifying the structure, as it reduces the number of interdependencies between case managers. Therefore, centralising of the waiting list management is a function two measure in terms of Beer (1979). Because the Wlz at home team is parallel organised, it does not complicate the organisational structure of ZZG zorggroep. The third measure is aimed at participation of the environment of ZZG zorggroep and attenuates, for ZZG zorggroep, the number of clients using the primary activities of ZZG zorggroep. Therefore, it does not influence the complexity of the structure because it only reduces the number of orders placed. The tasks concerning those orders do not change, so the complexity of the structure does not change because of the measure. The last measure, advanced-care planning, does have an impact on the structure. It can be implemented in two distinct ways, of which the second way keeps the structure simple. If ZZG zorggroep chooses to organise it using an independent triage team, the measure will complicate the structure.

8.3 Advice

For the first measure is the idea to make the case managers responsible for the top three of the waiting list for that location. The case manager is then the one to keep in touch with the clients and to take care of the interim care. It may help to get to know the client and to see if the client fits in the location, but it undermines the effectivity of the first measure, the centralisation of the waiting lists. As explained earlier, it is hard to predict when a place becomes available. Next to that, when a place becomes available, it is never sure if a client

from the top three can get that place, or if there are non-regular waiting clients who may have priority. Also, the people in the top three may be on the waiting lists for other houses, so the top-three requires more mutual coordination – something which just had been solved by the measure. All in all, the measure undermines the effectivity of the measure and creates unnecessary inconsistencies and confusion, which enhances the complexity of the organisational structure.

The measure Wlz at home is implemented for one district. From one interview and a document was learned that an unofficial waiting list for this form of Wlz care exists. Unexpectedly, this waiting list is not managed by the central department Zorgbemiddeling, but by the case manager of this Wlz at home team. This way of organising is undermining the central waiting list management and can cause ambiguities. The advice is to keep the management of the waiting lists with the people whose jobs are devoted to managing these lists.

Chapter 9

Conclusions and discussion

Section 9.1 presents a summary of the conclusion in chapter 5 and gives an answer to the first central research question:

Are the measures, relative to the occurring problems, attenuating or amplifying?

Then, in section 9.2, the conclusion of the second part of this study is presented, which comprises an answer on the second central research question:

What influence do the measures have on the complexity of the organisational structure of ZZG zorggroep?

Both research questions are answered using the theory of de Sitter (1994), who states that a structure designer should follow two principles. Firstly, structures should not be a source of disturbances themselves (attenuation). Secondly, structures should be capable of dealing with potential disturbances by optimising the regulatory potential (amplification).

A discussion on the findings and the limitations of this research is presented in section 9.3.

9.1 Conclusion part I

In the first part of this thesis, it was found that most measures are amplifying because they enhance the regulatory capacity of ZZG zorggroep with the effect of dealing with to deal with the problems. The measures centralising the waiting list management, a digital system for the waiting list management, the escalating measure and the activation of the region in placing crisis clients can all be referred to as amplifying. The measure Wlz at home is the only measure that attenuates one of the causes. The last measure, advanced-care planning, can have both amplifying as attenuating results.

9.2 Conclusion part II

In contrast to the first part, which describes and analyses six measures, describes and analyses the second part only four measures. The measure ‘escalating’ is not going to be implemented, and therefore, it was left out of the analysis. The measures ‘centralising the waiting list management’ and ‘the digital system supporting this waiting list management’ were analysed together, because these measures are implemented together.

The first measure to be analysed was a) Centralising the waiting list management and implementing a waiting list management system. The measure entails the creation of a waiting list management department which will keep track of the waiting lists for all Wlz locations in

a digital system. This measure is a coordination mechanism and reduces a large number of coordination relations between case managers. Therefore, it is simplifying the organisational structure.

The second measure is b) Wlz at home and entails providing long-term or chronic care, or both, at a client's home for a particular region. This measure also does not complicate the structure because it is added as a new structure parallel to the existing organisational structure. This keeps all levels of the parameters describing the production and the control structure low, similar to the level of separation between the production and control structure.

The third analysed measure is c) Activate the region in placing crisis clients and implies that other nursing homes should also take care of the placement of crisis client. It is aimed at the network of ZZG zorggroep. The measure will, with respect to ZZG zorggroep, attenuate some of the crisis clients coming to ZZG zorggroep, which decreases the pressure on the waiting lists. The measure only has an impact on the number of orders but not on the structure which deals with that number of orders. That is, regardless of the measure, staying the same.

The last measure is d) Advanced-care planning and is aimed at identifying vulnerable clients in an early stage. It can help to reduce the number of crisis clients and maybe even the number of clients needing to be admitted in an intramural Wlz home. There are two main options to implement the measure. The advice is to implement the measure as an extra task added to the number of tasks in the home care. This does not increase the number of relations and the extra work to be done can be solved by hiring more employees for each home care team. The level of functional concentration is kept low, as the level of specialisation of operational transformations.

9.3 Discussion

This section discusses this research's outcomes and the research itself. In section 9.3.1, the managerial implications of this thesis are discussed. Section 9.3.2 gives the scientific implications of this research and the suggestions for further research. A discussion on the limitations of the research can be found in section 9.3.3.

9.3.1 Managerial implications

The research results in several findings; for instance, that the measures are hardly complicating the organisational structure. Next to that, the measures are mostly amplifying. It was also noted that not all found causes were touched upon in the design of the measures, which means that there is room for improvement.

To begin with, a cause left out of the intervention design is the shortage of staff. It is, of course, hard to do something about external causes since they are not directly in the company's sphere of influence. Nevertheless, it does not mean that there are no ways to deal with this problem. The organisation could, for example, use students to deal with non-medical care, which would unburden the nurses. Part of this non-medical care can also be well-being, like having some small talk over a cup of tea. Creative approaches to these problems could help create more regulation power and maybe even attenuate some causes.

Well-being plays an essential role in the overall care needs of older people. If their well-being is taken care of, their need for (medical) care declines. A need for care is not always because of the medical part, but sometimes more about the social part: seeing a nurse means social interaction. An improvement in well-being can improve people's health, which dwindles medical care needs. So, more attention to the well-being of patients can lead to a decline in health care requests. The measure advanced-care planning is partly responding to the well-being of clients because it identifies vulnerable clients' needs, but practical ideas or plans on the follow-up of this information are still lacking.

A part of the solution to the growing waiting lists can be found by solving another important cause: the overburdened informal caregiver. They are the essential factor in keeping a patient up and running before the client moves to a Wlz location. When the informal caregiver cannot juggle all things at one anymore, patients become crisis clients. Crisis clients are found to be the biggest disturbers of the regular admission process. Therefore, more actions to keep the informal caregiver also up and running can be of great importance.

9.3.2 Scientific implications

This research has limited scientific implications due to the intervention-oriented character of the research. The study cannot be generalised externally because multiple pieces of research should be conducted and analysed to achieve external generalisability. However, based on managerial implications, a scientific implication is described.

Most of the time, when clients become crisis clients, it is because of the 'collapse' of the patient's informal caregiver. Therefore, actions to sustain these informal caregivers are of great importance. However, the knowledge of the relation between the informal caregiver and the client is limited. How does the informal caregiver exactly relate to the client? How is their relation established? What things does an informal caregiver do for a client, and what tasks can be supported or even taken over by health care institutions? This meaningful relationship could be the scope of further research.

9.3.3 Limitations

In this study, a qualitative approach is used to evaluate 1) if the measures are attenuating or amplifying, or both, and 2) the impact of these measures on the complexity of the organisational structure of ZZG zorggroep. Documents were analysed, and interviews were conducted to collect all the data needed for this research.

Because one researcher performed this research, intersubjectivity could not be obtained. Especially in qualitative studies, (intersubjective) dialogue between researchers reduces the chance that results are coloured by the interpretation of a single researcher (Boeije, 2005). The researcher tried to be as objective as possible, and data triangulation was used to obtain valid information. Multiple documents and interviews were collected, from multiple people in different functions, so various perspectives of the problem could be obtained. On top of that, at least two respondents with the same function were interviewed.

In this research, the diagnosis of the causes of the problem as done by ZZG zorggroep was evaluated. The research was, therefore, limited to the effects and the causes as stated in the documents and by the respondents. It is possible that if this research also entailed the executing of a diagnosis, other or additional causes of the problem were found. Due to limited resources, there was chosen only to evaluate the available information.

A similar thing is valid for the second part of this study, in which the influence of the designed measures on the complexity of the organisational structure was evaluated. Only one of the measures was implemented yet, which means that it was only possible to create a picture of the current situation and not of the situation after the implementation. This implies that the analysis of the influence of the measures on the complexity of the organisational structure could only be done based on the expected results. Performing a longitudinal study means that empirical data would be gathered before, during and after the implementation of the measures. A longitudinal study would provide empirical data closer to practice and would provide a more robust analysis of the measures. So, the analysis could have been more accurate when it was based on empirical data obtained in several moments in time.

References

- Achterbergh, J. M. I. M., & Vriens, D. J. (2009). *Introducing Organizations as Social Systems Conducting Experiments. Organizations*. Berlin, Heidelberg: Springer Berlin Heidelberg.
https://doi.org/10.1007/978-3-642-00110-9_1
- Achterbergh, J. M. I. M., & Vriens, D. J. (2019). *Organizational Development: Designing Episodic Interventions* (1st ed.). Abingdon, Oxon: Routledge.
- Achterbergh, J. M. I. M., Vriens, D. J., & Doorewaard, H. (2009). Het praktijkgerichte diagnostisch onderzoek. In *Voer voor methodologen* (pp. 17–31). The Hague: LEMMA.
- Ashby, W. R. (1965). An Introduction to Cybernetics. *OR*, 16(4), 492.
<https://doi.org/10.2307/3006723>
- Baker, P. M., & Prince, M. J. (1991). Supportive Housing Preferences Among the Elderly. *Journal of Housing For the Elderly*, 7(1), 5–24. https://doi.org/10.1300/J081V07N01_02
- Beer, M., & Nohria, N. (2000). Breaking the Code of Change. *Harvard Business School Press*, 78(3), 133–141.
- Beer, S. (1979). *The heart of enterprise*. John Wiley & Sons.
- Bennis, W. G. (1959). *Leadership theory and administrative behavior: The problem of authority* (Vol. 4). Ardent Media. <https://doi.org/10.2307/2390911>
- van Beuningen, J., Coumans, M., & Moonen, L. (2018). *Het meten van eenzaamheid*. Retrieved from https://www.cbs.nl/-/media/_pdf/2018/39/2018ep44-meten-van-eenzaamheid.pdf
- Bleijenberg, I. (2015). *Kwalitatief onderzoek in organisaties* (2nd ed.). Den Haag: Boom Lemma uitgevers.
- Boeije, H. (2005). *Analyseren in kwalitatief onderzoek: denken en doen*. Boom Onderwijs. Boom Onderwijs.
- Bryman, A. (2012). *Social Research Methods*. Oxford University Press.
- Conger, J. A. (1994). *Spirit at work: Discovering the spirituality in leadership*. San Francisco:

Jossey-Bass.

- Conger, J. A., & Kanungo, R. N. (1987). Toward a Behavioral Theory of Charismatic Leadership in Organizational Settings. *Academy of Management Review*, 12(4), 637–647. <https://doi.org/10.5465/AMR.1987.4306715>
- Creswell, J. W., & Creswell, J. D. (2017). *Research Design: Qualitative, Quantitative, Mixed Methods Approaches*. SAGE Publications. Retrieved from <http://222.255.156.28/handle/123456789/67>
- Davies, H. T., Nutley, S. M., & Mannion, R. (2000). Organisational culture and quality of health care. *BMJ Quality & Safety*, 9(2), 111–119. <https://doi.org/10.1136/qhc.9.2.111>
- Derrett, S., Paul, C., & Morris, J. M. (1999). Waiting for elective surgery: Effects on health-related quality of life. *International Journal for Quality in Health Care*, 11(1), 47–57. <https://doi.org/10.1093/intqhc/11.1.47>
- van Eijnatten, F. M., & van der Zwaan, A. H. (1998). The Dutch IOR Approach to Organizational Design: An Alternative to Business Process Reengineering? *Human Relations*, 51(3), 289–318. <https://doi.org/10.1177/001872679805100305>
- Flick, U. (2012). Methodological Triangulation in Qualitative Research. In *Managing Quality in Qualitative Research* (pp. 55–74). <https://doi.org/10.4135/9781849209441.n5>
- Fogarty, C., & Cronin, P. (2008). Waiting for healthcare: A concept analysis. *Journal of Advanced Nursing*, 61(4), 463–471. <https://doi.org/10.1111/j.1365-2648.2007.04507.x>
- Ghoshal, S., & Bartlett, C. A. (1996). Rebuilding Behavioral Context: A Blueprint for Corporate Renewal. *The Strategic Management of Intellectual Capital*, 141–161. <https://doi.org/10.1016/B978-0-7506-9850-4.50012-9>
- Hageman, A. (2016). Lang leve de zomer. *Nursing*, 22(6), 3–3. <https://doi.org/10.1007/s41193-016-0102-6>
- Ingvaldsen, J. A., & Rolfsen, M. (2012). Autonomous work groups and the challenge of inter-

group coordination. *Human Relations*, 65(7), 861–881.

<https://doi.org/10.1177/0018726712448203>

Kuluski, K., Ho, J. W., Hans, P. K., & La Nelson, M. (2017). Community care for people with complex care needs: Bridging the gap between health and social care. *International Journal of Integrated Care*, 17(4). <https://doi.org/10.5334/ijic.2944>

Midgley, G. (2000). Systemic intervention. In *Systemic Intervention* (pp. 113–133). Springer, Boston, MA. https://doi.org/10.1007/978-1-4615-4201-8_6

Midgley, G. (2006). Systemic intervention for public health. *American Journal of Public Health*, 96(3), 466–472. <https://doi.org/10.2105/AJPH.2005.067660>

Mintzberg, H. (1980). Structure in fives: A Synthesis of the Research on Organization Design. *Management Science*, 26(3), 322–341. <https://doi.org/10.1287/mnsc.26.3.322>

Nationale Zorggids. (2017). Wachttijden in de zorg: in welke sector en waarom? Retrieved June 22, 2018, from <https://www.nationalezorggids.nl/jeugd/zorg/nieuws/39232-wachttijden-in-de-zorg-in-welke-sector-en-waarom.html>

Needleman, C., & Needleman, M. L. (1998). Qualitative Methods for Intervention Research. *American Journal of Industrial Medicine*, 29(4), 329–337. Retrieved from <https://onlinelibrary.wiley.com/doi/pdf/10.1002/%28SICI%291097-0274%28199604%2929%3A4%3C329%3A%3AAID-AJIM10%3E3.0.CO%3B2-3>

Palvannan, R. K., & Teow, K. L. (2012). Queueing for healthcare. *Journal of Medical Systems*, 36(2), 541–547. <https://doi.org/10.1007/s10916-010-9499-7>

Pawson, R., & Tilley, N. (1998). Caring communities, paradigm polemics, design debates. *Evaluation*, 4(1), 73–90. <https://doi.org/10.1177/13563899822208400>

Rahim, A., & Bonoma, T. V. (1979). Managing organizational conflict: a model for diagnosis. *Psychological Reports*, 44(3_suppl), 1323–1344.

Rouwette, E. (2013). Intervention methodology: Research and intervention.



- Saunders, M., Lewis, P., Thornhill, A., Booij, M., & Verckens, J. P. (2011). *Methoden en technieken van onderzoek* (7th ed.). Amsterdam: Pearson Education.
<https://doi.org/10.1017/CBO9781107415324.004>
- Schein, E. H. (1988). *Planning and managing change*. [https://doi.org/10.1016/0308-521X\(87\)90032-1](https://doi.org/10.1016/0308-521X(87)90032-1)
- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach*. Wiley (7th ed.). John Wiley & Sons, Ltd (10.1111).
<https://doi.org/http://as.wiley.com/WileyCDA/WileyTitle/productCd-111994225X.html#>
- de Sitter, L. U. (1994). *Synergetisch produceren*. Uitgeverij Van Gorcum.
- de Sitter, L. U., Dankbaar, B., & den Hertog, J. F. (1993). Designing Simple Organizations and Complex Jobs, (1974), 1–18.
- de Sitter, L. U., den Hertog, J. F., & Dankbaar, B. (1997). From Complex Organizations with Simple Jobs to Simple Organizations with Complex Jobs. *Human Relations*, 50(5), 497–534. <https://doi.org/10.1177/001872679705000503>
- Vennix, J. A. M. (2011). *Theorie en praktijk van empirisch onderzoek*. Pearson/ Custom Publishing.
- Verschuren, P., Doorewaard, H., & Mellion, M. (2010). *Designing a research project: project design*. *Designing a Research Project*. The Hague: Eleven International Publishing.
<https://doi.org/10.1007/s13398-014-0173-7.2>
- Weeda, F. (2019, September 12). Route naar verpleeghuis zit verstopt - NRC. *NRC*. Retrieved from <https://www.nrc.nl/nieuws/2019/09/12/route-naar-verpleeghuiszit-verstopt-a3973245>
- Weick, K. E. (1993). Organizational redesign as improvisation. In *Science* (Vol. 346, p. 379).
<https://doi.org/10.1126/science.162.3859.1243>

Womack, J. P., & Jones, D. T. (2015). *Lean solutions: how companies and customers can create value and wealth together*. Simon and Schuster.

ZZG zorggroep. (n.d.-a). Wijkverpleging. Retrieved March 21, 2019, from <https://www.zgzorggroep.nl/wijkverpleging/>

ZZG zorggroep. (n.d.-b). Wonen met lichamelijke achteruitgang | ZZG zorggroep. Retrieved March 28, 2019, from <https://www.zgzorggroep.nl/wonen-met-zorg/wonen-met-lichamelijke-achteruitgang/>

ZZG zorggroep. (2017). Waardering voor elkaar. Retrieved from <http://www.zgzorggroep.nl/wp-content/uploads/2018/06/Jaarverslag-2017-ZZG-zorggroep.pdf>

ZZG zorggroep. (2018). *Deskundig Liefdevol Helder*. Retrieved from <https://www.zgzorggroep.nl/nieuws/jaarverslag-2018-online/>

Appendix 1 Interview guide group interview 1

Agenda Wachlijstproblematiek masterthesis Lieke

Donderdag 14 maart 2019, 16:00 uur in De Kentering, kamer 3.29

Aanwezig:

Interviewer 1	Student OD&D Radboud Universiteit, schrijft masterscriptie bij ZZG zorggroep
Interviewer 2	Universitair docent Radboud Universiteit, scriptiebegeleider Lieke
Respondent 4	Manager
Respondent 2	Manager
Respondent 3	Directeur
Respondent 1	Directeur

Doel gesprek

Inzicht krijgen in de wachtlijstproblematiek casus van ZZG zorggroep. Ik wil graag weten 1) welke maatregelen er genomen zijn en 2) of deze maatregelen gericht zijn op a) de oorzaken van de wachtlijsten en/of b) omgaan met de gevolgen van deze wachtlijsten.

Met deze informatie zal ik mijn vragenlijsten vormgeven. Deze vragenlijsten zullen me dan (hopelijk) voldoende input geven voor het beantwoorden van de twee onderzoeksvragen.

Casusomschrijving ZZG zorggroep (zoals weergegeven in de thesis)

ZZG zorggroep is een zorginstelling in de omgeving van Nijmegen (Nederland). De organisatie richt zich vooral op gezondheidszorg voor ouderen. Ze bieden daarin drie zorgstromen aan, te weten geriatrische revalidatie en herstelzorg, wijkverpleging en beschermd en beschut wonen. Beschermd wonen is de optie voor ouderen om nog op zichzelf te wonen, maar met beschikbare hulp dichtbij, wanneer nodig. ZZG zorggroep biedt *aantal*** van dit type woningen aan verspreid over *aantal*** locaties. Voor dit type zorg zijn er wachtlijsten, die harder groeien dan ZZG zorggroep aankan. Mensen belanden op de wachtlijst omdat ze zichzelf voor de aangeboden zorgvorm inschrijven, omdat ze geadviseerd zijn (door ZZG zorggroep) om zo te doen, of omdat ze door het ziekenhuis waar ze waren opgenomen doorverwezen zijn.

Dat de groeiende wachtlijsten een probleem begonnen te vormen, werd ontdekt toen (*reden/oorzaak*)...**. ZZG zorggroep probeerde eerst om te gaan met deze wachtlijsten door de lokale case managers het probleem op te laten lossen, maar deze methode bleek inefficiënt en zorgde zelfs voor meer problemen. ZZG zorggroep besloot toen om de oplossing op centraal niveau in de organisatie op te lossen. De dempende dan wel versterkende kwaliteit

van deze maatregelen én hun impact op de organisatiestructuur van ZZG zorggroep worden onderzocht in deze scriptie.

*** informatie nog onbekend, hopelijk wel bekend na dit gesprek.*

Agenda

- 1) Casusbeschrijving wachtlijstproblematiek
 - a. Identiteit ZZG zorggroep
 - i. Drie kernactiviteiten, te weten 1) beschermd en beschut wonen, 2) wijkverpleging en 3) geriatrische revalidatie en herstellzorg.
 - ii. Grootte ZZG zorggroep: 3000 werknemers? 900 vrijwilligers? Hoe veel cliënten bedienen jullie?
 - iii. Wat is beschermd en beschut wonen precies? Hoeveel plekken zijn er? Waar bevinden die locaties zich? Hoeveel mensen maken hier momenteel gebruik van?
- 2) Inzoomend op het probleem
 - a. Hoe werd dit ontdekt?
 - b. Hoe belanden cliënten op de wachtlijst?
 - c. Wie zijn erbij betrokken
 - i. Cliënten (hoeveel? Welke soorten cliënten kun je onderscheiden?)
 - ii. Personen ZZG zorggroep
 - iii. Partijen buiten ZZG zorggroep
- 3) Oplossing
 - a. Welke oorzaken van het probleem zien jullie?
 - b. Welke maatregelen zijn er getroffen/gaan er nog getroffen worden?
- 4) Dataverzameling
 - a. Welke documenten zijn er beschikbaar om te analyseren? (Bijvoorbeeld verslagen van vergaderingen, analyses, projectplannen)
 - b. Welke personen kan ik interviewen? (Bijvoorbeeld projectleiders en casemanagers)

Appendix 2 Code tree Part I

- A) What is the diagnosis?
 - a. Problem
 - i. What is the essential variable
 - 1. norms
 - 2. actual value
 - b. Causes (parameters)
 - i. Direct causes
 - ii. Indirect causes
 - c. Relationship between cause and problem
- B) What is the design?
 - a. Solutions (measures)
 - b. Relationship solution and cause
 - i. Attenuating (solution removes disturbance)
 - ii. Amplifying (solution deals with effects of disturbance)

Appendix 3 Code tree Part II

- A) What are the measures?
- B) Structure
 - a. What does the structure look like?
- C) Does the measure lead to...
 - i. ... A higher or lower probability of disturbances:
 - 1. More or fewer relations
 - 2. More or fewer interactions for each relationship
 - 3. Higher or lower predictability of the orders
 - 4. Higher or lower specificity of the norms of the orders
 - ii. ... A higher or lower unity of production and control, measured on
 - 1. A greater or smaller physical distance
 - 2. An earlier or later detection of the problem (time)
 - 3. A closer or greater social distance