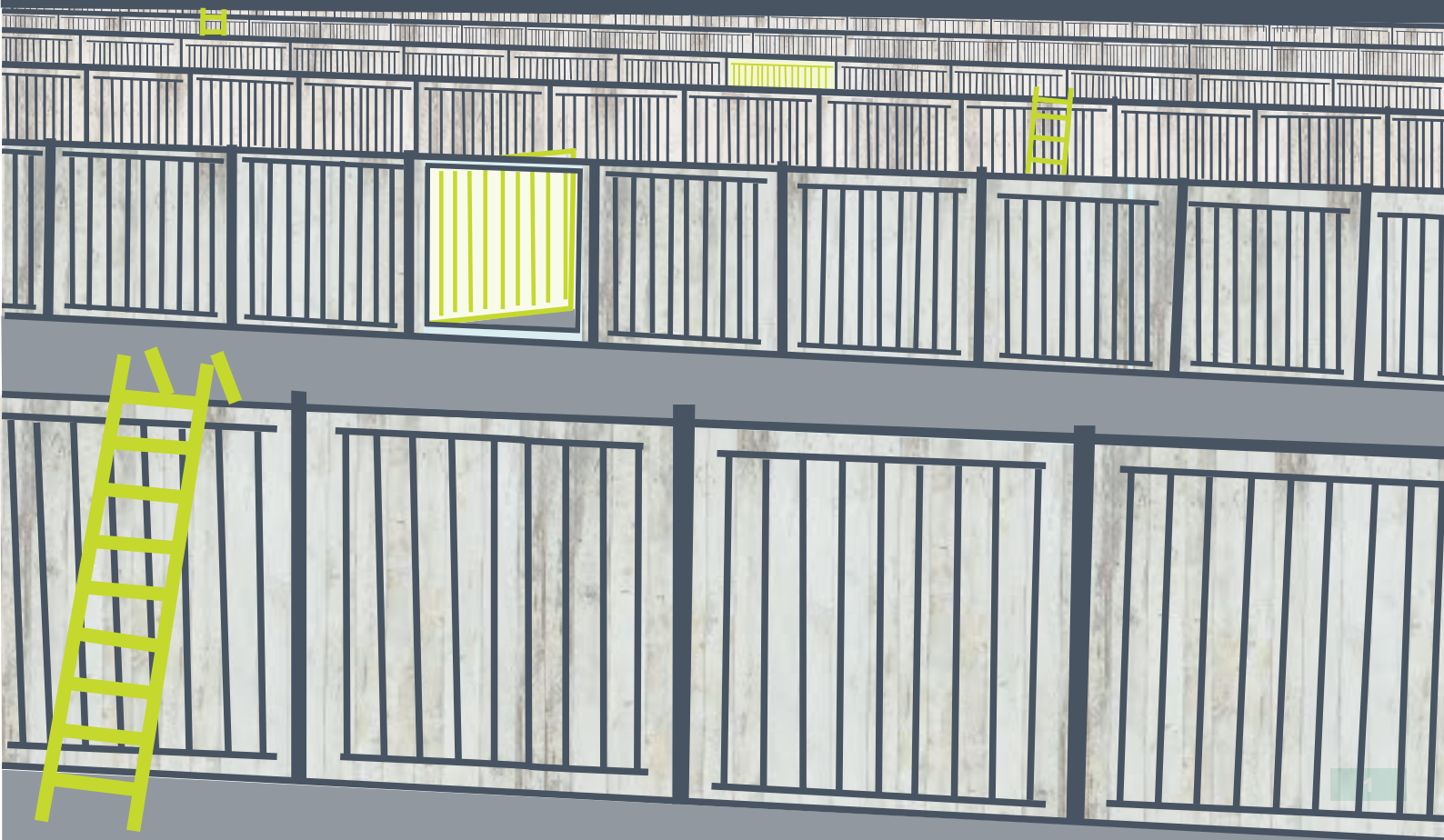HEALTH@BK LAB

BETTER TOGETHER

THE SHORT-TERM CARE CENTRE AS A MEANS FOR INTEGRATED CARE - A QUALITATIVE STUDY

P5 master thesis
Lara Tjoa Li Ling

BETTER TOGETHER:
The short-term care centre as a means for
integrated care - a qualitative study

P5 report
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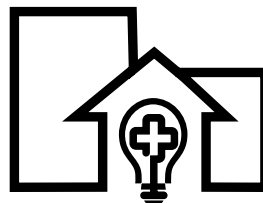ir. J.S.J. Koolwijk
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PREFACE

The healthcare sector is faced with major challenges: the costs of care are rising, large labour shortages are expected and there is a social unrest about the many healthcare reforms and the level of quality. The Dutch population considers the health and elderly care as one of the biggest social problems of today (Sociaal Cultureel Planbureau, 2018). A systemic approach is needed to find solutions for the challenges, and many people busy themselves every day to solve the problems of the healthcare sector.

The complexity and social nature of the healthcare sector attracted me to join the new Health@BK lab, and therefore I decided to become one of those people during the last year of my master at the TU Delft. There are several reasons why I chose the topic of short-term care. The main reason is that I saw an opportunity to use real estate as a means to optimise short-term care. Due to the increasing importance of short term care I saw it as a topic for which advice would be useful for the care provider that I studied.

READING GUIDE

This report consists of a paper in which the graduation research is synthesized. The qualitative data (interviews, summary forms and notes) and more detailed analyses are combined into a portfolio. Part of this research consists of a documentary that I made with the other students of the Cross Domain Health lab, which focused on different user perspectives within the healthcare sector. Another part consists of a board game. Research findings of all the students were combined into a tool that has the potential to stimulate innovation within the health related care and service provider, and create ownership of the ideas for the people who play the game.

ACKNOWLEDGEMENTS

Source: Sociaal Cultureel Planbureau (2018). *Burgerperspectieven 2018|1*

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I. GLOSSARY

A&E	Spoedeisende hulp
Care assistant level 1	Zorghulp (MBO niveau 1)
Care assistant level 2	Helpende (MBO niveau 2)
Care environment	Zorgklimaat
Care home	Verzorgingshuis
Care mediation agency	Zorgbemiddelingsbureau
Care Needs Assessment Centre	Centrum Indicatiestelling Zorg
Care office	Zorgkantoor
District nurse	Wijkverpleegkundige
Geriatric rehabilitation	Geriatrische revalidatiezorg
Geriatrician	Specialist ouderengeneeskunde
Health insurance Act	Zorgverzekeringswet (Zwv)
Health related care and service provider	VVT-organisatie
Home care	Thuiszorg
Intermediate care high complex	Eerstelijnsverblijf hoog complex
Intermediate care low complex	Eerstelijnsverblijf laag complex
Intermediate care palliative	Eerstelijnsverblijf palliatief
Long term care	Langdurige zorg
Long term care Act	Wet langdurige zorg (Wlz)
Nurse with bachelor education	HBO verpleegkundige
Nursing assistant	Verzorgende
Nursing home	Verpleeghuis
Person with a need for care	Persoon met zorgvraag
Rehabilitation care	Revalidatiezorg
Respite care (with overnight stay)	Respijtzorg met logeeropvang
Short term care	Kortdurende zorg
Social Support Act	Wet maatschappelijke ondersteuning (Wmo)
Vocational nurse	MBO verpleegkundige
Wlz crisiscare	Wlz crisisopvang

BETTER TOGETHER: THE SHORT-TERM CARE CENTRE AS A MEANS FOR INTEGRATED CARE - A QUALITATIVE STUDY

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Keywords: health related care and service providers, variations in short term care, qualitative study, interview study, integrated care, healthcare real estate, fragmentation of healthcare

ABSTRACT

Background: The ageing population and healthcare reform leads to a changing demand for short-term care. Health-related care and service providers offer several types of short-term care, but lack a clear vision and associated real estate strategy. Therefore, care processes are not always arranged efficiently, and real estate does not add value to the performance of the organisation. This affects the quality of care that clients receive.

Aim: Gain insight in the care processes of six different types of short-term care in order to establish 1) to what extent integration is possible, 2) to determine the requirements for real estate, and 3) to identify possibilities for organisational change. The intention is to increase insight into the possibilities and prerequisites of optimizing short-term care through a closer alignment with the real estate strategy.

Research question: Which types of short-term care can be combined for integrated care, and what are the requirements for real estate and organisational change?

Methodology: A qualitative interview study within one health-related care and service provider.
Interviews were conducted for six types of short-term care, with respondents holding a management position. In order to add validity, two focus group sessions were held to discuss the findings and identify barriers and prerequisites towards integrated short-term care.

Findings: Short-term care is currently paired with long-term care although the goals and care environments differ substantially. All types of intermediate care, geriatric rehabilitation, respite care and Wlz crisis care can be integrated to some extent from the care and client perspective, along with a general practitioner, day centre and primary care treatment centre. Concentration of services on a location or within a building that is not associated with long term care is recommended. It can result in more efficiency, higher quality care, and better expectation management. The client's preference of care close to home needs to be taken into account as well. Certain barriers on macro, meso and micro level were identified. Respondents indicate that clear communication and creating a physical identity through real estate can solve some of the discussed barriers.

Limitations of the research: Due to the available time for graduation research, one interview for most types of short-term care was conducted, which limits credibility because of a one-sided perspective. Research was conducted within the boundaries of one organisation, limiting the transferability of the data due to the specifics of the organisation and context. Real estate recommendations were made based on the care and client perspectives, but financial feasibility was not considered. This requires further research.

Practical implications: If different types of short-term are combined, care processes can be arranged more efficiently. Also, several real estate decisions have to be made on a portfolio level. Short-term care units at different locations should be concentrated and given a clear identity. Besides this, organisational change is necessary in order to remove the barriers that result in fragmented care. The latter includes clear expectation management, identifying the needs of clients, and stimulating the management level to present ideas through giving them more power.

Scientific relevance: To the researcher's knowledge, no research has been done previously on integration of short-term care that involves the real estate strategy. Requirements for real estate and organisational change based on this integration has therefore also not been studied. This research can thus serve as an exploration into the possibilities regarding the subject.

Originality/value: This research aims to optimize short-term care for (clients of) a health-related care and service provider, through the integration of both the health care and the real estate strategy, as this has the potential to increase efficiency of business operations and quality of care.

1. INTRODUCTION

The healthcare sector can be characterised as a large and dynamic sector with many different domains, each with their own trends and challenges. This research paper focuses on the most important issues regarding short-term care provided in the nursing sector. First, the developments on the national level are discussed, followed by the developments and consequences on the organisational level.

1.1 THE AGEING POPULATION AND HEALTHCARE REFORM LEADS TO A CHANGING DEMAND FOR SHORT TERM CARE

The Dutch population is ageing at such a rate that the over 65 year olds in 2050 are likely to make up 25% of the population, while in 2015 this was just over 16% (CPL, 2015). According to the RIVM (2014), around 32% of Dutch citizens have one or more chronic diseases. This percentage rises to almost 80% for the group aged 75 and over. Around half of this group even has two or more diseases (RIVM, 2014). In 2015, a disproportionate 44% of total health expenditure was accredited to people aged 65 and older (RIVM, 2018). The aging society therefore is one of the factors that is set to increase health expenditure.

In order to keep government spending manageable on the long-term, the welfare state changed into a participation society (Tweede Kamer der Staten-Generaal, 2014). Part of this change stems from the conviction that elderly prefer to age in place; thus creating a separation between care and living (Aedes-Actiz, 2017). This led to a major overhaul of long-term care (Actiz, 2014a): new financing structures were introduced, many care homes had to close, admission requirements for nursing home care became higher, and more care is provided at home (Actiz, 2014b; Regeling Langdurige Zorg, 2014; Aedes-Actiz, 2017). Besides this, policies were introduced to substitute secondary care to primary care to cut costs (Jan van Es Instituut, 2012).

1.2 CONSEQUENCES OF THE CHANGING DEMAND FOR SHORT TERM CARE

Introduction of intermediate care as a new type of short-term care

As one of the respondents of this research explained, people's health ranges within a certain bandwidth in which they are able to function (Appendix F-8). Vulnerable elderly in particular are at risk of (temporarily) falling out of the bandwidth. Since the healthcare reform, some of these people fall into a figurative 'gap' between home, hospital and nursing home care, as they are too unstable to be treated in a home setting, medically too stable for a stay in hospital and not eligble for nursing home care (Melis & Rikkert, 2004). This means that their needs are not met (Pennarts, 2015; Pennarts & Jansma, 2016; Nieuwsuur, 2016). In order to bridge this gap, intermediate care was introduced in 2015 under the Health insurance Act, as a place for people to recover under medical supervision, and go home after stabilizing (Subsidieregeling Eerstelijnsverblijf 2015, 2014).

Pressure on the acute care chain

The past few years have seen an increase in pressure on the acute care chain for two reasons (Van den Brink, 2015; Misérus, 2016; Van Steenbergen, 2017). One of the reasons is that elderly receive more complex care at home than before the healthcare reform. A change in health condition increasingly means that acute care is required (Minkman, Nap, Van der Weegen & Cornelisse, 2017). The second reason is that the introduction of intermediate care did not go smoothly due to frequent changes in funding and regulations (Actiz, 2016). Besides this, new collaborations between hospitals, general practices, care providers and home care needed to be established (Appendix F-4). This resulted in unawareness of available beds and unclearness of the available budget (Lambregtse, 2017; LHV, 2017).

Consequently, a recent report indicates that approximately 480.000 elderly a year unnecessarily end up on A&E and even hospital departments (Fluent, 2017). This puts unnecessary pressure on acute care and limits access for people who do need it (Van den Brink, 2015; Misérus, 2016; Van Steenbergen, 2017). As an overnight stay in hospital costs around five times as much as a stay in a nursing home (Nieuwsuur, 2016), a considerable sum can be saved if intermediate care is used properly.

In addition to unnecessarily high costs, admission to a hospital department has a negative effect on the well-being of the patient. It increases the chance of a loss of function and a lower quality of life after discharge (Buurman & De Rooij, 2015). This is particularly troubling for vulnerable elderly. Therefore, ensuring good access to and high quality of short-term care for elderly is crucial for achieving the goals of the healthcare reform.

1.3 REPOSITIONING OF HEALTH RELATED CARE AND SERVICE PROVIDERS

Health related care and services providers (HRCSP or care providers) offer care for elderly. The care provider that is studied for this research provides services that range from long to short-term care and care at home, and also offers services that focus on well-being. The organisation is present in four municipalities with a total area of over 150 square kilometres. Currently (2018) there are close to 285.000 inhabitants in total, with a potential client group of around 34.700 people aged 65 year and over. This number is set to rise to over 70.000 in 2040 (PBL/CBS, 2016; Allecijfers, 2018). The competition in the region is characterised as less intense than in regions close by due to a lower amount of competitors (Appendix F-7). This could be a reason why the organisation offers a broad range of services instead of being a specialist.

The organisation has grouped all of its services into two divisions. A distinction is made between inpatient versus outpatient services. Inpatient services concern care in facilities for people who no longer have a home address, and outpatient services are focused on care and well-being for elderly in the home situation (Appendix M).

Due to the healthcare reform, care providers have seen that long-term care funding has been cut back.

While in 2014, 10,22 billion euros was available for long-term care, this has decreased to 9,75 billion euros in 2017, notwithstanding the growth of the amount of elderly (Actiz, n.d. I). The financial results of care providers in the country decreased from 3,1% in 2011 (GUPTA, 2012), to -0,2% in 2016 (EY, 2017). Although the care provider of the study booked a result that is slightly above the norm of 1,5% (EY, 2017), the organisation needs to be cautious in regards to their business operations. Real estate plays a large role in these operations, because one of the major consequences of the reform is the increase of vacancy of care and nursing homes. This could potentially lead to 3 million square metres of vacant real estate in the Netherlands, which is more than the national retail vacancy (Brugman, 2015). Around one in four board members of care providers expect that several HRCSP will go bankrupt in the coming years due to real estate costs (Consultancy.nl, 2016).

Since the introduction of intermediate care, care providers have added it to their range of services, which also includes other types of short-term care. Reasons stated are that intermediate care fits well within the services already on offer, and that the expertise of elderly care exists within these organisations (see Appendix F-6). Some respondents also see the need to align their services to the national and political developments to ensure that the organisation meets the current demand (Appendix M).

For the care provider that is studied, three issues have arisen since the introduction of intermediate care signalled the increasing importance of short-term care, which are the result of a lack of vision and policy for short-term care.

First, short-term care has been classified into the outpatient division. It is however provided within

care facilities and not at home. According to some respondents, this leads to the organisation that is studied trying to approach short-term care as if it is long-term care, while that is not the case (Appendix M). Small volumes of sometimes less than five short-term care beds are to some extent integrated with the processes of long-term care. Short-term care clients are treated by personnel from long-term care, and make use of the same facilities as residents. This creates ambiguity for clients, family and healthcare professionals and less than optimal care because professionals with the wrong competences give care that is not focused enough on recovery. Consequently, the division is clear in theory but not the minds of the people.

Secondly and related to the first issue, is that the division between short and long-term care is not physically visible. Short-term care is accommodated in departments within long-term care facilities. This is the case for most organisations, see appendix B. Respondents indicate that choices were based on convenience (reduction of vacancy) rather than strategy (Appendix M). One of the consequences of a lack of clear policy is that real estate currently adds little to no value to the primary process. It is a barrier to an optimal care process instead of a facilitator.

Thirdly, after the introduction of intermediate care it became clear that it is an unprofitable product (Reos, 2017; Actiz, 2016; Vilans, 2018; Appendices F-7;8). This means that organisations, including the studied care provider, need to arrange their services more efficiently in order to at least break even financially.
To conclude, the care provider is lagging behind in the effort to align themselves with the consequences of the changing demographics and healthcare reform. Short-term care processes should be designed differently from long-term care, and a vision on short-term care should be developed in which real estate is strategically used as a resource to add value to the primary process.

1.4 AMBITION TO MINIMISE FRAGMENTATION WITHIN THE HEALTHCARE SECTOR

The reform of long-term care is part of a bigger ambition of ensuring 'the right care at the right place' (Ministerie van VWS, 2018). This effort should lead to a higher quality of care and an integrated approach in a time where chronic diseases are prevalent (Nationale Ombudsman, 2018). Ideally, the disease is no longer put central: now it is about people's ability to function. This encompasses both medical and social aspects (Ministerie van VWS, 2018). This ambition is halted by the current fragmentation of the system. A recent research into the functioning of the reformed healthcare system shows that thinking in domains restricts access to care and results in people not receiving the right care (Nationale Ombudsman, 2018). Confronting fragmentation in order to achieve integrated, patient-centred care is therefore an immense challenge to this day. The concept of integrated care will be discussed in the next chapter along with the different levels and types of fragmentation that exist.

2. BACKGROUND

2.1 INTEGRATED CARE

An agreed upon definition for integrated care does not exist, but there is some consensus that it can be seen as a strategy that can lead to multiple benefits (Shaw, Rosen & Rumboldt, 2011; Valentijn, Schempan, Opheij & Bruijnzeels, 2013; Auschra, 2018). According to Shaw et al (2011), *"the term reflects a concern to improve patient experience and achieve greater efficiency and value from health delivery systems. The aim is to address fragmentation of inpatient services, and enable better coordinated and more continuous care, frequently for an ageing population which has an increasing incidence of chronic disease".* The client population of short-term care consists of vulnerable elderly, many with one or more chronic diseases (CIZ, 2016). Implementing strategies for integrated care could therefore greatly benefit the patients.

Through a literature review based on works from Leutz (1999), Fulop et al (2008), Contandriopoulos et al (2013) and Delnoij et al (2001), Valentijn et al (2013) identified that there are different types of integration. See figure 1. Horizontal integration is achieved when similar levels of care are integrated (Valentijn et al, 2013). This is possible between organisations (inter-organisational) and within an organisation (intra-organisational) (Auschra, 2018). This research mainly focuses on intra-organisational integration, because the care provider that is studied offers all types of short-term care that are being researched.

Valentijn (2013) also discusses vertical integration. This relates to connecting different levels of healthcare services, such as the general practitioner, hospital and nursing home. This is not the main focus of this research, but creating opportunities for vertical integration is considered as beneficial for the quality of care.

As determined, integration has different intentions. For example, integration may be viewed as more coordination of the support functions, or as more coordination
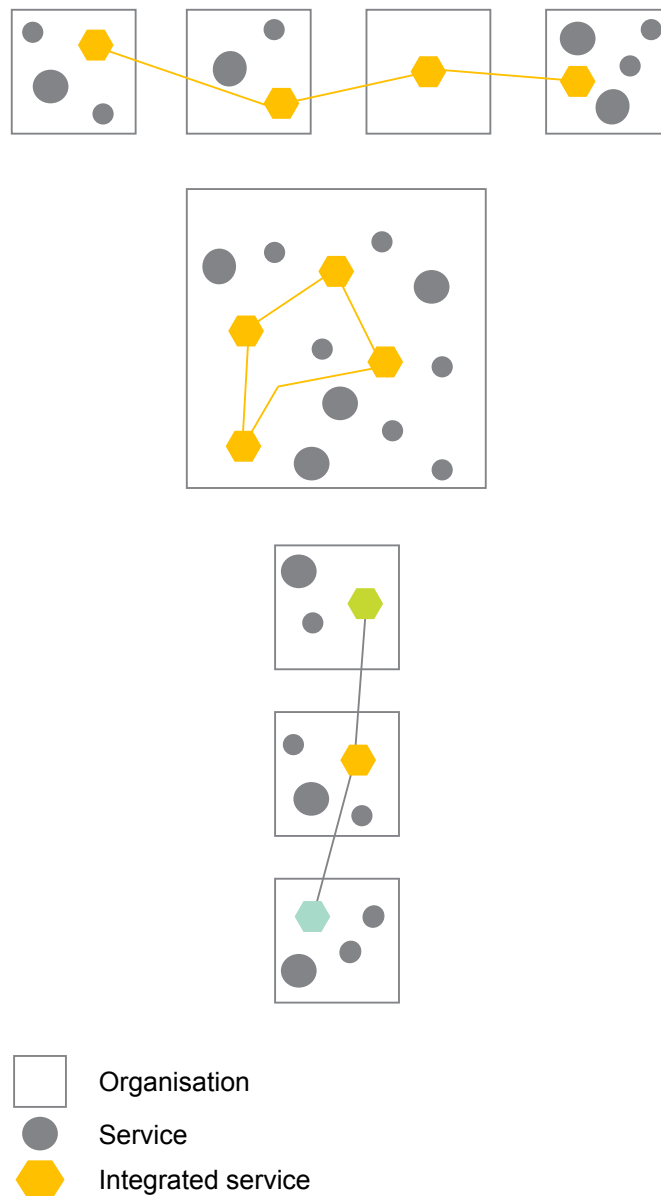

Organisation

Service

Integrated service

Figure 1 | (From top to bottom) Inter-organisational and intra-organisational horizontal integration and vertical integration (own illustrations based on literature from Valentijn et al, 2013)

between professionals (Valentijn et al, 2013). It can also be characterised as real integration (e.g. through sharing real estate and infrastructure), or as virtual integration (e.g. through networks and contracts) (Curry & Ham, 2010).

There are different degrees of integration. Ahgren & Axelsson (2005) propose a continuum of integration based on the work by frequently-cited expert Leutz (1999), see figure 2. Following Ahgren & Axelsson (2015), the different levels can be described as follows:

• Full segregation: the zero point which indicates that there is no integration between services/units;
• Linkage: on this level, communication between organisational units is facilitated. There are clearly assigned responsibilities for each unit or service;
• Coordination in networks: coordination of services and shared information but separate resources;
• Cooperation: units and services are still quite independent, but cooperation is actively pursued;
• Full integration: resources are combined in order to create a new organisation with a comprehensive service that meets the needs of a specific target group.

(Ahgren & Axelsson, 2005 and Leutz, 1999).

Which degree of integration is optimal depends on the differences between the organisational services or units, the contextual factors and the objectives of the organisation (Ahgren & Axelsson, 2005). When services are highly differentiated, full integration should not be aimed for. Ultimately, organisations have to make the choice to which degree integration is possible and desired. This research therefore aims to determine which level of coordination between care services and professionals fits best with six types of short-term care,

and what the effect is on real estate.

Figure 2 | Continuum of integration (reprinted from Ahren & Axelsson, 2005, and Leutz, 1999)

2.2 INFLUENCE OF REAL ESTATE ON INTEGRATED CARE

Integration of care can be viewed as a different way of arranging an organisational process. A care provider is made up of several components: certain customer segments, resources, partners, activities, costs and revenues. A new value proposition based on integrated short-term care for a specific customer segment should be supported by the components of the organisation. There are five resources of an organisation, including real estate (Jensen, 2010 based on Joroff et al, 1993). Therefore, the role that real estate can play in achieving integration should be taken into consideration.

Corporate real estate management literature identifies different ways in which real estate can add value to the organisational performance. The current minister of Health, Welfare and Sport has announced plans that more money should go to providing care, instead of to management and 'expensive buildings' (NOS, 2018). Besides reducing real estate costs, other added values exist as well, such as increased productivity, profitability and gaining a competitive advantage are possible (Jensen, 2010).

Several researchers have attempted to make an overview of the added values of real estate (e.g. Nourse & Roulac, 1993; Krumm, 1999; De Vries et al, 2008).

Van der Zwart & Van der Voordt (2016) have identified nine added values of hospital real estate by interviewing 15 CEO's or real estate managers from 15 different hospitals, see table 1. Although hospitals differ in size and technical demands from nursing and care homes, they are categorised under healthcare real estate and the organisations experience similar tensions between entrepreneurship and the societal responsibility.

Because real estate can add value to the primary process, the values from Van der Zwart & Van der Voordt (2016) are used in this research to ensure that real estate is included in the integration of short-term care.

2.3 FRAGMENTATION

Different types of barriers limit the ability to achieve integrated care (Auschra, 2018). Barriers, according to Auschra (2018), *"represent obstacles or difficulties of a material or an immaterial nature that individuals or organisational actors need to overcome in order to achieve their aims"*. These barriers are elements of the fragmented healthcare system. On a pragmatic note, Kodner & Spreeuwenberg (2002) point out that barriers or gaps are inevitable, but that integration should be seen as *"a step in the process of health systems and healthcare delivery becoming more complete and comprehensive"*.

Although there is no agreed-upon model that shows the different types of fragmentation in the healthcare sector, most of the research identifies barriers on three different levels: macro, meso and micro (e.g. Kodner & Spreeuwenberg, 2002; Valentijn et al, 2013). According to Wollersheim et al (2011), macro entails the national

Real estate Added value	Definition
Reduce costs	To reduce investment costs, capital costs, operational costs, and other real estate related costs
Improve productivity	To increase production with the same amount of resources for production from more effective use of real estate
Increase user satisfaction	To create functional, pleasant and comfortable places for visitors, consumers, and employees
Improve culture	To improve interpersonal relations and communication by real estate
Increase innovation	To stimulate renewal and improvement of primary processes, products, and services by real estate
Support image	To expose corporate objectives by using real estate as an icon for the organisational culture
Improve flexibility	To structure a real estate portfolio in a way that future spatial, technical, organisational and juridical adjustments are possible
Improve financial position	To attract external financing to reinvest in the primary process or to improve the overall financial position of the organisation by regarding real estate as an asset
Controlling risks	To anticipate future real estate-related technical and financial opportunities and risks

Table 1 | Nine added values of hospital real estate. Reprinted from "Adding value by hospital real estate: an exploration of Dutch practice" by J. Van der Zwart & T.J.M. Van der Voordt, 2016, Health Environments Research & Design Journal, p. 52-58.

level, while meso signifies the organisational level. Individuals (professionals and clients) are represented on the micro level.

There is also no agreed upon set of barriers. Therefore, a new model is made based on barriers identified through research by Cochrane et al, 2007, Kodner & Spreeuwenberg, 2007, Valentijn et al, 2013, SIRM, 2016 and Auschra, 2018. A distinction is made between the macro level, which cannot be influenced by a HRCSP alone, versus the meso and micro level, which can be influenced by an organisation. Regulative and funding barriers are assigned to the macro level as those types are determined in a top-down manner while the other barriers, such as real estate and organisational policy, are attributed to the meso and micro level.

What is remarkable is that literature pays little attention to the impact of real estate on fragmentation. Of the five papers above, only Cochrane et al (2007) implicitly acknowledge that real estate is a barrier since they defined a category called 'resource barriers' in their paper. It seems as if real estate is not valued in the literature on fragmentation of care. In this research however, real estate is included in the new model depicted in figure 3.

2.4 BROADENED FOCUS

Four conclusions

At first, this thesis research focused solely on intermediate care. The aim was to determine the influence of spatial clustering on inter-organisational collaboration and feasibility of intermediate care.
After the first couple of interviews focused on this question, four issues became clear which changed the scope of this research. First, it appears that intermediate care is system centred instead of patient centred. Stakeholders involved in intermediate care state that the patient group is extremely diverse and advanced in age, and are hard to put into the predetermined domains (low complex, high complex and palliative) (Appendices F7;8). As a general practitioner states: the division between high complex and low complex is artificial and *"the biggest group fits just in between"* (Vilans, 2018).

The second issue is that intermediate care is not properly used. In a report about intermediate care, the amount of therapy given per day averaged around 20 minutes instead of the permitted 13 minutes (Actiz, 2018). Besides this, intermediate care should be used by people who are able to go home (CIZ, 2016). In practice, only 34% of people who have received high complex intermediate care are able to go home. 43% per cent of people go to a long-term nursing home, and 17% passes away (Vilans, 2018). This clearly shows that either admission requirements should be more strict, or that policymakers have to change the nature of intermediate care. In any case, change can be expected. Aligning real estate solely on a product that is improperly used is not logical, and therefore a broader focus is needed.

A third issue that was encountered is that boundaries between other types of short-term care are blurred. This is widely acknowledged amongst healthcare professionals, insurers and policymakers. A respondent of the research report by Vilans (2018) states that people with very different care demands end up at intermediate care: *"Sometimes the question almost borders on respite care, and on the other hand there are people whose care needs are increasingly complex, or people who need to be diagnosed"*. This is in line with respondents who state that the problem is that intermediate care and geriatric rehabilitation are very much alike, while others believe that intermediate care seems to be the new way to get easier access to a long-term nursing facility (Appendix F-6;7;13, Vilans, 2018). Additionally, some insurers group the budget for intermediate care and geriatric rehabilitation together (see Appendix A), showing that they also do not perceive a huge difference between the types of care.

MACRO	• **Regulative** Government policy: Declarations from the Dutch government about societal plans and intentions Legal frameworks: Legislation from the government and healthcare institutions Policy of insurers: Concerns policy for care under the healthcare insurance act • **Funding** Financing system: Derived from the legal frameworks, regards financial flows from different origins Budgets: Financial plans for certain type(s)/combinations of healthcare Payment type: Different types of payment, such as a fixed amount per day or lump sum • **Historical developments:** path dependent choices on a national level
MESO	• **Organisational** Organisational structure: Divisions inside the organisation Organisational culture: Shared culture of the organisation Organisational policy: Policy of the organisation regarding care and resources Historical developments: Current processes based on historical developments Competition with other HRCSP: Competition as factor of the amount of supply of care • **Resources** Real estate: Owned or rented buildings by the HRCSP viewed from a building/portfolio level Information management: Shared information, ICT, client privacy Workforce: Shortage of skilled workforce, employed workforce Time: Available time of workforce, time pressure • **Healthcare professionals** Collaboration: The way in which professionals do or do not work together with other teams/people
MICRO	• **Healthcare professionals** Teamwork: The way in which professionals do or do not work together with a team Competences: Knowledge, skill, expertise, responsibilities of healthcare professionals Mindset: The established set of attitudes held by a person, their way of thinking Behaviour: The way one usually conducts him/herself at work • **Clients** Characteristics: Such as age, health condition, need for care, home situation Behaviour: The way a client acts Behaviour of relatives: The way the relatives/caregivers of a client act

The last issue that was encountered is that reports state the need for vertical coordination and integration. It appears that this has been achieved through digital (virtual) means. Several regions are establishing a central point that handles transitions between healthcare facilities (ZorgenZ, 2017). It does not involve interventions in the built environment. It is assumed that organisations do not acknowledge the need to invest in real estate because intermediate care is a niche product. The relatively low volume of beds can likely be fitted into the existing portfolio.

For these reasons, it was decided to broaden the focus of this research on multiple types of short-term care, because they show some similarities. The definitions of these types which are provided by the HRCSP that is studied are stated in table 2. Researching the possibilities of horizontal integration of the types of short-term care offer a number of opportunities, such as achieving more efficient integrated patient centred care and strategic repositioning of the HRCSP.

Research into the role of real estate can lead to a strategy in which real estate adds value to the primary process.

2.5 RESEARCH QUESTIONS

Based upon the previous analysis, the following problem statement was formulated:

The healthcare reform led to a growth of short-term care. Although short-term care broadly shared the same goal, care processes are fragmented. Real estate does not add value because the care provider lacks a clear vision and policy. This results in suboptimal care for the clients.

This led to the following aim:

Gain insight into the possibilities and prerequisites of optimizing short-term care processes in order to 1) establish to what extent integration is possible, and 2) to determine a strategy for real estate alignment and 3) define the necessary steps for organisational change.

Type of short term care	Definition
Intermediate care low complex	Short term care for people who need medical care in the vicinity, as given by a general practitioner (CIZ, 2016)
Intermediate care high complex	Short term care for people who need medical care in the vicinity, as given by a geriatrician (CIZ, 2016)
Intermediate care palliative	Care for people with a life expectancy of less than three months, for which care that can be provided at home is not sufficient (CIZ, 2016)
Respite care (with overnight stay)	Care for people in order to temporarily relieve a caregiver of its duties (Mezzo, 2018)
Geriatric rehabilitation	Integrated and multidisciplinary rehabilitation care for frail elderly after a hospital admission (Actiz, n.d. II)
Wlz crisis care (Wlz = Long term care Act)	Acute need for care or support for people living at home, for which action must be taken within 24 to 48 hours (VNG, 2015)

Table 2 | Definitions of the six types of short term care which are in the scope of this research

Left page: Figure 3 | Barriers that lead to fragmentation in the healthcare sector (based on Cochrane et al, 2007, Kodner & Spreeuwenberg, 2007, Valentijn et al, 2013, SIRM, 2016 and Auschra, 2018)

Based on this, the following main research question was formulated:

Which types of short-term care can be combined for integrated care, and what are the requirements for real estate and organisational change?

Three research questions were drawn up in order to find an answer to the main research question, which are as follows:

1. *Which types of short-term care can be combined for integrated care?*

2. *What are the requirements for real estate and location for this combination of short-term care?*

3. *In order to implement this combination of short-term care, to what extent can barriers to integrated care be overcome through organisational change?*

The conceptual model in figure 4 is a schematic representation of the three research questions. The findings will be followed by the conclusion, discussion, reflection and recommendations for further research.
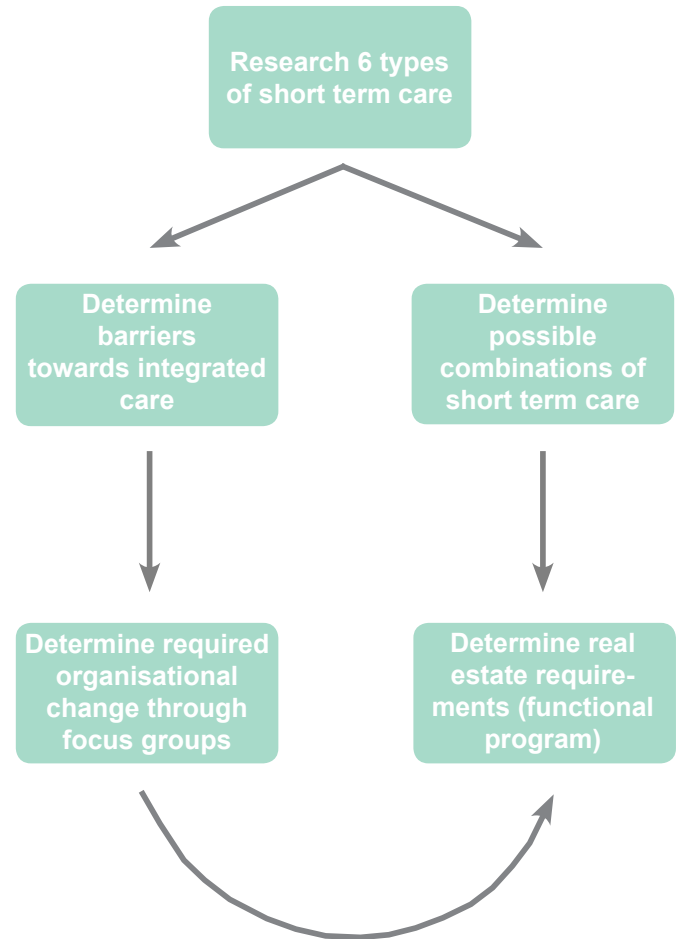

Figure 4 | Conceptual model (own illustration)

3. RESEARCH DESIGN

For this research, qualitative research methods were applied. The main reason was the possibility to gain a deep understanding of the subtleties of the different types of short-term care processes, which would not be possible with a quantitative research method which requires predetermined answers. Data from literature and research reports add to the data obtained through qualitative research, and responses from two focus group sessions add validity to the previously drawn conclusions.

A qualitative interview study set up and focus group method were chosen as the research design (figure 5). Sixteen people were interviewed who all work for one HRCSP. Seven of those were present at the focus group sessions. Besides this, two additional experts were present whose expertise could contribute to validation of the findings, as well as one of the mentors of the researcher.
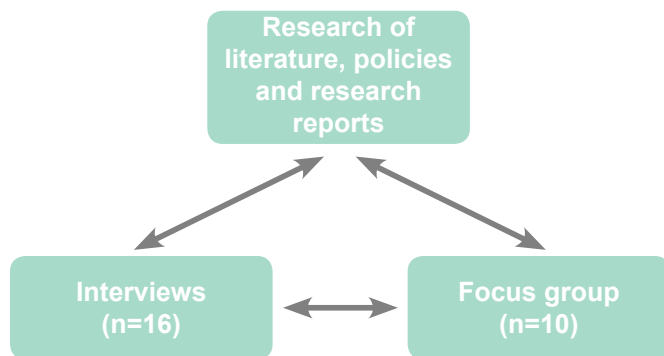
Research of literature, policies and research reports

Interviews (n=16)

Focus group (n=10)

Figure 5 | Types of qualitative data (own illustration)

The care provider was chosen because it is affiliated with the graduation lab and provides all types of short-term care. Because a single organisation was chosen as case study, readers must be aware that findings cannot be generalised beyond the context of this study without careful consideration of the unique situation of another care provider (e.g. market position, organisational structure, contextual factors).

Feedback from focus group respondents however indicate that the developments regarding short-term care are so new and of such influence that the majority of care providers need to reconsider the position of short-term care in their range of services, and map the effects for the organisation and real estate (Appendix M). Therefore, these findings should be viewed as a potential direction that might be taken, not as a perfect-fit solution.

In the first part of the research, interviews regarding the following types of short-term care were conducted:

1. Intermediate care low complex
2. Intermediate care high complex
3. Intermediate care palliative
4. Respite care
5. Geriatric rehabilitation
6. Wlz crisis care

All of these types require an overnight stay in a healthcare facility, and each is characterised by an elderly target population. Hotel care is not covered in this research for two reasons: it is not provided by the HRCSP that is subject of the interview study, and it differs only from respite care due to the focus on the client instead of on the carer (Appendix F-12).

In depth interviews were conducted to gain a good understanding of the care process. An iterative process was followed: respondents and questions were chosen based on previously gathered data and the focus of the research. When the categories of the care paths (see below) became more clear, interview protocols became more structured. See Appendix C1-11.
For each interview, a respondent with a managerial function was chosen, because these people were deemed to have enough knowledge about a certain type of care. At least one interview for each type of care was conducted. More than one interview was not always feasible due to time limits.

Most questions revolved around identifying how the care provider designed the process of a certain type of care. Facts were checked with data from reports and regulation texts.

Each interview was audio recorded. Permission for recording was obtained orally, and each respondent was informed that names are anonymised. Full transcripts were made as soon as possible after each interview, and summary forms which include the initial conclusions, ideas and doubts about answers or behaviour were filled in after each interview session as first step of the analysis.

Transcripts were coded in Atlas.ti based on a list of predetermined codes that together make the care paths (see Appendix G1-6) explicit. Codes were added if they came up during interviews, and were not foreseen at the start.

The first two research questions are answered based on a typical care path for each of the types of short-term care. A care path identifies the most important elements of that type of care, and it makes comparison of the different types of short-term care possible. Therefore, the care path is used as a methodology, and not as a means for communication or process optimisation, which can also be the function of a care path (VanHaecht, 2007). Because one typical care path is drawn up, it must be taken into account that this a representative path and does not consider individual deviations from the average. As each individual is unique, care paths will deviate in reality.

There is no scientific consensus of what the elements of a care path are, but it usually displays a journey of the client and shows who is involved and what type of care is provided. As this research also focuses on the physical aspect of the care path, questions were also asked about requirements for the building or location. This leads to the choice to include five main categories in each care path: 1] General indicators of the particular type of short-term care, 2] Characteristics of people with a need for care, 3] Characteristics of healthcare professionals, 4] Physical requirements, 5] Possibilities for integrated care.

Specific codes for each category are written down in table 3, and were chosen to create a more specific overview of who is involved, how the care process looks, and what the possibilities are concerning real estate and integrated care.

The third research question is answered through coding the interviews using the identified barriers to integrated care (see figure 3). A selection of the barriers that represent macro, organisational vision, behaviour and real estate elements were addressed during a focus group meeting. The barriers themselves, as well as the opportunities to remove them were discussed. The goal of the discussion, beside collection of data, was also to convince the managers of the organisation of the need to create a vision for short-term care, and to make them problem owner of the issue. Besides discussing barriers, the focus group sessions were also used to validate some elements of the introduction and the real estate concept. The focus group protocol can be found in Appendix H, the summaries in Appendix M.

An important issue in qualitative research is the influence of the opinions and position of the researcher. Without acknowledging this, subjectivity is possible. With an education focused on the built environment, the explorations about integration of care are aimed to provide a basis on which a real estate strategy can be designed. However, integration of care also has many other potential benefits, such as the ability to attract new employees more easily. This was not the focus of this research and additional benefits are therefore scarcely considered. Besides this, the researcher presumed that the current situation around short-term care is far from ideal, and wanted to use this thesis as a tool to spur the

organisation into action. Although respondents confirmed that a change is necessary, not everybody agreed that a change in a physical sense is needed. The educational background of the researcher however led to the belief that real estate offers more opportunities than healthcare professionals are aware of.

In order to get people thinking about optimising short-term care, an 'optimal' real estate concept that adds value for the organisation and its clients is presented in this paper.

General indicators of the particular type of short term care	Characteristics of people with a need for care	Characteristics of healthcare professionals	Physical requirements	Possibilities for integrated care
Reason for admission	Designation of person with need for care	Healthcare professionals (38 identified)	Requirements for real estate	Possible combinations of short term care
Goal of admission	Characteristics of person with need for care	Staffing	Requirements for location	Possible combinations of chronic and short term care
Demand for acute care?	Health condition of person with need for care	Type of treatment	Municipality A vs. Municipality B	Vision of the future
Admission	Activities of person (excl. receiving care and treatment)	Intensity of treatment		
Transition to another type of care		Required healthcare environment		
Outflow				
Average duration of stay				
Maximum allowed duration of stay				
Average occupation rate				
Type of financing				
Type of financial payment				

Table 3 | Categories and codes of the care paths (own table)

4. FINDINGS RESEARCH QUESTION 1

4.1 INTRODUCTION

Six typical care paths were created (see Appendices G1-6) in order to answer the first research question: *'Which types of short-term care can be combined for integrated care?'*. Five elements from the categories 'Characteristics of healthcare professionals' and 'Characteristics of clients' from table 3 were used as the criteria that determine the possible integration of care. Four criteria from the first category establish the compatibility from a care perspective, while one criterion from the second category determines the compatibility from a client (user) perspective, see table 4. The meaning of 'compatibility' in this research is that a certain issue is similar or similar enough between at least two types of short-term care, so that some level of integration is possible.

In order to establish the compatibility of care, an inventory of healthcare professionals was made to determine who is involved in the six types of care. This makes it possible to establish which types require the same professionals as others. The idea is that if there are many co-occurrences, the types of care that are given are probably quite similar. This means that if the volume of short-term care types is made big enough, the healthcare professionals no longer need to work on a long-term care department to fill up the hours. They can build up expertise on short-term care. In order to create enough volume, short-term care needs to be physically concentrated.

The criterion 'complexity of care', 'intensity of treatment' and 'care environment' were based on emerging themes from the in-depth interviews. Respondents often made a

Criteria	Definition	Measurement
Compatibility of healthcare professionals	Involvement of healthcare professionals in more than one type of short term care	Number of compatibilities List of most prevalent healthcare professionals
Complexity of required care	Based on extent of self-reliance of person with need of care: intensity of care and degree of required expertise (e.g. nurse versus nursing assistant)	1. Light intensity, care provided by nursing assistant 2. Medium intensity, care provided by nursing assistant 3. Medium intensity, care provided by nurse 4. High intensity, care provided by nurse *(A doctor always has the final responsibility, but is more focused on cure than care and is therefore excluded)*
Intensity of treatment	Treatment such as physiotherapy or occupational therapy	1. No treatment (0 minutes/day) 2. Minimal treatment (average 0-10 min/day) 3. Moderate treatment (average 11-20 min/day) 4. Intensive treatment (average >20 min/day)
Care environment	Type of living environment that is needed to achieve the set targets for a type of short term care	1. Well-being: vacation 2. Well-being: palliative, focus also on family 3. Recovery: therapeutic environment focused on getting better, but less active than category 4 4. Rehabilitation: therapeutic environment with a focus on active rehabilitation, treatment, getting better
Compatibility of clients	Similarity of characteristics of clients (vulnerability, care need)	1. Compatible 0. Not compatible

Table 4 | Five criteria that measure compatibility of types of care (own table)

distinction based on the complexity of care, the intensity of treatment (in minutes per day) and the required care environment. Therefore, these three criteria are used to determine the possible linkage or integration.

For the criterion 'complexity of required care', respondents made a clear distinction between the care provided by a nursing assistant or by a nurse. A nursing assistant is not authorized to perform all technical nursing activities and has less medical knowledge than a nurse. In addition, a nursing assistant usually does not coordinate care, while a nurse does (NCOI, n.d.). Therefore, four categories based on the complexity and distinction between nursing assistant and nurse were determined.

For the criterion 'intensity of treatment', four categories were developed based on the number of minutes a day a client is permitted to be treated. This amount is determined on a macro level, but respondents currently (physically) group clients together that receive the same amount of treatment because they have similar characteristics.

The care environment was something that every respondent found very important to get right, and something that created the biggest difference between the types of short-term care. Respondents claim that all six short-term care types have a unique care environment. However, four categories were chosen for the reason that three of the six care environments have an overall goal of recovery. The type of injury or disease defines what type of recovery is needed (e.g. for Wlz crisis care a recovery from a crisis, for intermediate care low complex recovery from a simple condition). The type of recovery is usually related to the type of care, but it differs on an individual level. Therefore, a broader definition of recovery was maintained in this research.

The fifth criterion is the characteristics of clients. Respondents have indicated that clients have very different needs ranging from social, physical and psychogeriatric care, and every possible combination in between. This research therefore generalises clients into six client groups based on the type of short-term care they need (e.g. geriatric rehabilitation clients, crisis care clients).

4.2 COMPATIBILITY FROM A CARE PERSPECTIVE

Compatibility of healthcare professionals

During the interviews, respondents were asked to identify which stakeholders are involved for a certain type of short-term care. This led to a total of 38 healthcare professionals, see figure 6. Based on the answers, a table was drawn up in which involvement is classified into four categories:
1. No involvement of care provider or therapist for the respective type of short-term care;
2. Involvement before admission and after discharge;
3. Involvement only when the client has a specific demand for that type of care;
4. Involvement of care provider or therapist in the respective type of short-term care in most/all of the cases (See Appendix I).

Subsequently, the stakeholders of the third and fourth category were grouped together and ranked according to most prevalent. Although the healthcare professionals from the third category are not present daily, they do visit the short-term care locations and are thus considered part of the team for that respective type of short-term care.
This resulted in nine stakeholders being categorized as part of the core team (present at all six types) and six people categorised as a peripheral stakeholder (present at four to five types of short-term care). Moreover, six stakeholders are identified as being present at admission and/or discharge, while the remaining eighteen stakeholders are categorised as incidental stakeholders because they are present at a maximum of three types of care (see Appendix J).

Two notes must be made about this: first, the hostess was identified as a peripheral stakeholder, but is financed by the Long-term care Act (or are volunteers). Secondly, the informal caregiver is identified as an incidental stakeholder. This seems unlikely, as informal caregivers are usually part of someone's social circle or family whether or not someone is admitted temporarily.

A possible reason is that some respondents indicate that informal caregivers only give emotional support during the admission and do not want to be actively involved in providing care of helping with recovery. One respondent said that: *"What you see if there are informal caregivers, that there is a spouse living at home, who appreciates that temporary support can be provided, so that this person*
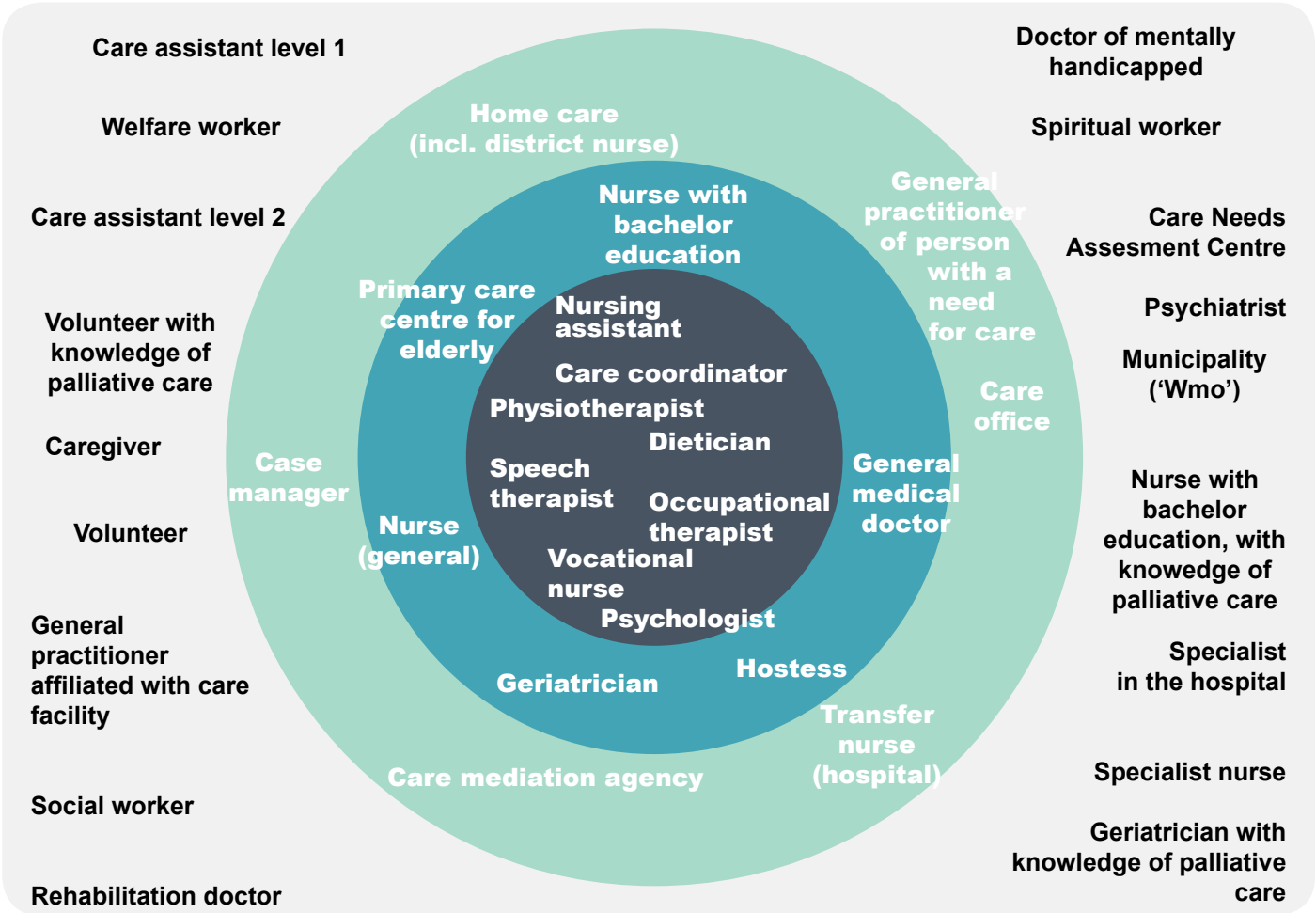

Figure 6 | Prevalence of health-care professionals, from the core team (6x) in dark blue; periphal stakeholder (4-5x) in bright blue; admission/discharge stakeholders in light blue; and incidentally involved (1-3) stakeholders in light grey (own illustration)

can also catch his breath" (Appendix F-10). Another respondent voices a similar opinion. She says that the care team would like to involve informal caregivers more, but that they often are in crisis themselves because they have to deal with the new health situation of their relative or are overburdened already. Therefore they appreciate some distance and do not want to be involved in all sorts of tasks (Appendix F-14). That might be a reason why the informal caregiver is not always considered to be a key stakeholder.

Based on this information, the compatibilities between the different types of care were visualised, see figure 7. What becomes clear is that respite care, intermediate care palliative and geriatric rehabilitation each have a few healthcare professionals that are solely involved for that type of care (11 in total). All other stakeholders however (27 out of 38 in total) can possibly work for two or more types of care, making up the majority of healthcare professionals.

When figure 7 is abstracted, it becomes clear that from an absolute perspective, three forms of care have between 18 and 20 professionals with the same function in their teams (Figure 8). These are intermediate care high complex, Wlz crisis care and geriatric rehabilitation. Furthermore, intermediate care high complex has 15-17 compatibilities with intermediate care low complex, intermediate care palliative and respite care. The same goes for intermediate care palliative and Wlz crisis care. All other combinations share between 12 and 14 healthcare professionals, and have the least co-occurrences in absolute terms.

If these relations (of figure 8) are considered from a relative perspective, the percentage of co-occurrences range between 60-83%. Between Wlz crisis care and geriatric rehabilitation, and Wlz crisis care and intermediate care high complex, there is a similarity of respectively 77% and 83% (see figure 9).

These numbers indicate that some extent of integration is possible. This raises the question if the tasks that healthcare professionals perform are also similar across the six types of care. This issue was not discussed in great detail during the interviews, but some indications were provided. Two professionals from the core team are used as example to illustrate the similarities and differences between the tasks.

To start with the nursing assistant, respondents indicate that he/she needs a different mindset for short than long-term care. Their regular activities are broadly the same across the six types of short-term care, and several departments appoint nursing assistants as contacts to clients and their family. What is different is that nursing assistants get a more coordinating role in case nurses are not present on a daily basis. Consequently, multidisciplinary meetings are prepared by nursing assistants for intermediate care low complex, while they work under the supervision of nurses at a geriatric rehabilitation department (Appendix F-10; F-14).

The work of the physiotherapist is more or less the same. He/she adjusts the treatment program to the needs of the client. What is different across the types of care, is that treatment is offered on an individual basis for all types except geriatric rehabilitation. Because of the relatively much larger volume and clearly distinct target groups, group treatment is given in modules. What currently happens is that clients from intermediate care high complex sometimes join the group treatment of geriatric rehabilitation, because it is more efficient than giving them individual treatment (Appendix M). This indicates that the type of treatment that a physiotherapist gives is not substantially different.

What is notable, is that most of the employees working for intermediate care palliative are specifically recruited for the job (Appendix F-11). The unique nature of palliative care requires people who like to work with clients in the last phase of their life, and possess the right competencies (e.g. comforting, ability to listen, supporting family).

Some professionals are also required by healthcare insurers to have additional knowledge about palliative care, like the geriatrician (see Appendix A). Healthcare professionals without this preference and knowledge are currently not allowed to work on the palliative unit. This ensures that the needs of clients are met by competent professionals, but it also means that employees do not have to work with palliative care clients if they do not like it (Appendix F-11; M). Because palliative care requires such specific competences and preferences from healthcare professionals, it would be a waste to employ them on a more regular short-term care unit. Therefore, intermediate care palliative in reality does not have interchangeable healthcare professionals, although some types of healthcare professionals co-occur at other types of care. For the other types of care, the tasks of the healthcare professionals do not seem to so substantially different that integration is undesirable.
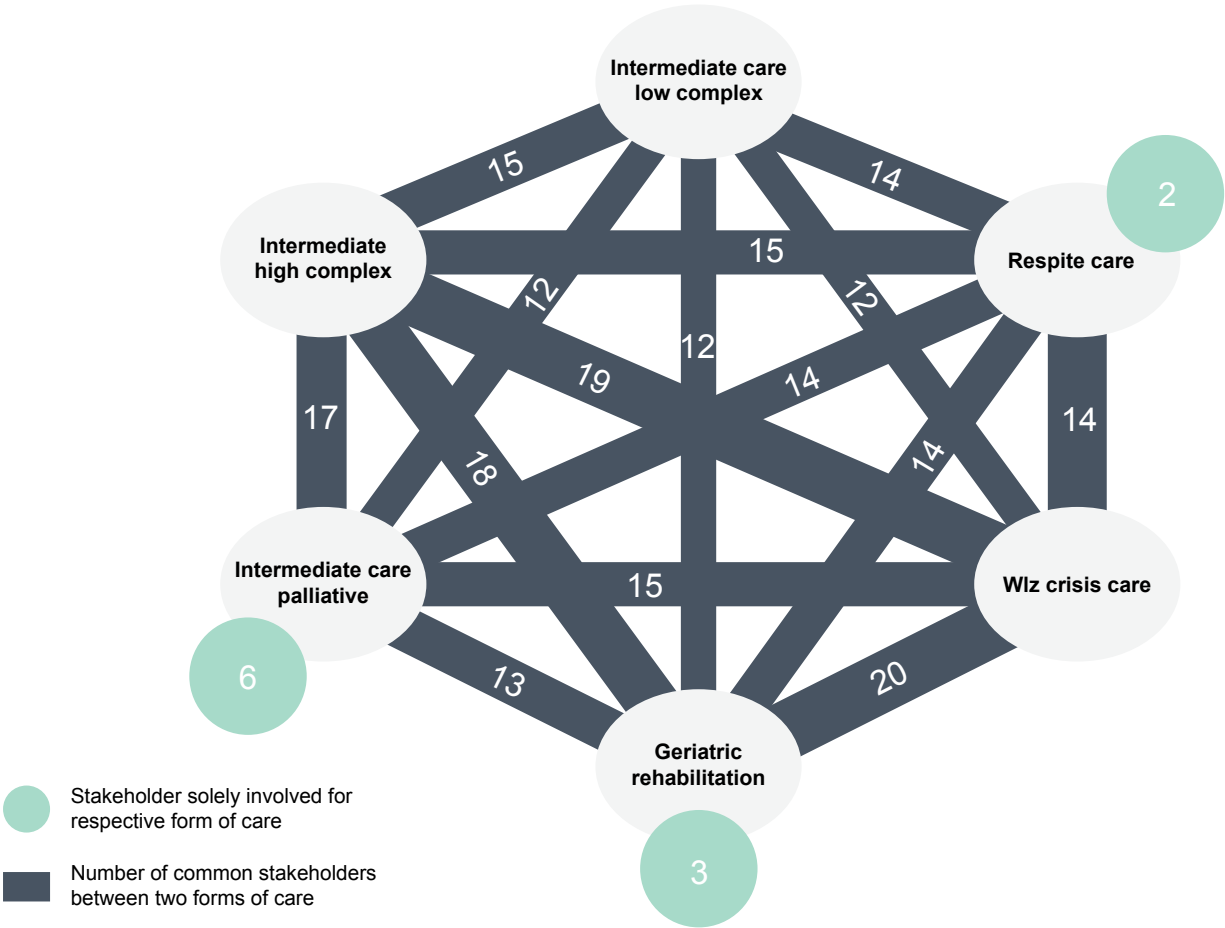

Figure 7 | Compatibilities of healthcare professionals between types of care (own illustration)

To conclude, based on the criteria of compatibility of healthcare professionals, a certain level of integration between different types of short-term care is certainly possible. The strongest similarities are between intermediate care high complex, geriatric rehabilitation and Wlz crisis care. However, geriatric rehabilitation, along with respite care and intermediate care palliative all have stakeholders that are involved solely for that type of care. What is notable, is that around two-thirds of people can potentially be employed for multiple types of short-term care exclusively. Only intermediate care palliative differs so much on competences and preferences that most healthcare professionals are not interchangeable. Between the other five types of short-term care optimisation of staffing is possible. As some types of care are more complex than others, it would be best from a care perspective to employ healthcare professionals that are able to provide the most complex
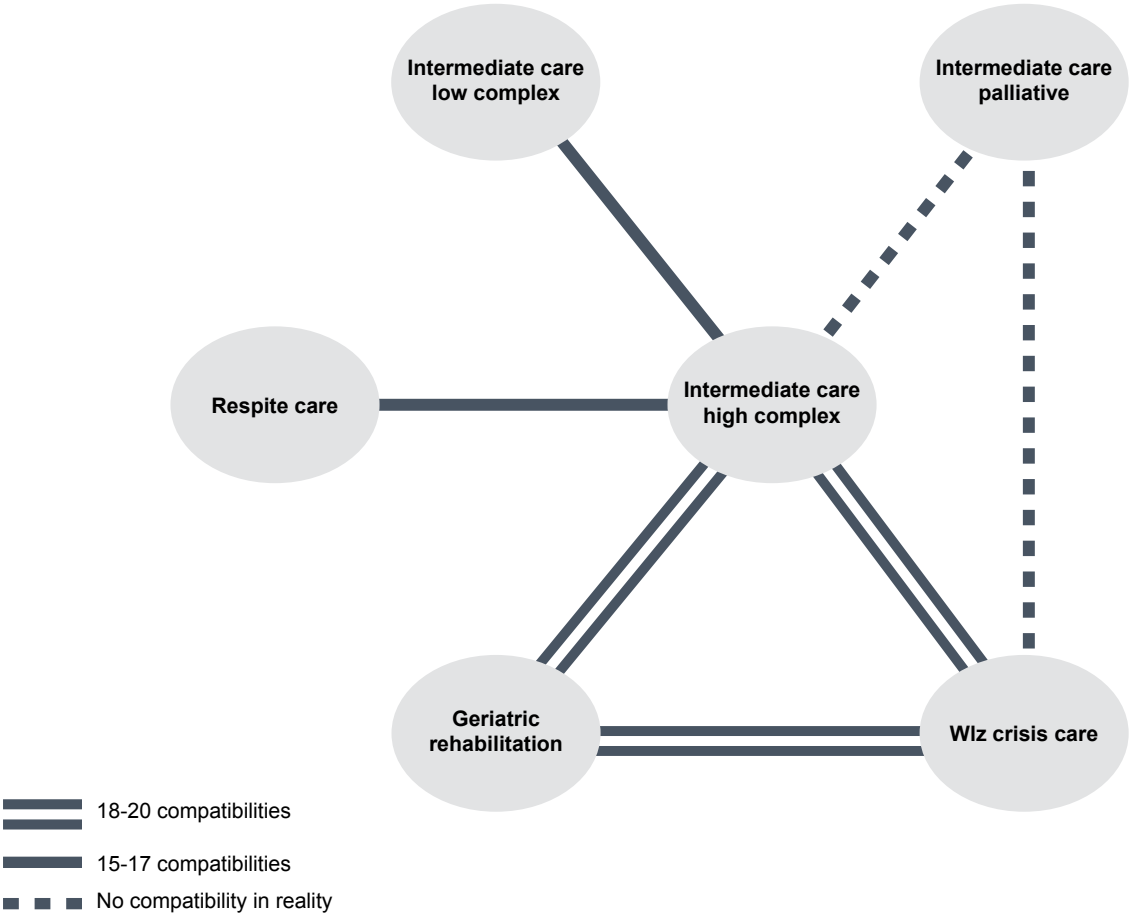

18-20 compatibilities

15-17 compatibilities

No compatibility in reality

Figure 8 | Abstracted version of compatibilities of healthcare professionals between types of care (own illustration)

care. This way, they can treat all clients because they can also provide less complex care. From a financial and human resource point of view, this proposal needs some consideration. It might for example be too expensive to use more highly qualified personnel for low complex cases.

Complexity of care, treatment and the care environment

Table 5 (page 30) is based on the measures of the three remaining criteria (B, C, D) established in Figure 8 (for more detail see Appendix K), the care paths and the answers of the participants of the focus group. For each criteria, some of the choices will be explained in more detail.

Percentage of co-occurence	
Wlz crisis care / IC palliative	60%
IC low complex / IC high complex	65%
Respite care / IC high complex	65%
IC high complex / IC palliative	68%
Geriatric rehabilitation / IC high complex	69%
Wlz crisis care / Geriatric rehabilitation	77%
Wlz crisis care / IC high complex	83%

stkh = stakeholder

━━━ 18-20 compatibilities

━━━ 15-17 compatibilities

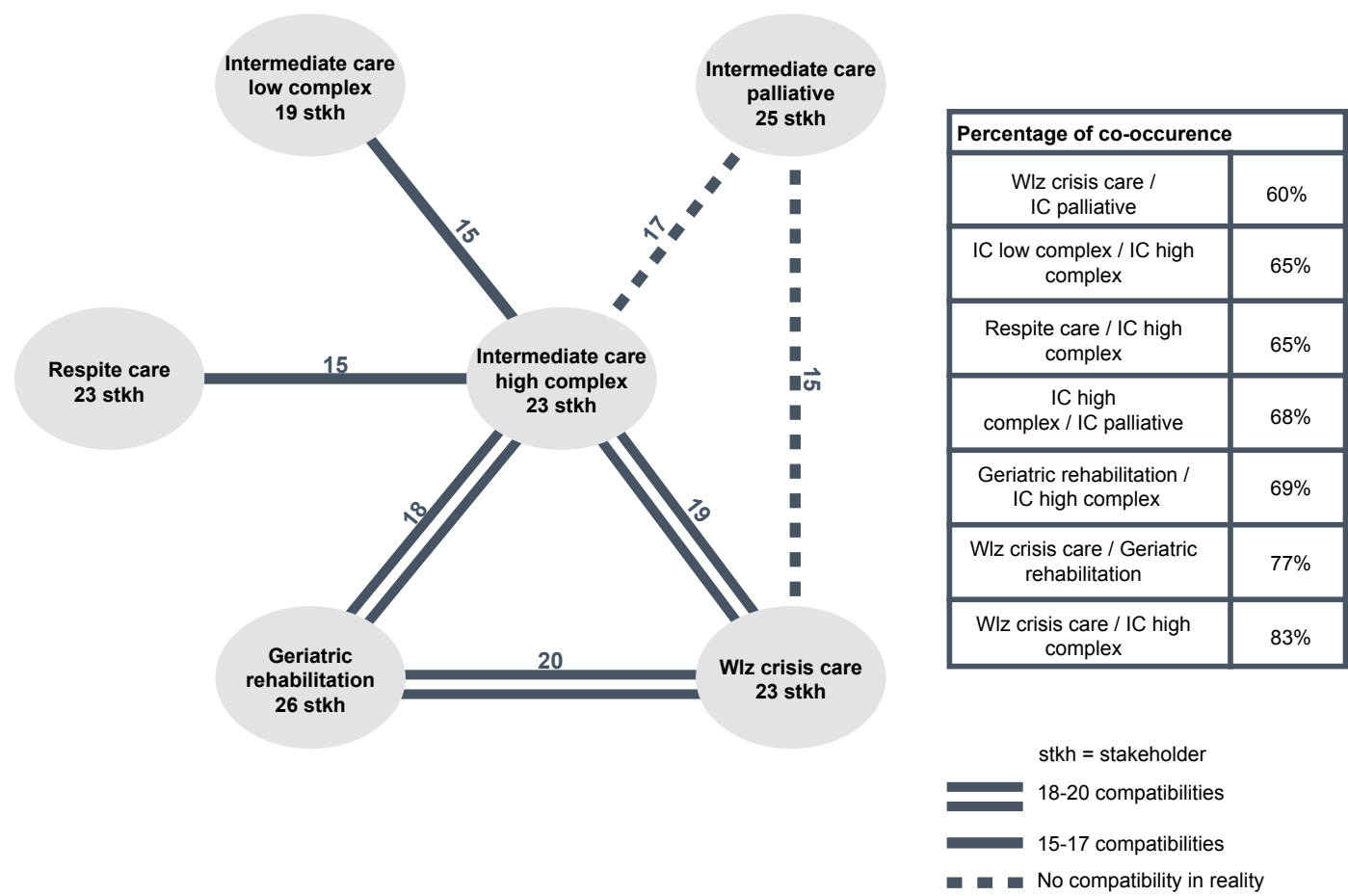■ ■ ■ No compatibility in reality

Figure 9 | Abstracted version of relative compatibilitity of healthcare professionals between types of care (own illustration)

For the criterion complexity of care, the figure shows that most types of care are not very similar to each other. Wlz crisis care shares some similarities in complexity with intermediate high complex and palliative, and geriatric rehabilitation. Intermediate care high complex seems to be compatible with all types of care. The reason is that the client group is very diverse and the complexity of care diverges as a result. Although some people are close to intermediate care low complex and need minimum recovery, others need a lot more treatment which is quite similar to care provided on a geriatric rehabilitation unit (Appendix F-7; Vilans, 2018). One of the respondents illustrated the health problems of what she believes to be a typical patient of intermediate care high complex, and says that a lot of treatment is necessary:

"Well, then it's up to the geriatrician to set up a system on day one which shows what needs to be done by whom, then everybody is put to work, and if you do it well then you can get somebody back on track with six weeks. That's 60 to 70 hours of treatment. Yes! Because that's what you need when someone needs to go to the physiotherapist three times a week, when the dietitian comes by for half an hour to make a schedule for you. When the speech therapist is coming around to watch how you eat…"
- Respondent on intermediate care high complex (Appendix F-7)

Another respondent however believes that intermediate care high complex is not so complex at all:

"In the end it should be a less complex matter [than geriatric rehabilitation], these clients. Fix them up a little bit and then send them home, theoretically. That is what intermediate care should be".
- Respondent on intermediate care high complex (Appendix F-8)

For the next criterion (intensity of treatment), respondents make a clear distinction between different types of

short-term care based on the amount of treatment that can be given:

"And well, for [intermediate care] high complex there are more hours available for treating a client. If for example a client comes here [location for intermediate care low complex] and he needs physiotherapy, then we offer that only two times a week. And for high complex this is of course much more, and increasingly so for geriatric rehabilitation. So the hospital needs to make the decision, does someone really need rehabilitation, then geriatric rehabilitation, or is a client already so much improved, and is he able to walk independently with a walker, then he can go to a low complex room."
- Respondent on different types of short-term care (Appendix F-10)

The distinction is a direct result of the financing system in which a certain amount of minutes a day is funded. Because of the diverse client group of intermediate care high complex, the amount of treatment that is given in reality does not always match theory. The official maximum is 1,5 hours a week, but this is sometimes exceeded substantially (see quote in left column). Therefore, intermediate care high complex sometimes falls into the same category of treatment as geriatric rehabilitation, where depending on the payment type around 5 hours a week is allowed (Appendix M).

The next criterion is the care environment. Respondents make a clear distinction between how the care environment should be for each type of care. As an example, the difference between intermediate care palliative and respite care is illustrated with the following quotes:

"This is the finality of life. So you have to accept it as it is. And someone's well-being is still the most important, but well-being in a different sense of the word.
That someone can lie or sit comfortably. That someone is in no pain, and that you can take away someone's

worries for as far as that's possible. And that his relatives can be with him, that really comes first."

- Respondent on intermediate care palliative (Appendix F-11)

"Our vision is that the guests that come here have a holiday experience. Because practice has taught us that caregivers find it extremely difficult to leave their partner or father or mother. They feel very guilty, like we put them away only because we need rest ourselves. But when you see what these people do, then it's very important that they are relieved of their duties once in a while […] and we have noticed that they find it easier to do when they are brought into an environment where it is nice to be. A bit of that vacation, that hotel environment is what we are trying to create. With the volunteers we want to make sure that people really can do fun things here. Beach walks, trips, taking the beach caterpillar wheelchair tour, games…"

- Respondent on respite care (Appendix F-12)

Although both respondents talk about well-being, the meaning differs quite a lot and are therefore assigned to different categories.

What participants indicated during a focus group session is that palliative care is more similar to long-term care than short-term care. The average length of stay of clients on long-term care has gone down to 6-9 months since the healthcare reform. long-term facilities are therefore focused on providing palliative care in a corresponding care environment. Intermediate care palliative has a maximum duration of 3 months, so there is little difference between this and long-term care (Appendix M). It is therefore quite compatible with long-term care. The issue that remains when intermediate care palliative is combined with long-term care, is that this combination forces people who have been living at home all their lives into a nursing home for the last months of their life. A location without the image of the nursing home might be preferred from the client perspective. A combination with other types of short-term care is however not beneficial for the client. Short-term care is characterised by the participants as very dynamic and oriented on returning home, while palliative care is about comfort and rest (Appendix M). The characteristics of the clients differ as well: most of them are focused on recovery, activity and returning home, while this is not the case for palliative clients (Appendix M). Therefore, a combination of intermediate care palliative with other types of care is not ideal. A separate location or hospice might be a good solution, but further research is needed to determine this.

	Complexity of care	Intensity of treatment	Care environment
Intermediate care low complex	1	2	3
Intermediate care high complex *(diverse group)*	2-3	3-4	3-4
Intermediate care palliative	4	2	2
Respite care	1	1	1
Geriatric rehabilitation	3	4	4
Wlz crisiscare	2	2	*Not explicitly answered by respondent, but based on interview & literature:* 3

Table 5 | *Intensity of care, treatment and the care environment for each type of short term care*

	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
	Intm. care low complex*					Intm. care high complex					Intm. care palliative				
Intermediate care low complex*						1	0	0	1	1	0	0	1	0	0
Intermediate care high complex	1	0	0	1	1						1	0	0	0	0
Intermediate care palliative	0	0	1	0	0	1	0	0	0	0					
Respite care*	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
Geriatric rehabilitation*	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
Wlz crisis care*	0	0	1	1	0	1	1	0	1	1	1	0	1	0	0

	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
	Respite care*					Geriatric rehabilitation*					Wlz crisiscare*				
Intermediate care low complex*	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0
Intermediate care high complex	1	0	0	0	0	1	1	1	1	1	1	1	0	1	1
Intermediate care palliative	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
Respite care*						0	0	0	0	0	0	0	0	0	0
Geriatric rehabilitation*	0	0	0	0	0						1	0	0	0	1
Wlz crisis care*	0	0	0	0	0	1	0	0	0	1					

Compatibility of healthcare professionals	A	1: 15 compatibilities or more | 0: Less than 15 compatibilities
Complexity of care	B	1: compatible on complexity & expertise of care | 0: not compatible
Intensity of treatment	C	1: compatible on intensity of treatment | 0: not compatible
Care environment	D	1: compatible on care environment | 0: not compatible
Characteristics of clients	E	1: client groups can be mixed | 0: client groups cannot be mixed
*		Involvement of primary care treatment centre for elderly

- 🟧 2-3 out of 5 compatibilities
- 🟩 4-5 out of 5 compatibilities

Table 6 | Cross-matrix with overview of compatibility of care

The participants from the focus groups came to the agreement that Wlz crisis care fits best with other types of short-term care. Although it is funding by the long-term care Act, the dynamics are different and it is characterised by an extremely short admission. Currently, Wlz crisis care clients create unrest for residents of long-term care locations. What is important however, is to ensure that specialist healthcare professionals are present 24/7 because of the crisis nature. If that cannot be guaranteed in a combination with short-term care, then it is better to locate Wlz crisis care at a location with long-term care that has the right expertise available (Appendix M).

Based on figures 9, 10 and table 5, a cross-matrix was set up which determines similarities between types of short-term care, see table 6. What is interesting to see it that respite care has limited compatibility with other types of care.

The likely reason is that there is no need to change the health status of a person during a stay at respite care, while this is the case for all others (Appendix F-12). However, there are similarities in required healthcare staff, and respite care is a temporary form of care like all others. The participants of both focus group sessions indicate that there is a lot of discussion going on about how respite care should be developed. Currently, only clients with low complex care can be admitted, while there is a bigger demand for respite care for clients with high complex care (both physical and psychogeriatric) (Appendix M).

When asked further about this, participants indicate that respite care low complex and high complex for people with a somatic condition can be combined with other types of short-term care (especially intermediate care low and high complex). High complex care for people with
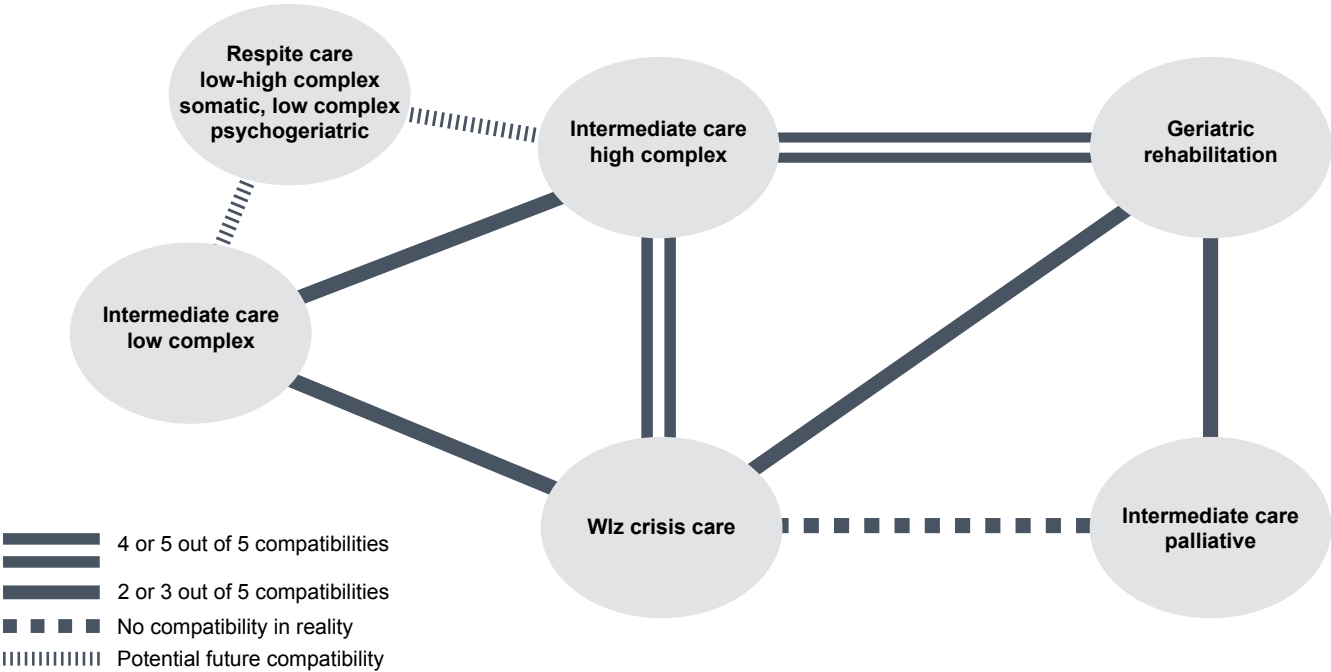

Figure 10 | Visualisation of possible combinations from the care and client perspective (own illustration)

psychogeriatric indications is a different matter: a short-term care centre would create too much unrest for people with advanced dementia. Whether such a facility would be better matched with long-term care of a day centre should be researched further. Based on the input from the focus group sessions, it is assumed that respite care low complex and high complex for somatic conditions can be combined with short-term care because the type of care is similar. However, separate departments are still required, because the care environments are quite different.

4.3 COMPATIBILITY FROM USER PERSPECTIVE

So far, it has been established that the majority of healthcare professionals can potentially work for multiple departments. There are also similarities in the complexity of care, the intensity of treatment and the care environments. However, it also important to determine the compatibility from the user perspective. As was mentioned earlier, the characteristics of the clients are grouped together based on the types of short-term care. In cross matrix in table 6, the compatibility between client groups (category E) is indicated with a 1 (compatible) and 0 (not compatible). It shows that the characteristics of the client groups are quite diverse. This constrains the level of integration because mixing clients on the same department is not desirable from the perspective of the client, because like attracts like. Especially a difference in mental status is undesirable (Appendix F-13). This means that separate departments are required where the right care environment can be established, and the characteristics of the clients do not differ too much. Because of the possibility of integration from the care perspective, housing all types of short-term care (except intermediate care palliative) under one roof would still be beneficial.

4.4 CONCLUSION

The first research question is: *'Which types of short-term care can be combined for integrated care?'.* The analysis of five criteria for each type of short-term care leads to the visualisation of possible combinations (Figure 10). It shows that there are multiple combinations possible, and that some interdependencies are stronger than others. It appears that two combinations have four or five matching categories, while four combinations have two or three matching categories.

Because of the different characteristics of the clients, the different care environment and the specifically recruited team of healthcare professionals, intermediate care palliative should not be integrated with the other types of short-term care. Respite care currently has a weak connection to the other types of care, but if more complex (somatic) care is provided, the differences will become smaller.

Going back to Aghren & Axelsson (2005) and their 'continuum of integration', it can be said that intermediate care palliative should be fully segregated from other types of short term care. Other combinations allow for linkage, coordination or cooperation. Better communication, pooling certain resources (personnel and real estate) and sharing responsibilities (e.g. treatment modules) may result in more client centred care. A lesser extent of integration should be the aim for combinations with a weaker connection, like intermediate care low complex and geriatric rehabilitation. A higher degree of integration like cooperation can be strived for with regards to stronger connections like intermediate care high complex and geriatric rehabilitation. Findings indicate that full integration is not possible because the characteristics of the clients and the care environments differ too much between the researched types of short-term care. Besides this, regulations defined on macro level also do not currently allow it, because financial streams for example still comes from different funds.

5. FINDINGS RESEARCH QUESTION 2

With the second research question, *'What are the requirements for the real estate and location for this combination of short-term care?'*, answers are formulated for three issues. First, how a combination of short-term care should be translated to real estate; secondly, how short-term care should be distributed across the region, and third, how this looks like in a functional program. This research question does not address how to design a short-term care building, but aims to create a functional program which a designer or real estate manager can use as the starting point of a new development.

5.1 THE SPATIAL TRANSLATION OF A COMBINATION OF SHORT-TERM CARE

According to the business model canvas theory, organisations have a certain value proposition to their clients: the type of care they offer, the level of quality and real estate facilities (Strategyzer, 2018). Findings from the first research question established that five types of short-term care have the potential to be integrated to some extent. Being physically located near each other provides multiple opportunities for more efficiency and client centred care. It was also concluded that due to the differences in care environment and characteristics of clients, full integration is not possible. Separate departments remain necessary. It has also been established that a combination with long-term care should be avoided.

The current situation does not allow for integration of short-term care, because it is spatially dispersed. The care provider that is studied has around 180 short-term beds at the moment, divided over six locations in the region. Furthermore, short-term care is combined with long-term care. The generally small departments (three beds at the minimum) are located within long-term care buildings, and clients can make use of long-term care facilities such as a restaurant or recreation room. Besides a physical combination, the homely and sometimes old-fashioned look of the building also conveys the typical image of a nursing or residential care home. Therefore, real estate needs to be aligned with the new value proposition of integrated short-term care.

As was determined in the introduction, short-term care should preferably not be housed within the same building as long-term care. This means that two options are left: providing short-term care at home or in a separate building.

Providing short-term care in a home setting is an option that some of the respondents believe to be a future possibility. This eliminates the need for real estate. With a government policy striving for patient centred care at home, this might be the future of short-term care. However, all types of short-term care need medically trained people in the vicinity for 24 hours a day. Many clients need help with activities of daily living, such as going to the toilet or dressing. Home automation and e-health are regarded as having great potential in being able to offer round the clock care at home, but it is expected that this development will take several years before implementation is possible (e.g. Molema, 2018). Therefore this option is not analysed further.

The second option is to create one or more short-term care centres. Potentially, approximately 170 beds (excluding intermediate care palliative) can be concentrated within one building. This is similar in size to one of the largest locations (estimated floor area of 12.000 m2) within the real estate portfolio of the care provider that is studied. Within a short-term care centre, specific rooms and facilities for short-term care clients can be created. Participants of the focus group indicate that the interior design needs to be focused on a return to home. Rooms should be equipped like hotel rooms: sober, but with all the necessary furniture so clients do not need to bring their own. A coffee machine or even a small kitchen in the room can stimulate clients to be as active and self-reliant as possible. An important shared facility is the gym. This allows clients to exercise whenever they want,

offering them more freedom of choice.

Because participants noticed that short-term care clients receive more company than residents on long-term care facilities, extra attention should be given to parking and facilities where clients can receive visitors, such as a restaurant. In order to create a clear identity externally as well, participants mentioned that the building should be designed more modern than the current locations (Appendix M).

Besides spatially combining short-term care under one roof and creating a clearly distinct identity, developing a short-term care centre has other advantages deriving from real estate. A selection of the added values of this real estate concept will be discussed in turn below, and are based on the added values by Van der Voordt & Van der Zwart (2016), the in-depth interviews and the focus group sessions.

Interdisciplinary collaboration through spatial proximity (improve culture)

Spatial proximity can lead to increased collaboration and trust between healthcare professionals (Knoben & Oerlemans, 2006; Nilsson & Mattes, 2015). Respondents indeed perceive the ability to quickly discuss a patient or call for extra help as an added value (Appendix F-2;11). They do mention that there is a culture where some people consider other departments within the same location as 'somewhere else'. They do not want to leave their department. In the design of the short-term care centre, attention needs to be paid to creating common rooms where healthcare professionals meet each other automatically, such as a canteen or a central hallway:

"Here you can really see the efficiency of being able to coordinate quickly. At the coffee [machine], you see your colleague and you can say 'Let's talk about this client, because I'm going over there tomorrow and I saw that you went there yesterday'. The communication lines are very short. […] You meet each other more easily. […]

So if you are really talking about working efficiently, then it's much better here because we're working close to each other".

　　　　- Respondent on spatial proximity (Appendix F-2)

Less travel time, more time for the client (increase productivity)

Currently, short-term care is spread across the region. Figure 11 shows the distances and average travel times between the locations. Especially practitioners and geriatricians may benefit from having a larger volume of clients in one location. Now a lot of time spent is on travelling, which lowers productivity:
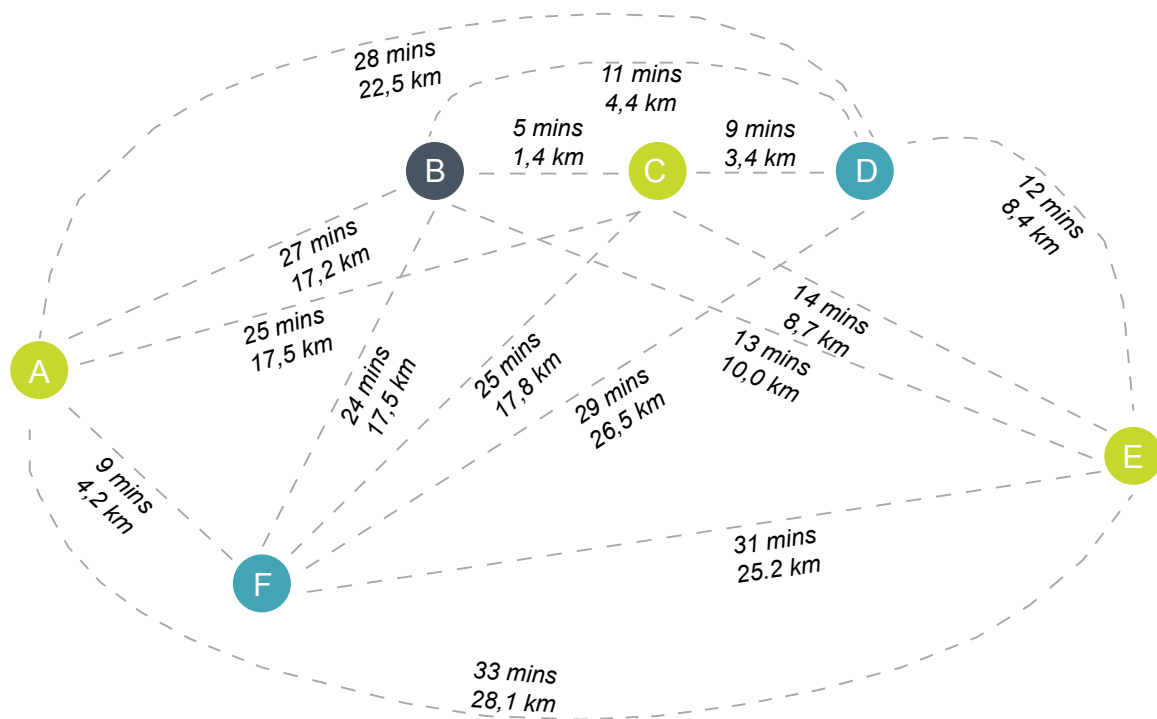
"What the advantage is of linking it all together, is that healthcare practitioners and sometimes carers don't have to travel a lot. I spend, for a location that is ten minutes away, thirty minutes going to and thirty minutes from that location, because I have to turn off my computer, I have to put on my coat, I have to get the car, drive ten minutes, turn it all on. So other locations take up a lot of time. There are times when I spent thirty per cent of my time driving around. […] That is a waste. Then I am a very expensive taxi driver."

　　　　- Geriatrician on travel times (Appendix F-7)

Creating the right expectation for the client (support image)

A reason that respondents kept mentioning as an advantage of creating a building for short-term care, is that they believe that a building can add value by creating the right expectation for the client and the family. As one respondent states:

"Well, my advice would be to make a building solely for short-term care […] because of the image, but also because of the fact that some people do not want to return home when they are here. And then we have a discussion about [that people] want to stay, or do not

Figure 11 | Current distances and travel times between locations with short-term care (own illustration)

A — **Residential day care centre**
Respite care
Intermediate care low complex

B — **Geriatric rehabilitation at hospital**
Geriatric rehabilitation

C — **Residential care centre**
Intermediate care low complex

D — **Expertise centre**
Geriatric rehabilitation
Intermediate care high cognitive
Intermediate care high physically
Intermediate care palliative
Wlz crisiscare

E — **Residential care centre B**
Intermediate care low complex

F — **Expertise centre**
Intermediate care high cognitive
Intermediate care high physically
Intermediate care palliative
Wlz crisiscare

want to go to another department. And if you create a separate building, a separate location, then you can set the expectation much more clearly towards the client. […] Expectation management is the most difficult towards the clients but also their family."

- Respondent on expectation management
(Appendix F-12)

Expectation management seems to be a combination of establishing the right care environment by separating long-term care from short-term care clients, informing clients what to expect and what is expected from them during the intake process, and ensuring that the building supports the image of short-term care. Currently, the buildings contradict the expectations that are communicated. Participants indicate that clients are 'easily sucked away into residential living'. This may result in losing the focus on recovery, and resistance of clients who do not want to go home (Appendix M).

From the point of view of the value proposition, it makes sense to create a separate building for short-term care. The building then caters to a specific target group, and it means that clients do not have to go to a nursing home while they do not need long-term care. Avoiding the images that a nursing home conjures has two benefits: it might limit the occurrence of clients refusing to go home, and the client group that 'do not want to be found dead in a nursing home' (Appendix M) can be attracted because they do not have to physically enter one. During a focus group session, one participant gave an example about the effect of creating the right expectations: a day centre was developed at a large location for long-term care and shared the same name. Very few people went to the day centre, because it created the association with long-term care. The care provider then changed the name of the day centre, and it is running very well now (Appendix M). Therefore, a separate name can already establish the right expectations. More about expectation management and the underlying issues are written in the findings of the third research question.

One of the issues with short-term care is that it is acute, unplanned care. This requires a certain overcapacity of beds (Appendix F-6). Besides this, some types of short-term care face lower occupancy rates than what is deemed optimal (for acute hospital departments, which are somewhat similar because of the unplanned admissions, 85% occupancy is considered optimal (Keegan, 2010). From a financial perspective, an occupancy rate below 85% is not desirable. Empty beds do not generate income, the productivity of staff goes down, and the fixed costs remain.

Currently, both short-term care facilities and the required expertise are dispersed across different locations. This could result in the scenario that there are available beds on an intermediate care low complex location and a bed shortage for intermediate care high complex. However, high complex clients cannot be placed on those available low complex beds, because the required expertise is not available at that location. Clients are therefore placed in a facility of a competitor in the region, which results in a loss of income. Combining all types of care on one location would make dynamic use of beds possible while the required expertise is available: care can be given regardless of the indication. A side note needs to be placed here, because insurers need to agree not to tag beds for one type of care, and to be flexible with their budgets.

Short-term care on the same location as long-term care

Findings suggest that short-term care should not be situated in the same building as long-term care. That does not necessarily mean that they cannot be located on the same terrain. The care provider that is studied has over 30 locations in the region, and some buildings are partially vacant or will become vacant due to the decrease in long-term care beds. Procuring a new location is costly and time-consuming, and using one of

the existing locations is therefore preferred (Appendix M). Two options are thus possible: either the location will be exclusively redeveloped for short-term care, or it will be combined with long-term care on the same terrain but in a different building (unit). This is possible, provided that the differences are made clear through a distinct identity. A different materialisation of the building, name and entrance are some of the options.

5.2 INTEGRATED SHORT-TERM CARE FACILITIES

During the interviews, three healthcare services were mentioned multiple times by respondents. They all have a connection to one or more types of short-term care. Locating these services within the same building or on the same terrain has the potential to vertically integrate care. It can potentially lead to better coordination across the services.

First, the general practitioner (GP) was mentioned for respite care and intermediate care low complex. For these types of care, the GP is medically responsible for the clients (Appendix G1;5). However, it happens that clients live too far away from the short-term care facility for their GP to come by. In these cases, a local doctor is asked as representative (Appendix F10;12). For this reason, it would be an advantage if a general practitioner is located in or close to the short-term care centre. This is beneficial for the GP because he can spend a minimum amount of time on these clients. Close proximity may also lead to better understanding of short-term care. According to participants of the focus group, some GPs currently are not interested in short-term care, and need to be actively included by the care provider to ensure that the GP knows what is expected of him (Appendix M). Besides this, housing a GP inside the centre has the advantage that it gives people from the neighbourhood a reason to come inside. It lowers the threshold of entering the building, therefore stimulating integration with the neighbourhood.

Secondly, several respondents mentioned a service of primary care practitioners that are experts in treating vulnerable elderly (Appendix F-10;12;14). Currently, they are deployed as an ambulatory team for treatment and technical nursing activities. The advantage of housing this service inside the short-term care centre, is that they reduce their travel time and can spend more time providing care. The practitioners of this treatment centre also have the right expertise, because they only treat people who still have a home address (Appendix M). This leads to another advantage because treatment can potentially be continued after discharge. It creates a strong connection between admission and the home situation. The last advantage of housing this service inside the centre is that it, like the general practitioner (and day centre), invites people from the neighbourhood into the building.

The third healthcare facility that was mentioned by several respondents is the day centre. At the moment the short-term care clients are allowed to participate in the daily (group) activities that are organised for long-term clients, which are funded by the Long-term care Act:

"They [intermediate care low complex clients] participate in group activities that are organised downstairs in the restaurant, or bingo, painting, music night, they can join that of course"

- Respondent on activities (Appendix F-10)

With the option of a short-term care centre, it is no longer possible to take advantage of group activities funded by the long-term care Act. However, a place where people can meet each other and take part in activities is important. Recovery does not only entail increasing physical abilities but also well-being (Appendix F-13). The social contact is just as important as physical recovery.
A possible solution is provided by one of the respondents (Appendix F-12), who states that the meeting centre is a supplier of clients for respite care.

The respondent also believes that integrating respite care and a day centre would be beneficial because caregivers are familiar with the meeting centre and potentially feel less hesitant to let someone else take care of their relative for some time. This could increase occupancy rates for respite care, which are currently still behind the target. Besides this, a day centre provides care for people who still live at home. Clients who are admitted to a short-term care unit can potentially continue their regular activities at the centre, or can get acquainted with a day centre. This is especially beneficial for elderly who have limited social contact at home. Another opportunity of housing a day centre inside a short-term care facility is that is can double as a waiting room for the general practitioner and other primary care treatment centre. This may create some interaction between elderly and people from the neighbourhood.

The option of combining short-term care with a day centre was a topic of discussion during a focus group session. Participants indicated that a combination was a good idea, but that the concept of the day centre needs to be tailored to short-term care. At the moment, activities for people with dementia are offered in most centres. Clients are learned to deal with the disease and accept the gradual worsening of dementia. A day centre for short-term care needs to focus on recovery and return to home. Other types of activities are required. Options like exercise activities or a cosy cafe or pub where people can socialise can be further explored. Additionally, participants indicate that this care service does not necessarily need to be called a day centre. Other names are possible as well (Appendix M). To conclude, a meeting centre has the potential to provide the space to meet and participate in activities that are currently funded by the Long-term care Act.

5.3 REQUIREMENTS FOR THE LOCATION

Portfolio decisions do not only concern strategic real estate decisions, but also location choices. With the term location, a sizeable geographical area is meant, not the terrain on which a building stands. Respondents were asked what they considered important regarding the location. Table 7 displays their requirements.

It is noteworthy that respondents have different opinions on the matter of the spatial distribution versus concentration of care. This is a topic of discussion for all types of care. The current government policy aims to bring care to the people instead of the other way around. Research shows that hospitals have spatially concentrated specialist functions and spread outpatient clinics across the region (Postma & Roos, 2015). The underlying idea is that people have to travel further for specialist care that they do not need on a daily basis, and that more generic care is provided close to home (Nederlandse Vereniging van Ziekenhuizen, n.d.; Postma & Roos, 2015). Due to financial considerations, this is not always the case. Discussions are for example ongoing about concentrating emergency care departments through the closure of smaller departments, resulting in people needing to travel further for acute care (Herderschee, 2018).
Both long-term care and mental healthcare have been going through a process of downscaling. Deinstitutionalisation has led to a steep increase in the number of small-scale homes and a decrease of large nursing homes (Postma & Roos, 2015). Between 2005 and 2010 the number of people with dementia living in small-scale homes rose by 178% (Te Boekhorst, 2010). Postma and Roos (2015) have found that there are different reasons for concentrating care. They identified five categories of motives: healthcare provision, market position, efficiency, financial reasons, and pressure from internal and/or external stakeholders.

A concentration of care is according to Postma and Roos (2015) *"an instrument to change the organisation and delivery of healthcare services. By realising a broader/ more specialised range of services or by providing services to new groups of clients or in other geographical areas, they seem to aim at attracting new patients and/ or offer more or better services to their existing patients"*. Another important reason is that economies of scale can be reached: more efficient use of the available means. Overhead costs can go down, and real estate, bed capacity and personnel can be used more efficiently (Postma & Roos, 2015).

Research about the distribution versus concentration of short-term care has not been performed yet. It shares some similarities with both long-term care (same target group) and hospital care (short-term, unplanned care), but also some differences. A respondent makes a clear distinction between long and short-term care, and what that means for the location choice:

"Is it permanent living, then I say give everyone their preferred location. Is it short-term and treatment, then to my belief you will have to center is. That's what we already see at hospitals. If you want people to get really good surgery of their thyroid, then you drive to Amsterdam nowadays. We don't do that yet. We are a bit slow I think. […]. I think that we will have to do that in the whole elderly care sector. Because we have too few people, and then you have to be more efficient."
- Respondent on location choice (Appendix F-7)

Other respondents view the matter from the perspective of the client:

"You have to give people the chance to live within the setting where they actually come from. […] Because how can you explain to someone who is 84 who is admitted here, that the partner of 86 has to travel to another city. That's not going to happen. […] Let's be honest. Let's be realistic. That is not the humane thing to do. Right?!"
- Respondent on location choice (Appendix F-11)

In order to determine where to locate short-term care, a trade-off is necessary between the advantages of concentration versus the preference of clients of

Requirements for the location
Central location in the region to serve the biggest possible target group (Appendix F-6)
Location does not matter, it is more important that the care is of good quality (Appendix F-10 & F-13)
Must located be in the same city or village that a person lives in (Appendix F-11)
Easily accessible for relatives by car and public transport (Appendix F-10 & F-12 & F-13)
Not on the same location as a long term care facility (Appendix F-14)
Located in the centre of neighbourhood, so that it is easily accessible for everyone (Appendix F-13)
Easily accessible for volunteers (Appendix F-12)
Must be a location where things are happening, and has some facilities which clients can visit on foot, such as a supermarket (Appendix F-10 & F-12)
Close to the hospital (Appendix F-10)
Safe environment so clients can go out (Appendix F-10)
Specific for respite care: should be in an environment which evokes a 'vacation' feeling (Appendix F-12)

Table 7 | Requirements for the location according to respondents (Appendices F-1 through F-15)

receiving care close to home. Participants from the focus groups indicated that concentration is necessary for further development of short-term care, but that concentration should be 'reasonable'. The care provider is active in four municipalities. At least two easily accessible locations in the two biggest regions are recommended by the participants. Furthermore, they also see potential is concentrating intermediate care high complex, geriatric rehabilitation and Wlz crisis care, but distributing intermediate care low complex across the villages and cities. How this should be organised (e.g. stand-alone facility or part of a nursing home) needs to be researched further.

Another option to determine where to locate short-term care, is to ask clients for their preferences and determine 'reasonable' travel times this way. This also requires further research.

The location of respite care depends on the type of respite care (low complex at the moment). Currently, an environment where things are happening is important according to the respondent (Appendix F-12). Locations close to nature or in an urban environment are therefore possible.

5.4 FUNCTIONAL PROGRAM

A functional program can be set up based on the results of research question 1, the option of a short-term care centre, the identification of three additional healthcare services, and the requirements for the location. A functional program can be part of a program of requirements, which is *"an ordered collection of data about the accommodation needs of an organisation and the required performance of the location, the building, the spaces, the building parts and the facilities in the building and on the site"* (Hoendervanger, Van der Voordt & Wijnja, 2012). The level of detail of a program of requirements can differ, and this functional program encompasses how to spatially combine different types of short-term care and the additional healthcare services

within its surroundings.

The program is based on the current amount of short-term care beds across the real estate portfolio. It is up to the HRCSP and insurers to determine the future demand. Financial considerations are also not part of the functional program, because feasibility is strongly dependent on the desired market share for short-term care by the HRCSP and the financial business cases of the existing real estate. Requirements about the design will also not be made, and is left to an architect. However, this research assumes that the building will be future-proof (both sustainable and flexible), and that attention will be paid to factors that may influence recovery and well-being of clients and healthcare professionals.

Figure 12 is an abstract depiction of the functional program. The requirements for the location are written in the outside ring. The collective facilities function as the transition zone where short-term care clients and residents from the neighbourhood can come together. Three different care environments should be created within the building which facilitates five types of short-term care. The types of care are situated in separate units, but internal flexibility within the same care environment is possible based on demand.

Figure 13 visualises a possible translation of a functional program into a three-dimensional building. This building is just one of the many design possibilities, and should only be seen as an example of how the functional program may look. The configuration is based on the assumption that the types of care that have the strongest similarities should be closest to each other. For example, the 'other' category of geriatric rehabilitation signifies a diverse category of clients. This diversity in care needs is also present for intermediate care high complex, and therefore the types are located on the same floor. Furthermore, the rehabilitation care environment is situated furthest away from the collective facilities. This is because clients are more vulnerable and less self-reliant at the beginning of their stay than clients within the recovery environment.

The further the progress, the more clients can be exposed to the bustle of the activities on the ground floor. Appendix N shows how this program can be translated to one of the development locations of the care provider. Due to confidentiality reasons, this translation is not included in this report.

5.5 CONCLUSION

The answer to the second research question ('*What are the requirements for the real estate and location for this combination of short-term care?*') consists of multiple elements. First, the current situation was discussed, and it was determined that a building exclusive for short-term care adds the most value to the primary process. The design of the building should facilitate recovery. Three additional facilities were identified which creates opportunities for vertical integration of care. Situating the facilities within the short-term care building can integrate the neighbourhood with the care facility. Secondly, several location requirements were established. The key issue proved to be whether short-term care should be concentrated or distributed. Participants of the focus groups advised that two centres within two regions would balance the tension between the preferences of the clients and the greater efficiency in business operations. Based on this information, a schematic and three-dimensional functional program were created based on the number of beds that the care provider currently offers. It can be a tool for further research of the spatial requirements of integrated short-term care.

Right page: Figure 12 | Abstract functional program (own illustration)

LOCATION

Easibly accessible by care & public transport from within the region

Parking facility

COLLECTIVE FACILITIES

General practitioner's office

Primary care treatment centre for vulnerable elderly

SHORT TERM CARE

REHABILITATION:

- **Geriatric rehabilitation (stroke, orthopedic, trauma)**
- **Intermediate care high complex**

RECOVERY:

- **Wlz crisis care**
- **Intermediate care low complex**

WELL-BEING:

- **Respite care (more luxurious and vacation-like than the other departments)**

Daycare centre

Facilities for visitors

Rooms for employees

Exercise facilities

Shared facilities

Main entrance

Garden

Centre of neighbourhood

Building should invite neighbourhood

Dynamic surroundings

Safe for clients to go out

Rooftop garden: suitable for people who have tendency to wander

Meeting centre as waiting room for general practitioners and primary care

Meeting centre for all types of short term care and to invite neighbour-hood

Meeting centre

Geriatric rehabilitation 'orthopedics'

Geriatric rehabilitation 'stroke'

Intermediate care high complex

Geriatric rehabilitation 'other'

Intermediate care low complex

Wlz crisiscare

Respite care with private gardens

Primary care for elderly with shared excercise facilities

GP for respite care and interm. care low complex

Rehabilitation

Rehabilitation

Recovery

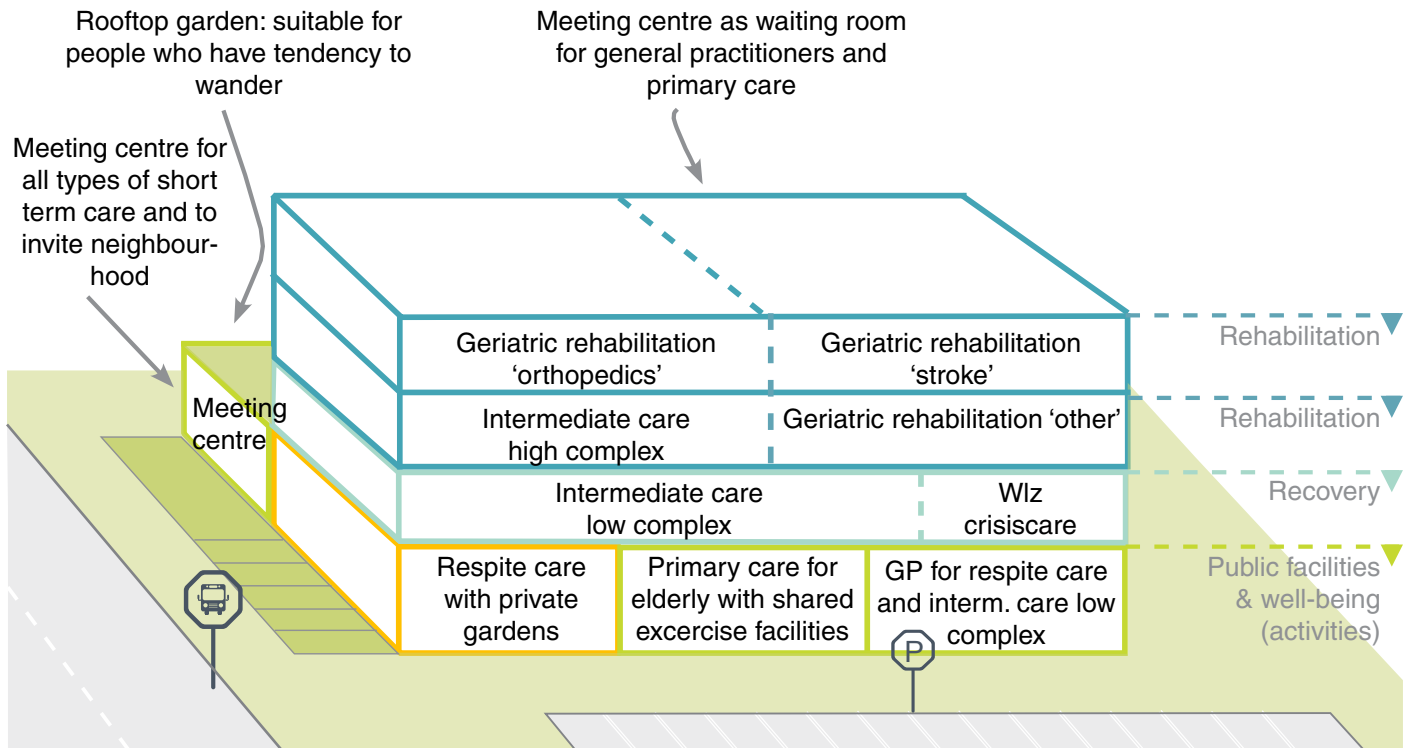Public facilities & well-being (activities)

Figure 13 | Threedimensional example of the functional program (own illustration)

6. FINDINGS RESEARCH QUESTION 3

Research question one and two have established that some level of integration of the care processes and spatial integration of six types of short-term care are possible. The third and last research question that is posed, is: '*In order to implement this combination of short-term care, to what extent can barriers to integrated care be overcome through organisational change?'*.

The interviews led to the identification of multiple barriers on the macro, meso and micro level. The barriers were identified based on the concepts in the model established in the literature research. The full overview can be found in appendix L.

6.1 EXAMPLES OF BARRIERS ON MACRO, MESO AND MICRO SCALE

It appears that many of the identified barriers on macro level are widely recognized. Words like 'jungle' and 'healthcare maze' are used when the regulations and funding are discussed, and jobs like the 'care broker' have been created to help people navigate the complexity (SIRM, 2016; Van Horik, 2018). Although the government's ambition is to place people on the right bed, some regulations counteract this ideal. This means for example that a person cannot be transferred from a geriatric rehabilitation unit to intermediate care because this route is forbidden (Appendix F-6; Vilans, 2018). Another example of complicated financial streams are the different payment types for respite care. Depending on the regular care need of a person, payment either comes from the Social Support Act, Long-term care Act, Health Insurance Act or through private contribution (Mezzo, 2018; Appendix F-12). Within those acts, different budgets can be used as well (Appendix F-12), depending for example on whether a person lives within the municipality where the respite care facility is located or not. This makes the financial situation regarding respite care unnecessarily complex, because the care process itself does not differ depending on where the money comes from.

Different types of barriers were identified on the meso level. What is remarkable here is that real estate is not considered as a barrier in literature, while most respondents identify that real estate influences the care process. First off, some buildings are not suitable for complex care. Elevators, rooms and bathrooms are too small to accommodate lying transport, the turning circle of large wheelchairs, or mobility aids (Appendices F-10 & F-12). Therefore, not all buildings can accommodate every type of client. This means that the characteristics of a building can influence the decision on whether or not to provide a certain service. An example is the location with a respite care unit, where the garden and ward are not closed off (Appendix F-12). This means that clients who are prone to wandering (due to dementia for example) cannot be accommodated at this location.
Secondly, the type of healthcare professionals is strongly linked to the type of location: expertise centres, regular nursing homes and residential care homes. That means that not all locations have the same level of expertise at their disposal, which also influences the type of care that can be provided. Consequently, the characteristics of the building or location influence the types of healthcare professionals that are present and vice versa, creating a vicious circle:

"Because before we really could not accommodate people in a wheelchair. At least, not if they were really bound to the wheelchair because we have small bathrooms. But now we have created a larger room with a bathroom for the disabled. And as we are getting specialist nursing assistants now, we want, we will probably grow towards more complex care, so we will also work with hoists and that sort of thing. That was not possible before, because we didn't have the right personnel. Because a regular nursing assistant is not allowed to do that."
- Respondent on respite care (Appendix F-12)

Another factor that is mentioned by several respondents is that location choices affect the reach of the target population.

Concentrating care services leads to a smaller reach and as a result a care provider can lose potential customers to its competitors. This results in a loss of income.

The micro level yielded a couple of behavioural barriers from both healthcare professionals and clients. In addition, it was found that respondents believe that certain characteristics of people or target groups constrain the level of integration that is possible:

"Respondent: "Screening [crisis care] [...] should not be placed together with people who, how should I say it, are going on vacation, for relaxation, go on vacation with family. You should not put them at a screening unit. Those people [respite care clients] will become scared. Because if someone wrecks things and those sort of things…"

Interviewer: "You don't want them as neighbours?"

Respondent: "You shouldn't want that."
                                        - Respondent on crisis care

6.2 FOCUS GROUP SESSIONS

Two focus group sessions were organised to discuss a selection of the identified barriers for two reasons. The first is to determine the validity of the results. Participants were asked to discuss the barriers in order to determine if the barrier is in fact an obstacle to integrated care. Barriers were identified based on opinions of individuals, and it is possible that one person conceives something to be a barrier while a group does not. Reasons could for example be misunderstanding or resistance to change.
The second reason is to make participants aware that optimisation of the current situation is possible and realise that change is necessary. This involves change management.
Change management literature does not agree upon a model which accurately depicts the steps towards organisational change. However, Lewin is considered as a key author in the field. According to him, the reason that an organisation is where it is at, is because there are driving and opposing forces that determine the status quo. In order to change, the balance between these forces must be adjusted (Lewin, 1943, in Burnes, 2004). Furthermore, his 'field theory' implies that individuals conform to the perceptions, feelings and actions of the group he or she belongs to (Allport, 1948, in Burnes, 2004). This means that the driving and opposing forces that a group encounters influences individuals. Therefore, the group is the unit that should be the focus of change (Lewin, 1946, in Burnes, 2004).
Lewin also states that change requires action (Lewin, 1946, in Burnes, 2004). The best solution must be found rationally through analysis, but it is just as important to create a so-called 'felt-need' from a group: the inner realisation that change is possible and also necessary (Lewin, 1946, in Burnes, 2004). Another term used in scientific literature is 'organisational readiness for change', which comprises of commitment to change and a shared resolve to bring about the change (Weiner, 2009). These theories were translated into a three-step model, which includes unfreezing, movement and refreezing. Unfreezing is destabilizing the status quo. Movement is the iterative step of research and action so that change is achieved. Refreezing is the third step, which involves ensuring that what is changed becomes the new status quo (Lewin, 1947, in Burnes, 2004).
Throughout the years, Lewin's work has been criticised. The model is accused of not representing the complexity of reality. The model is linear while behaviour is iterative, and organisations are in a continuous state of change (Kanter et al, 1992, in Burnes, 2004). Unfreezing the status quo therefore does not match reality completely. These downsides aside, what Lewin proposed is that action needs to be taken to convince people of the need for change, and that idea is undisputed in new change models. In order to realise the integration and concentration of short-term care, participants were therefore asked to discuss the barriers and find solutions for them.

For the focus group sessions all respondents from the interviews were invited because they can validate the findings that are based on their input during the interviews. Two additional people were invited because they represent a general practitioner's office (not present due to other appointments) and a day centre. A manager from the real estate department was invited as well to offer his view on the matter from a real estate perspective.

The first focus group session was set up differently from the second. The first session had a limited number of participants, and therefore it was decided to validate some issues related to the other research questions. In the second session, a selection of six barriers was discussed amongst the group. Because of the limited time available, the following themes were focused on:
•   Funding on macro level
•   Vision of the organisation
•   Real estate/location
•   Behaviour of clients
•   Behaviour of healthcare professionals

They encompass barriers on macro, meso and micro level. One macro barrier was included with the goal to make the participants aware of how they deal with barriers that they cannot change. The barriers 'vision of the organisation' and 'real estate/location' were chosen as meso barriers, because the vision of the organisation is the most basic principle on which decisions are made. Two real estate barriers were included because it appears that it is an important factor although the literature does not acknowledge it. The behaviour from two user groups was added to represent the micro level. An overview of the barriers is shown in table 8.

Barrier	Theme
The current buildings of the care provider are not optimally aligned with the requirements of short term care (e.g. appearance, type of rooms for clients and personnel)	Real estate/location
In the expertise centres all required disciplines are present, but the locations are too expensive, or not suited to house all types of short term care for another reason	Real estate/location
Integration of short term care is not possible because...clients with different indications who are put together will demand the same treatment that a neighbour with a different indication receives, which is not financially possible	Behaviour of client
Integration of short term care is not possible because...a mix of clients with different indications make it too difficult for practitioners to give everyone the care that is allowed	Behaviour of healthcare professional
Client centred short term care is not possible...because funding is based on what the average person of a certain target group needs, and not on the basis of the need of an individual	Funding on macro level
Short term care is currently designed in a mostly similar manner as long term care, and not based on the way things are done in the division Home (home care, primary care)	Vision of organisation

Table 8 | Barriers that were addressed during the focus group sessions, derived from Appendix L

6.3 SIX BARRIERS AND SIX SOLUTIONS

In tables 9 and 10 the six barriers are listed. The tables include an overview of the reasoning behind why a barrier is considered one or not, and which solutions are offered by the participants. These elements are explained below in more detail and are derived from Appendix M.

Macro barrier

The barrier that originated from the macro level is accepted as a given by the participants. They try to put the client central within the boundaries of the system, and believe that the government and the health insurers are the stakeholders that have to power to instigate the change.

Meso barriers

The participants do not consider the fact that short-term care is currently designed similarly to long-term care as a major problem. On most locations, they feel that everything's arranged quite well already. Remarkably, the participants actually seem to think otherwise based on their discussion, as they indicate that they prefer to create a distinct identity for short-term care that is not similar to long-term care. They also state that the type of healthcare professionals working on long-term care is very different from the type working for short-term care. Participants prefer to have separate teams for each department, because the mindset and competences differ. Another distinction that the participants make is between the care environments. Short-term care needs to be focused on recovery and not on being comfortable. Therefore, it seems as if a clear distinction between the types of care is what they actually strive for, and that they see room for improvement compared to the current situation. It gives the impression that they do not want to be too negative towards the current situation, and therefore do not consider it a major problem that short-term care is modelled somewhat after long-term care.

From a real estate perspective, it is important to concentrate short-term care to be able to create a distinct identity. Participants are unable to provide a clear answer to which extent concentration should take place. From a business perspective, it would be most efficient to combine short-term care in one location, but the vision of the organisation is to provide care close to home. Clients also prefer to receive care within their village, city or at least municipality. Participants do frequently mention three locations within two municipalities as ideal locations for short-term care. They are central development locations within the region and are easily accessible by car and public transport.

Participants agree that establishing the right care environment is very important. With a building, an identity can be created that matches the care environment. This creates the right expectation for clients and relatives. Currently, the identity of short-term care does not reach further than the unit. The building in which a short-term care department is located conveys the image of long-term care and elderly living. Therefore, real estate is currently a barrier but has the potential to add value through creating the right identity. Participants have indicated a number of things that can help establish the correct identity, see research question 2.

Micro barriers

The two selected behavioural barriers are both accepted as such. However, participants quickly found solutions to both of them. The behavioural barrier of the healthcare professional can be overcome through clear communication and provision of information. Participants acknowledge that it is more complex to treat clients with different indications, but personal digital files can help the practitioners in determining how much treatment is financially allowed.
The behavioural barrier of the client may be overcome through expectation management. Currently, some clients demand the same treatment and make a

Barrier	Theme	Y/N	Why a barrier (or not)?	Solution	Theme
Client centred short term care is not possible... because funding is based on what the average person of a certain target group needs, and not on the basis of the need of an individual	Funding on macro level	☑	• Funding is indeed arranged like this • Hard to change as an organisation • 'Plus packages' are not offered as option by health insurers	• Client centred within the boundaries that are set • Align priorities with the client • Ensure good care after the stay	Work within the boundaries
Short term care is currently designed in a mostly similar manner as long term care, and not based on the way things are done in the division Home (home care, primary care	Vision of organisation	☒	• Not seen as a problem because some similarities are fine	• Establish a clear care environment • Create a clear identity based on the work processes in the division Home	Identity
The current buildings of the care provider are not optimally aligned with the requirements of short term care (e.g. appearance, type of rooms for clients and personnel)	Real estate/ location	☑	• Short term care wards mostly have a temporary look, but the whole building has a long term care image	• Concentrating short term care • Creating its own identity (physically) • Create a building with specific facilities like a gym, rooms with a kitchen and enough parking space and facilities for visitors	Identity

Table 9 | Overview of findings of three barriers (derived from Appendix M)

Barrier	Theme	Y/N	Why a barrier (or not)?	Solution	Theme
In the expertise centres all required disciplines are present, but the locations are too expensive, or not suited to house for all type of short term care for another reason	Real estate/ location	±	• Mainly an issue because the consequence is that care is concentrated and not available close to home • Also issue because it's not the right expertise • Not neccessarily too expensive	• Concentrate some functions at an expertise centre based on reasonableness (what is too far for a client?) • Pay attention to the occupancy rate • Redesign the businesscase	Local vs. regional
Integration of short term care is not possible because...clients with different indications who are put together will demand the same treatment that a neighbour with a different indication receives, which is not possible financially	Behaviour of client	✓	• Clients indeed do this • Additionally problematic because long and short term care are mixed; clients demand to stay at the long term care ward and refuse to go home	• Separate short and long term care • Make it clear from the start what the expectations and possibilities are • Keep repeating this during the stay • OR: Mix everything as long as it's financially feasible in the end	Expectation management
Integration of short term care is not possible because...a mix of clients with different indications make it too difficult for practitioners to give everyone the care that is allowed	Behaviour of health-care profes-sional	±	• It is difficult but possible • Some practitioners already work with clients with different indications	• Ensure good communication and provide clear information • All use the digital information system • Ensure that people have the right mindset	Communication

Table 10 | Overview of findings of three barriers (derived from Appendix M)

comparison with their 'neighbours' from long-term care. Participants state that if short and long-term care are separated, this is no longer a problem because clients cannot experience the life of a person in a residential group from up close. It is questionable if this is truly the case. A building can facilitate the management of expectations, and consistent communication about the possibilities is important as well. However, the underlying question is why clients do not want to return home in the first place, and/or why family refuses to take clients back. Based on the interviews and focus group sessions, it seems as if aging in place is not always the preferred option for two reasons. One of the reasons that respondents mention is that one of the consequences of the healthcare reform is that many people are not eligible for nursing home care. Some of these people still need complex care, which is thus increasingly provided in the home situation. Part of that burden falls onto the informal caregivers. They indicate that they are heavily overburdened. When an elderly person is admitted onto a short term care unit because of an incident/worsening state of health, informal caregivers see this as the proverbial straw. Therefore, examples exist of family terminating rental contracts of the homes of the elderly, dropping of clothes at the nursing home, and refusing to pick up their family member (Appendices F-12; F-13; M). The second reason that is identified through interviews and focus group sessions is that some elderly are very lonely at home (Appendices F-11; 13; M). When they experience life at a nursing home with elderly, they enjoy the social contact and do not want to go back to being lonely. Therefore, this research proposes to address these two issues, separate long and short-term care, and create a clear identity for the building in order to remove this barrier.

Another solution that was suggested with regards to the problems related to the differences in treatment, is that the organisation can provide equal treatment for everybody, provided that it is financially feasible in the long run. This would eliminate the differences between clients, but complicate financial streams.

6.4 CHANGE MANAGEMENT

The second goal of the focus group sessions was to introduce the findings from this research to the participants and instill a realisation that change is necessary. What became clear is that some people already were in favour of a separate location for short-term care. Others initially believed that the steps that were taken to create a distinct identity on department level were enough. After showing the presentation of the findings and some discussion with other participants, it seemed that they came to the realisation that a separation from long-term care would be best. They also realised that a building still conveys long-term care even if a department has a temporary identity, which is not ideal.

What is notable is that most of the participants are managers. However, they asked the researcher if the ideas would be presented to the board and directors. They encouraged showing the image of the short-term care building, because otherwise nothing would happen with the idea. Another participant also mentioned that top management support is needed to achieve change. He has indicated several times to the board and directors that developing a short-term care centre would be a good idea, but he has not been successful up till now because he could not create top management support (Appendix M).

During the focus group sessions, it became apparent that participants had difficulty with thinking from the perspective of the client (micro level). According to them, this is due to a lack of research about the preferences of clients.

Participants tried to empathise with what a client would want, but they mainly stuck to the idea that good care within the boundaries of the system will result in a happy client. Related to this observation and the finding that clients do not want to go home, is that participants seem to be of the opinion that a care environment always includes a certain degree of hospitality. The definition differs between long and short-term care, because they

do not assume that hospitality equals comfort (relaxation). Some respondents even indicate that clients should not be made too comfortable, because that counteracts the goal of active recovery and return home (Appendix F-6;10). This probably also has to do with the problem of people refusing to go home. Therefore, creating a comfortable environment might be avoided in order to prevent the problem from getting worse. Since the focus on recovery is a good reason not to focus too much on comfort, hospitality needs to be defined differently for short-term care. This requires more research into the client's requirements.

The focus group sessions also brought to light that every manager seems to be very accommodating to change, but in reality seem to put their own type of care or location first. They hardly view the matters from the perspective of the whole organisation (meso level) and try to safeguard the care process of 'their' type of care. The following example illustrates what is meant: during the second focus group session, participants were asked why people with a need for care were called client, resident, guest, rehabilitant and patient respectively. The group discussed this, and agreed that resident was not the right terminology for short-term care because it evokes a feeling of permanence. Some people suggested client as the best option for people who need short-term care. However, this was met with some resistance. For people who need geriatric rehabilitation, the word 'client' might create the expectation that they are a customer and can demand certain things. The word rehabilitant on the other hand suggests that certain things (active rehabilitation) are expected from the person that requires care. For other types of short-term care however, the term rehabilitant is too strong, because care is not about rehabilitation but recovery. Comparing this observation with process management literature, it looks like the managers view 'their' type of care or location as their 'core value', the thing that must be safeguarded at all costs (De Bruijn, Ten Heuvelhof & In 't Veld, 2010). Change management efforts should therefore focus on designing a process

in which all participants feel like they can present ideas on a meso level while protecting their core values at the same time.

Based on the observations of the focus group sessions, the power/interest matrix from Mendelow (1991) can be used to illustrate how stakeholders can be managed (in this case during a change management process). First, the interest of the stakeholders (clients, management, upper-management) has to be determined, see figure 14 (Mendelow, 1991, in Winch, 2010). This shows that the three groups have a comparatively similar level of interest in how care is provided. The second step is to determine how much power each stakeholder group has. Based on the absence of information about what clients prefer and the indications from managers that their ideas are only accepted and executed if there is upper-level management support, it appears that these two groups have a low level of power. In order to create more client centred care, clients can be given more power in the decision-making processes. Besides this, the managers' knowledge can be tapped into for the development of ideas on the meso level. Their level of power should rise as well.

6.5 CONCLUSION

The third research question was as follows: *'In order to implement this combination of short-term care, to what extent can barriers to integrated care be overcome through organisational change?'*.
Analysis of interviews show that barriers exist on macro, meso and micro level. Participants of the focus groups indicate that, at least for the selected barriers on meso and micro level, solutions can be found. Barriers identified on macro level cannot be properly addressed by the care provider, because other organisations like health insurers have that power. Emerging themes on the meso and micro level are that barriers can be solved by creating the right identity and expressing the right expectations verbally and visually.

Based on the responses from the participants, it seems that organisational change consists of several steps which are essentially about creating the right expectations through communication and real estate. First, a distinction and thus separation between long and short-term care has to be made throughout the organisation. Buildings should express the short-term care environments through its design. Then, expectations need to be communicated clearly and consistently to both healthcare professionals and clients. This way, behaviour can be adjusted so that combining care on one location is possible.

From the perspective of change management, it seems as if the protection of 'core values' is important. The management level has clear ideas about what would create better care, but currently do not have a high enough level of power to instigate change. The preferences of clients have not been identified yet through research, so research is needed in order to provide client centred care.
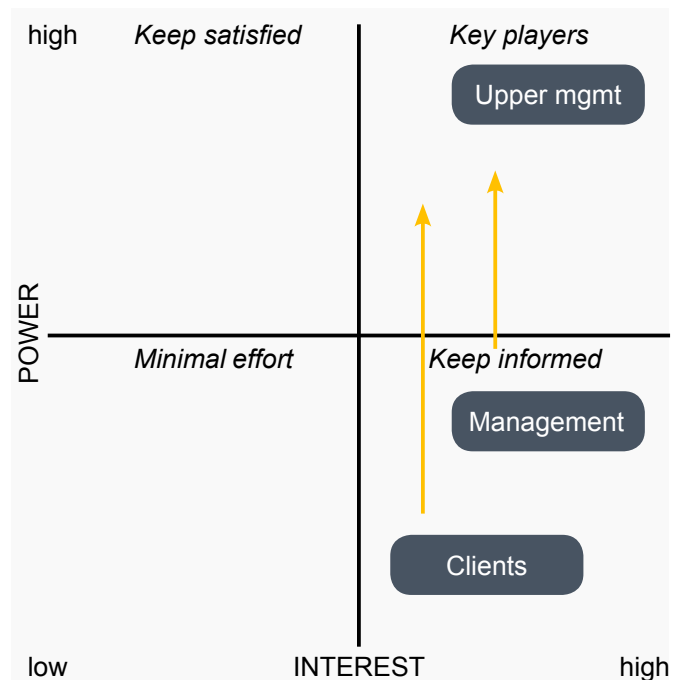

Figure 14 | Power/interest matrix with current situation in blue boxes, and yellow lines indicating how the power should be changed (own illustration based on Mendelow, 1991 in Winch, 2010)

7. CONCLUSION

The aim of this graduation research was to gain insight into the possibilities and prerequisites of optimizing short-term care processes in order to 1) establish to what extent integration is possible, and 2) to determine a strategy for real estate alignment and 3) to define the necessary steps for organisational change. For this purpose, the following main research question was determined: *'Which types of short-term care can be combined for integrated care, and what are the requirements for real estate and organisational change?'.*
A health-related care and service provider that operates on a regional level was chosen as the case, and six different types of short-term care, respectively intermediate care low complex; high complex; palliative, geriatric rehabilitation, respite care and Wlz crisis care were the focus of the research.

Findings show that, with the exception of intermediate care palliative, all of the short-term care types stated above can be combined. The degrees of integration between the possible combinations differ due to the number of similarities and differences. The strongest connections from a care perspective exist between intermediate high complex and geriatric rehabilitation, and between intermediate high complex and Wlz crisis care. Findings indicate that full integration is not possible because the client characteristics are too diverse. However, some intermediate levels of integration can be aimed for.

Through an analysis of the current situation, it was established that short-term care should have a distinct identity that is not similar to long-term care. A building exclusively for short-term care can facilitate expectation management towarsd clients and family, by visualizing the care environments of short-term care. The self-reliance of clients can be stimulated by for example a gym facility and small kitchens in the clients' rooms.

Some level of vertical integration may be achieved if a day centre, a general practitioner and primary care treatment centre are located in the same building as short-term care.

Concentrating short-term care within the region may lead to more efficiency and higher quality of care due to the concentration of expertise. On the other hand, clients prefer care close to home. Participants gave the advice to concentrate care in two centres within two regions in order to balance this tension.
While some level of horizontal and vertical integration seems possible, the interviews yielded a number of barriers to integrated care on the macro, meso and micro level. A few of those were addressed during focus group sessions, and participants indicated that the meso and micro barriers could be removed through organisational change. The most important steps consist of creating the right expectation through communication and real estate. Process-wise, it is recommended to safeguard the core values of each participant and to give the management level and clients more power in the decision-making process in order to stimulate good ideas and develop client-centred care.

8. DISCUSSION

The findings of this research indicate that all types of intermediate care, geriatric rehabilitation, respite care and Wlz crisis care can be integrated to some extent, along with a general practitioner, day centre and primary care treatment centre. Concentration of services on a location or within a building that is not associated with long-term care is recommended. Concentration can result in more efficiency in the care processes and a higher quality because of more accessible expertise. From a real estate perspective, developing a building for short-term care can create a short term care environment that promotes the right expectations for clients, family and healthcare professionals.

8.1 CONSISTENCY WITH LITERATURE

One of the challenges was the limited information that was available about intermediate care at the start of this research, which necessitated interviews in order to gather more information about the subject. A few months into the process, more research became available. While the more common approach is that data from interviews is checked for consistency with literature, the approach for this research was to check literature against the data. However, it appears that a lot of the information is consistent. This likely means that the organisation that is studied is quite typical of other care providers.

The research of Van der Zwart & Van der Voordt (2016) about the added values of hospital real estate was applied to health-related care and service providers. Although these two types of organisations differ, the values were defined broad enough to be applicable to both.
What seems to be different however, is that the value 'support image' for health-related care and service providers is not so much about attracting clients, but mainly about ensuring the right expectations through the use of real estate. Respondents indicated that communication alone was not enough, and that a building should show the appropriate care environment in order to stimulate clients to go home. Therefore it looks as if the value 'support image' can be specified further into 'support care environment' for the health-related care and service providers.

Scientific literature did not provide an appropriate model of barriers towards integrated care. While many identify the concept of fragmentation as a barrier, there is a lack of a validated and comprehensive model which identifies barriers on the macro, meso and micro level. Therefore, a model was designed based upon literature findings and the respondents from the interviews. What became apparent from the interviews is that real estate can be a barrier towards integrated care. Existing literature does not value the importance of real estate, and therefore further research can be done on what precisely the impact is of real estate in integrated care processes. Literature also does not consider the care environment as a barrier towards integrated care, while respondents do. The care environment is used as the most important indicator of the characteristics of clients and the type of care that is provided. The concept is therefore used to demonstrate the differences between the types of care, and should be considered as a barrier for this reason

8.2 CONSISTENCY WITH POLICY AND PRACTICE

The most important issue related to consistency with policy and practice, is that practice does not always match what policy describes. All types of short-term care (excluding intermediate care palliative) have the goal that clients return home. In practice, this is not the case. A couple of respondents (Appendix F-13;16) indicate for example that most of the Wlz crisis care clients do not return home. They even call it the fast-track lane into the nursing home.

Not only Wlz crisis care but also intermediate care high complex has a lot of clients that cannot return home after a seemingly temporary change in care need: only one-third of intermediate care high complex clients return home (Vilans, 2018). Therefore it can be concluded that for some types of short term care, policy and practice are far apart. The question that arises is whether policy should prevail over practice or the other way around. In this research, the regulations are adopted for the real estate concept. Regulations define how things should be, and health insurers are actively combatting improper use of short-term care beds (see Appendix A).

The care provider is however advised to pay close attention to potential changes in regulations or policies, because if those shift towards what happens in practice, integration of Wlz crisis care and intermediate care high complex with long term care should be considered as the best option.

8.3 METHODOLOGICAL CHALLENGES

This graduation research has a few methodological limitations. First, this research is based on the assumption that integration of care has several benefits, which is translated into the concept of a short-term care centre. However, literature about the benefits of integrated care does not specifically address integration of short-term care. Rather, it covers for example vertical integration or integration around one disease. If therefore the assumption is wrong, then the real estate strategy is likely to be wrong as well.

Secondly, possible combinations of short-term care were established on the basis of five criteria. Of course, other criteria could have been chosen, which would have altered the outcome. However, the goal of the first research question was to show that the six types of short-term care have elements in common, in order to make a fitting translation to real estate. It was not meant to define a new type of care, which requires a deeper and more quantitative analysis of the similarities and differences.

Thirdly, due to the available time for this graduation research, one interview for each type of short-term care was conducted. This limits credibility because of a one-sided perspective. Because of the research topic, quantitative research methods were not possible, limiting the extent of triangulation. Research was conducted within the boundaries of one organisation, limiting the transferability of the data due to the specifics of the organisation and context. Real estate recommendations are made based on short-term care processes, but financial feasibility is not considered. This requires further research.

A fourth limitation is that the real estate advice is limited to a global functional program. It was decided not to provide more detail, because the choice of whether or not develop a short-term care centre is left to the care provider. The organisation has to balance different interests, and look at the financial, real estate and organisational consequences. The global functional program is therefore meant to convey the possibilities, not to present a completely feasible plan.

9. REFLECTION

9.1 PROCESS

This graduation process started with the decision to join the new Cross Domain Health lab. About two things I was unsure: which topic to choose, and what was required of me as student in this new, interdisciplinary lab which had a lot of great ideas but no track record.

One of the reasons why I chose to immerse myself into the healthcare sector is because it is so dynamic and complex. That was also the reason why it was difficult for me to choose one topic. A topic that not only would keep me interested for a whole year, but also one that is relevant to the care provider for which I was going to write an advice. I wanted to find a topic in which real estate could be beneficial for multiple aspects.

Something that has cost me a lot of time is that I changed my research plan all the time, also after the P2. Not knowing what you exactly want to research, makes it impossible to start retrieving useful data.
After a while, my process reminded me of what I learned during the first year of my master: the strategy theory of Mintzberg (1978). I started with an intended strategy of focusing on intermediate care only, but after a couple of interviews I decided that I would achieve more if I researched all types of short-term care. Although the general idea remained quite the same, the focus changed multiple times, and respondents gave me new ideas. This taught me that you can plan a lot, but that you should also allow space for new and better ideas.

The second thing I was unsure about was how the idea of an interdisciplinary lab would turn out in reality. The road has not been without its bumps, but for me it was very valuable to have a group of students that have each other's backs and look at things from a different perspective. The collective passion for healthcare (users) gave me the energy and optimism that our research and designs can have a positive impact on people.

Healthcare regulations and policies, literature on real estate and integrated care, in depth interviews and focus group sessions were the main ingredients of this research. Because I broadened my research topic after the P2, I only had time to organize focus groups after the P4. I am glad that this was allowed, because it helped me with developing more concrete answers on issues that I was still unsure about. I was feeling quite apprehensive at the start of each session: what if no one liked my idea? However, I found that everyone was quite convinced and supportive of my findings and real estate proposal, and the willingness of almost all respondents to invest time in helping me showed me that they at least consider short-term care (and thus my research) to be an important topic.

One of the lessons that I learned is that there is a fine line between choosing a relevant topic that is new and a topic that is too new. You need some scientific research for the problem analysis and literature research. Because intermediate care is such a new product, research only started to become available right before my P3. However, it was nice to see that the conclusions that were drawn by large healthcare institutions are very similar to mine.

9.2 RESEARCH APPROACH

My research approach consisted of three basic elements: understanding the core business and deciding to what extent integration is possible; determining how real estate can add value to these new and more integrated processes; and establishing the most important changes that the organisation needs to make in order to realise this new way of working. Qualitative data analysis always relies on the interpretation of the researcher, and it cannot be said that the solution that I propose is the perfect solution. Especially for care providers there is a large tension between business and client perspectives. There are always drawbacks to a plan, and an important limitation of my research is that no financial

impact analysis was performed. However, there are opportunities regarding optimising the workforce, the value of real estate, quality of care and the chance to strategically reposition the care provider by making it an expert in short-term care. That makes this research significant for the care provider.

9.3 RESEARCH TOPIC

Position within the graduation laboratory

The Cross Domain Health lab is based on three pillars: healthcare, the built environment, and users. This research concerns the possibility of combining short-term care processes (healthcare), and determines a functional real estate program that is aligned with these processes (built environment). According to literature, integration of care should benefit three types of user: clients, healthcare professionals and the organisation. Therefore this thesis covers all elements of the lab.

Part of this graduation process was the creation of a docufilm and board game with the other students of the laboratory. The docufilm was a medium to let users speak for themselves. Because of privacy issues it was difficult to film actual clients, but managers and other employees were willing to explain more about the chosen research topics of the students. It gave insight into practice, while in the first stages of research it is usually only about making sense of scientific literature. Besides this, it allowed me to develop a new practical skill: editing movies.

The board game was devised to combine the conclusions from the six theses. The game aspect lets users (employees of the care provider, clients, family et cetera) think actively about the conclusions that were found. This can create some ownership of the ideas and will hopefully lead to real actions.

Position within Management and the Built Environment

The Cross Domain Health lab is, as it says, a cross-over between different domains within the faculty. This provided the possibility to choose from a broad range of topics, as long as it was related to healthcare. My research topic is about understanding the primary process in order to develop a strategic real estate advice. This is typical for real estate management and fits within the Management in the Built Environment master.

9.4 DISSEMINATION

Transferability

Although this research can be used as a first exploration of the possibilities for the care provider that was studied, it must be said that the conclusions cannot directly be transferred to other organisations. Other care providers have different organisational structures, cultures and different contextual circumstances. The characteristics of the care provider that was studies needs to be taken into account when aiming to transfer the results onto another care organisation.

Validity

Due to this research approach, some bias can exist in the results. Sometimes, only one person for each type of short-term care was interviewed. Preferably, this would have been at least three people for each type of short-term care so statements can be compared, but this was unfeasible due to time restrictions. Secondly, bias can exist because only people with a managerial position were interviewed. For the same reason stated above, it was not feasible to talk to all types of healthcare professionals. However, most of the data that was retrieved through semi-structured interviews is quite consistent with available literature and research, and information about the healthcare sector in general. The

focus groups were used to add validity by discussing a few topics that were raised by individual respondents with the whole group.

Societal relevance

The underlying aim of this research was to provide higher quality care to clients while optimizing business operations through the alignment of real estate to the care processes. Fragmented, small scale short-term care units do not offer the best care environment and facilities. Clients are in a vulnerable position, so optimizing work processes and the built environment can have an important positive impact on them. More efficient business operations means that money can be spent on quality instead of inefficiencies. Besides this, personnel can be used more efficiently, which is especially important considering the difficulties in finding enough qualified personnel (RTL Nieuws, 2018). What is an added bonus is that with creating a short-term care location with a clear identity, healthcare professionals can be targeted more effectively. A respondent with a nursing degree was quite enthusiastic about the idea of having all types of short-term care together, because it is much more dynamic than long-term care. It offers the possibility to visit other departments to learn more (Appendix M). It could therefore become a new type of work environment in the elderly care sector which is appealing to a certain group that now rather works in hospitals.

Scientific relevance

This research is about how real estate can add value to accomplishing integration of short-term care. What was remarkable is that there is very little scientific literature on the impact or value of real estate for the health related care and service providers. Literature and government policies mainly discuss the financial side of healthcare real estate. An important finding from this research is that real estate can play an important role in creating an identity that corresponds with the type of care (environment) that is provided, but that it can also be a barrier to integrated care.

Besides a lack of literature on the added value of real estate for health related care and service providers, it also became apparent that there is very little to no literature on examples of integration of short-term care. With 'integrated care' being a buzzword in the scientific community, I expected to be able to find more research. This means that this research is one of the first to explore the possibilities of horizontally integrated short-term care, while also being one of few that looks at how real estate can play a role in adding value to the care processes.

Sectoral relevance

Since the announcement of the healthcare reform, real estate managers and consultancy firms have busied themselves with aligning real estate to the new healthcare processes. Care homes were transformed, sold or demolished, and the total number of long-term care beds have been brought down. Currently, short-term care is developing fast, and it seems that many care providers have not yet aligned their real estate to these new developments. This research can be viewed as the first exploration of the issues regarding short-term care in relation to real estate. It can give more clarity in the benefits and disadvantages of concentrating short-term care. Other care providers can take these ideas and fit them to their situation.

10. RECOMMENDATIONS

This chapter presents the recommendations of this research. They are based on the conclusions of the main research question and sub research questions. First, the recommendations for practice (the care provider that is studied) are presented. Then recommendations for future research are made, aimed at future students of the Cross Domain Health lab.

10.1 RECOMMENDATIONS FOR PRACTICE

This research has established that five types of short-term care can be combined within one building that should be specifically focused on recovery and return home. The following steps that the care provider can take consists of determining the feasibility from a real estate, financial, and behavioural perspective.

From a real estate perspective, two steps may be taken. First of all, it is important to not make a policy based on vacancy, but on vision. Short-term care should be considered as a full-fledged product. The focus should be shifted to putting the clients central, and to creating an optimal environment for them.
Secondly, the feasibility on portfolio level needs to be determined. Short-term care needs to be concentrated on one or two accessible locations. Which locations are suitable needs to be determined, also with consideration to the other healthcare services planned on those locations. Besides this, it is unlikely that the health insurers will approve of extra short-term care volume. This means that short-term care units need to be relocated, resulting in vacancy at multiple locations. How these locations can be redeveloped can be a topic for further investigation.

From a financial perspective, the consequences of this concept needs to be calculated. Combining short-term care results in different business cases, not only for the short-term care centre but also on the locations where short-term care units are removed. In an interview with one of the directors, the housing component of short-term care was discussed. According to the respondent, a lower amount for housing is paid for short-term care than for long-term care. As a result, business cases are currently only presumed to be feasible when short-term care is accommodated within a long-term care location, or when a large volume (>100 beds) is created (Appendix F-16). Actual calculations have not been made however, so this can be a next step in the development process.

From a behavioural perspective, four recommendations for further research are made. First of all, the topics of overburdened informal caregivers and people living at home while that is nearly impossible kept coming up during interviews and focus group sessions. It leads to clients and family demanding that clients do not have to go home. A clear identity of a building may help manage expectations, but these underlying issues need to be tackled as well. The care provider may look into the possibilities of providing more assistance to informal caregivers before the situation escalates with families refusing to take clients back into their care. Research into residential concepts that replace care homes may also be worthwhile, because it seems as if there is a group that, contrary to what the government is advocating, does not want to age in place. The care provider may find business opportunities in the gap that resulted from the closure of many care homes.

The second recommendation is to do research on the preferences of clients and their family, because it appears that this has not been done yet. During the focus group, participants tried to empathise with clients, but admitted that they did not know what clients prefer because they have not asked them. Identifying the wishes from clients is therefore an important step in the feasibility process.

The third recommendation is to focus more on what it takes to integrate the different services within the organisation in order to achieve client-centred care.

Respondents and participants mainly looked at the presented issues from the perspective of the type of care or location that they are manager of. Only occasionally did the participants step into the position of the client and organisation as a whole. Giving the management level more power may stimulate them to apply their expertise into developing better care or more efficient business operations from the bottom-up.

The last recommendation that is related to behaviour, is to visit 'best practices'. During the final weeks of this research, three examples were identified in which real estate adds value to the primary process through its design and focus on recovery. The examples are:

- Care and recovery hotel Uden's Duyn by BrabantZorg in Uden
- Rehabilitation centre Adelante in Hoensbroek
- Rehabilitation location Laurens Intermezzo Zuid (see figure 15).

A representation of the locations are visualised in figure X. What is noticeable is that the buildings look nothing like typical nursing homes or residential care locations. They have a similar level of luxuriousness as a hotel, and boost facilities that focus on recovery, such as a gym or swimming pool. One of the locations has a buffet-style restaurant, which offers clients a selection of food and drinks and stimulates clients to 'prepare' their own meal (thus stimulating self-reliance).
A project visit to one of these locations with stakeholders that have deciding power may create collective commitment for the development of a short-term care centre. It might also help solve questions about certain aspects of feasibility.

10.2 RECOMMENDATIONS FOR FUTURE RESEARCH

The Cross Domain Health lab is an interdisciplinary graduation studio, so recommendations for both design and real estate management students are suggested. The functional program that was established in the second research question can be part of the design brief for design students. They are recommended to do more research into what the clients prefer, and what the design elements are of a recovery-oriented environment (also known as therapeutic care climate).

For students of the Management in the Built Environment master, the same recommendation as for practice is made: determine the feasibility of this real estate concept for integrated short-term care. The real estate, financial or behavioural aspect can be researched, or any combination of the three. What is important as well, is to get input from more healthcare professionals (not only managers) and clients, and research expectation management in more detail.
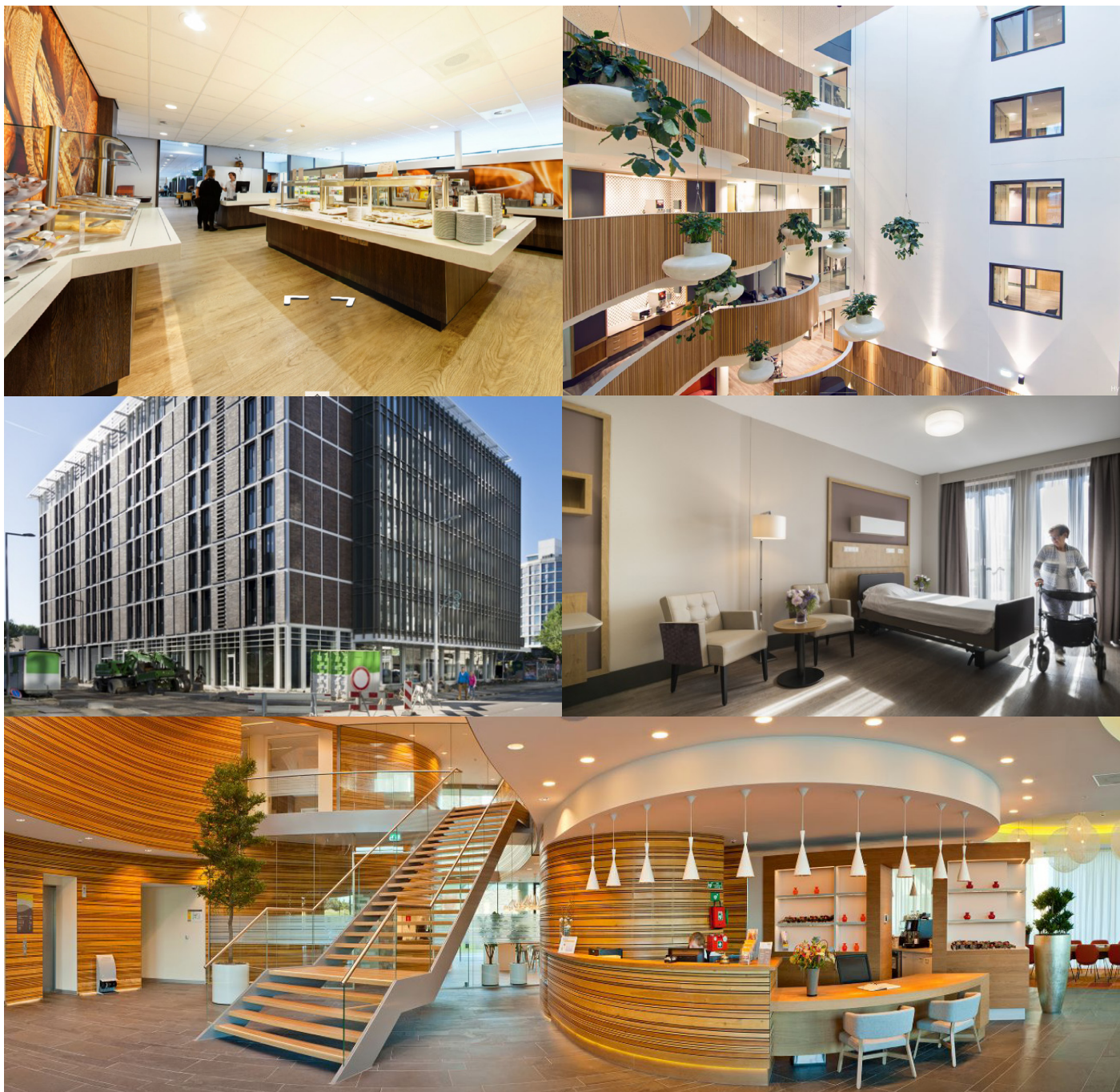
Figure 15 | Possible 'best cases' of short-term care locations where real estate supports the image (see Ch. 11 for references)

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