The effect of place characteristics on the quality of life of elderly living in Integrated Service Areas

Esra van der Zaag
Master thesis Socio-Spatial Planning
University of Groningen
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Colophon

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Author	Esra van der Zaag
Email	e.van.der.zaag@student.rug.nl/ esravanderzaag@hotmail.com
Student number	S2407124
Master Program	Master Socio-Spatial Planning Spatial Sciences University of Groningen
Supervisor	prof. dr. ir. G.R.W. (George) de Kam
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Abstract

The possibilities for intramural living are becoming increasingly limited. This means more and more elderly (will) live independently. At the same time, these elderly are confronted with an increase in their vulnerability and an increase in the number of limitations. Therefore, the question within Western societies is no longer whether elderly people will live independently longer, but how the quality of life of elderly living independently will be maintained. The focus has thus gradually centred on maintaining the quality of life of elderly people living independently. Therefore, new and innovative interventions at the community level are needed, especially interventions that mix care, social support and housing measures. The so-called Integrated Service Areas (ISAs) are an example of such an innovative way to support elderly. Prior literature has already given a clear depiction of the effects of the ISAs. However, these studies are snapshots of the effects of the Integrated Service Areas. Time has passed and national policies have changed. Until now, there has been no research that has monitored the effect of the effect of place characteristics on Integrated Service Areas. This paper has therefore built upon the study of Pijpers et al. (2016) by investigating how place characteristics have influenced the Integrated Service Areas of Hengelo and Peel en Maas and the elderly living in these areas over the past five years. A questionnaire was send to all elderly of 70 years and older that live independently in the Berflo Es and Helden en Panningen. Data was collected on a broad range of quality of life indicators, ranging from physical and mental health to satisfaction with services and the quality of support networks. In conclusion, living longer independently is not dependent on the characteristics of the elderly or on strong objective indicators, such as accessibility of facilities. What has been found is that the factors that influence the living situation in both areas are also the indicators on which the areas score poorly. In Helden en Panningen this concerns the adjustments to the home and in the Berflo Es it concerns traffic safety. This corresponds with the idea that living independently longer is no longer about just living independently longer but that the focus has centred more on improving and/or sustaining the quality of life. In addition, this thesis found that throughout these five years, both areas showed a positive relation between the amount of homecare and the amount of informal care. However, this effect was significantly stronger for the Berflo Es than it is for Helden en Panningen. It is plausible that the difference between the Berflo Es and Helden en Panningen can be explained by the infrastructure of supporting and encouraging informal care. If the explanation does indeed lie in the provision of better care infrastructure, the local municipalities should further enhance communication between elderly, professionals and informal caregivers.

Key concepts: elderly, living longer independently, ageing in place, quality of life, Integrated Service Areas, place characteristics

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1. Introduction

1.1 Societal context and scientific relevance.

The population of the Netherlands is ageing. The share of elderly people (65+) is expected to increase from 16% in 2012 to 22% in 2025 and to 25% in 2040. This proportion will be even higher in rural areas. In some rural areas the share of elderly people will be around 30% (van Dam et al., 2013).

This increase in the number of elderly will demand considerable spatial tasks and will require new quality standards for the living environment (van Dam et al., 2013). This is the case because bodily changes and a declining degree of self-reliance often accompany ageing. In daily life this is, for example, reflected by the distance elderly can walk. Their range of action, thus, decreases. As a consequence, elderly will be more dependent on the supply of services in the vicinity of their home (Lager et al., 2016). This means that the physical environment has a significant impact upon elderly because they are reliant on their immediate locality for support and assistance (Buffel & Phillipson, 2012). It is therefore necessary to adjust the living environment in such a way that the quality of life of elderly is maintained. In recent years, Western societies have come to recognize this (Davies & James, 2011; Iecovich, 2014; Wiles et al., 2011).

Ageing in place has become a major policy goal in Western societies (Ball et al., 2004; Gilleard et al., 2007). This has several reasons. First, Western governments have promoted policies that foster ageing in place. They have done this foremost to lower the pressure on existing care services and the adjoining costs. Nonetheless, the governments also argue that they do so because ageing in place is often better for elderly people. They refer to global research that points out the positive relationship between ageing in place and social integration, social activities, physical and mental health and longevity (Anme & McCall, 2011; Brink, 1990). Second, most of the elderly themselves prefer to stay at home or in their own neighbourhood because this is a familiar environment (Davies & James, 2011; Lager et al., 2013) and fewer people find intramural living attractive. Elderly people feel that if they stay in their familiar environment, they maintain their independence, autonomy and their social connections (Wiles et al., 2012). Third, there is a decrease of places in care homes and, as a result, people have to age in place more often. For example, within the Netherlands the number of places in care homes has fallen sharply in recent decades from 150.000 in 1980 to 105.000 in 2005. This has also led to stricter admission criteria for care homes (de Groot et al., 2013). Due to all these reasons, fewer elderly now live in a care or nursing home. For example, in 1996 around 36% of the people aged 85 and over lived in a nursing home; in 2011, this share had decreased to 22% (de Groot et al., 2013). As a result, a transformation has been taking place in which societies have gradually replaced the traditional, large-scale intramural care by a more demand-oriented supply of welfare and care provided at home or in the neighbourhood. Therefore, the question within Western societies is no longer whether elderly people will live independently longer, but how the quality of life of elderly living independently will be maintained.

The focus has thus gradually centred on maintaining the quality of life of elderly people living independently, not only in the big cities but also in rural areas (Brink, 1990). Therefore, new and innovative interventions at the community level are needed, especially interventions that mix care, social support and housing measures (Lui et al. 2009; Menec et al. 2011). These interventions should, in addition, be a joint responsibility of private parties (including the

elderly themselves, but also housing associations), civil society organizations and governments at all levels.

The so-called Integrated Service Areas (ISAs) are an example of such an innovative way to support elderly. ISAs are (ordinary) neighbourhoods in which housing, care and social policies are integrated and in which providers of care, housing and services have made arrangements with each other to facilitate independent living of older adults for as long as possible (Harkes & Singelenberg, 2004).

Over the years, various studies within the social sciences have written about efforts to support ageing in place at the neighbourhood level (Ahrentzen 2010; Anme & McCall, 2011; Brink, 1990; Buffel & Phillipson, 2012; Evans 2009; Van Dijk, 2015). Some of these studies have specifically focused on interventions that improve the quality of the physical and social environment. They have focused on interventions such as adaptations to original homes, creating a safe walking environment or developing strategies for social inclusion (Eales et al., 2008; Oswald et al, 2010). These studies have thus looked more closely at how specific interventions in the environment can promote living longer independently.

Prior research has also investigated the effects of ISAs on local ageing conditions and on the elderly living in the ISAs (Bedney et al., 2010; Greenfield, 2013; Tang & Pickard, 2008). Researchers often do this by comparing ISAs with non-ISAs. Brown et al. (2003) for example did not find any clear differences between areas with and without services integration in their research. They concluded that elderly in ISAs are not more satisfied with care than elderly in non-ISAs (Brown et al., 2003). In contrast, Pijpers et al. (2016) did find a significant difference between ISAs and non-ISAs. They found that elderly who live in ISAs are frequently more satisfied with their current housing. These elderly more often believe that there is no need to move whereas older people in non-ISAs do.

However, literature has not only looked at differences between areas with and without services integration but also between areas with service integration. Pijpers et al. (2016), for example, have made a systematic comparison of urban versus rural approaches to services integration. Pijpers et al. (2016) analysed how these approaches are aligned with and address the advantages and disadvantages associated with urban and rural aging conditions. Furthermore, in a recent study, RIGO analysed how effective the ISAs were with reference to control areas. They found that some ISAs did better than others (Leidelmeijer, 2018). However, RIGO also concluded that although there are major differences in how municipalities give substance to the ISAs and how effective these are, on average the impression remains that the elderly in Integrated Service Areas live relatively longer independently than elderly in non-ISAs (Leidelmeijer, 2018).

Previous literature thus gives a clear depiction of the effects of the ISAs. However, these studies are snapshots of the effects of the Integrated Service Areas. Time has passed and national policies have changed. This makes it interesting to see how the ISAs have evolved and developed. Until now, there has been no research, to my knowledge, that has monitored the effect of the effect of place characteristics on Integrated Service Areas. Therefore, one cannot know if the effects are of a temporary or a permanent nature and which approaches are more effective over a longer period of time. By using the research of Pijpers et al. (2016) as a zero measurement, it is possible to analyse if and how the change in society and policies over the last five years have influenced the effects of ISAs on elderly. This paper therefore builds upon the study of Pijpers et al. (2016) by investigating how place characteristics have influenced the Integrated Service Areas of Hengelo and Peel en Maas and the elderly living in these areas over the past five years.

1.2 Problem statement and research questions

This research aims at getting a better understanding of how ISAs' effects on residents have evolved over the past five years. This research also identifies if these effects vary between ISAs in rural areas and ISAs in urban areas. In doing so, a comparative case study is presented of the place characteristics of two Integrated Service Areas: one in Peel en Maas and one in Hengelo. These two cases are compared with one another, so that differences and similarities between the cases become apparent. The findings of this research can contribute to scientific research but, even more importantly, it can contribute to the practical debate regarding the effectiveness of ISAs. On the basis of these objectives and the problem definition, the main research question is formulated as:

Primary research question

How have place characteristics influenced the Integrated Service Areas of Hengelo and Peel en Maas and the quality of life of elderly living in these areas over the past five years?

In order to answer the main research question, three sub-questions have been defined:

Secondary research questions

What are the effects of place characteristics on the quality of life of elderly living in Integrated Service Areas regarding living longer independently?

What are the effects of place characteristics on the quality of life of elderly living in Integrated Service Areas regarding their health and the use of formal and informal care?

How have these effects changed in the Integrated Service Areas over the past five years?

Place characteristics are present in every neighbourhood. However, in an ISA place characteristics are explicitly thought about. In an ISA the goal is to adapt the environment in such a way that it promotes ageing in place and elderly are able to live independently more easily. The municipalities of the ISAs have therefore chosen to develop and/or stimulate specific characteristics that will help facilitate ageing in place. However, in each area these characteristics may play out differently. This research therefore wants to find out what the effect is of the choices for certain characteristics on three themes: living longer independently, health and the use of formal and informal care.

These three themes were chosen specifically because of the research of de Kam et al. in 2012. In their research, the authors grouped the effects of Integrated Service Areas into three themes, which are independent living, health and the use of formal and informal care.

The authors first looked at the effect of ISAs on independent living because independent living is expected to be an important effect of the ISAs. De Kam et al.'s research gives two indications that elderly in Integrated Service Areas do indeed live independently for a longer time. De Kam et al. (2012), first of all, show that the percentage of elderly of 80 years and older that lived independently five years ago and still do now is higher in the pilot areas than in the

comparison areas (areas that are not a residential service area). Second of all, they explain that in Integrated Service Areas at least an equivalent number, and often a higher number, of elderly people use extramural AWBZ care (*Algemene Wet Bijzondere Ziektekosten: Exceptional Medical Expenses Act*) in comparison to the rest of the Netherlands. As a consequence, one can conclude that people in ISAs live independently for a longer time. Therefore, living longer independently is also included in this thesis.

This thesis will also investigate quality of life. This will be done for the following reason. The possibilities for intramural living are becoming increasingly limited. This means more and more elderly (will) live independently. At the same time, these elderly are also confronted with an increase in their vulnerability and an increase in the number of limitations. Therefore, it is not only important that elderly can live longer on their own in ISAs but also how ISAs can contribute to maintaining, and preferably improving, their quality of life. In addition, a higher valuation of life and a higher judged quality of present-day could be related to the wish to live longer independently (Butler & Jasmin, 2000). This thesis has therefore opted to research how quality of life can or might contribute to living longer independently. However, one could have also chosen to research how living longer independently contributes to quality of life. There is no fixed order to these two developments and both are equally interesting. However, a choice had to be made and therefore this thesis choose to see how quality of life will affect living longer independently.

When limitations and frailty increase, at some point elderly people need support and care to be able to continue to live independently while at the same time maintaining a sufficient quality of life. The various measures that local governments take to provide facilities to achieve this forms an important part of the arrangement of ISAs. Local governments especially try to postpone the use of care and try to substitute this care with lighter care or informal care and support. That is why informal and formal care are included in this thesis. Another reason is that in 2015 the Dutch government adjusted the Social Support Act (*Wet Maatschappelijke ondersteuning, WMO*) and municipalities are now responsible for all non-residential care. The Social Support Act is a Dutch law that imposes a duty on local authorities to provide various forms of support for people living at home. The principles on which the Social Support Act 2015 is based are independence, participation, broad approach to requests for help, customisation of support and lighter forms of support (van der Ham et al., 2018). As a consequence of these principles, local government try to postpone the use of (more intensive) care and try to substitute this care with lighter care or informal care and support. The care derived from the Social Support Act is thus intended to be additional to the help that people arrange for themselves and receive from family or friends. Since the Social Support Act now includes all non-residential care, it is interesting to see if this reform has influenced the effects of place characteristics on ISAs.

1.3 Structure thesis

The remainder of this thesis is structured as follows. In the next section, the theoretical framework and the conceptual model are presented. Within the theoretical framework theories on ageing in place, place characteristics and quality of life are discussed. This chapter includes the conceptual model, which illustrates the relations between the concepts that are examined within this thesis. Following the theoretical framework the methodology section elaborates on the research design, instrument, data collection process, data analysis and the ethical considerations. The findings of the data analysis are presented in the results section. The last chapter answers the research question, presents a discussion and includes the limitations of

this research. The discussion relates the findings to the existing literature that has been discussed in the theoretical framework.

2. Theoretical Framework

2.1 Introduction

This chapter outlines the societal context and the scientific background of this research. In this research, the assumption has been made that the effects of an Integrated Service Area are the result of an interplay between the (living) environment, the arrangement in an Integrated Service Area and the population. Therefore, these characteristics will be discussed thoroughly in this chapter. To understand this interplay, it is important to first gain some background knowledge on ageing and on Integrated Service Areas. In addition, this chapter gives an overview of how policy has changed throughout the years so that one can understand how this might have influenced the ISAs. Lastly, this chapter concludes with an overview of what has been discussed in prior literature. This overview is visualized in a conceptual model.

2.2 An ageing population

The population of the Netherlands is ageing. The Dutch National Institute for Public Health and the Environment (*Rijksinstituut voor Volksgezondheid en Milieu, RIVM*) defines ageing as the process in which the percentage of older people increases in comparison to the rest of the population (Volksgezondsheidenzorg, 2018). In the last two decades, the amount of people aged 65 years and older in the Netherlands rose from 2.1 million to 3.2 million. This is an increase of more than 50%. In the same period, the overall population grew relatively slowly by 10 percent. As a consequence, the share of elderly in the population increased. In 1997 this share was just over 13 percent; in 2017 it had increased to 18%. The population pyramids in figure 1 show this demographic development (figure 1). The main causes of the increase in the share of elderly are the declining fertility rate since the 1970s and the rising life expectancy.

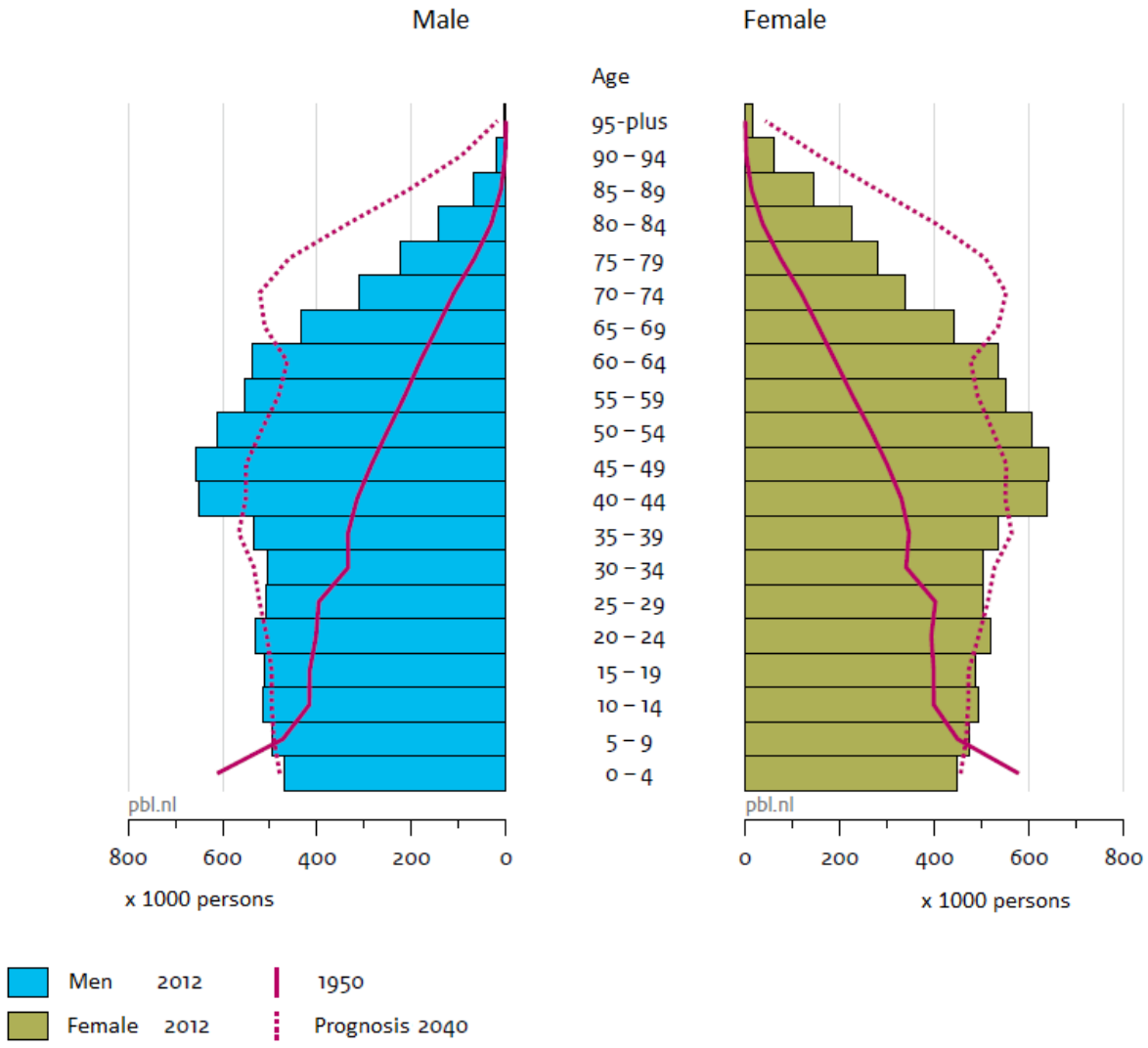

Figure 1: Population Pyramids **Source: CBS, 2012, in Groot et al., 2013, p. 10.**

Simultaneously, other demographic phenomena are also taking place. First of all, the composition and living arrangements of households have changed. The number of people living alone has increased continuously in recent decades, most strongly among the elderly population (Lange & Witter, 2014). At the beginning of this century, 81% of the people aged 75 years and older lived on their own. In 2017, this share had increased to 88% (CBS, 2017). In practice, this means that fewer elderly (can) depend on their partner or children, for example for help and informal care (van Dam et al. 2013). In this thesis, informal care is the umbrella term that encompasses voluntary work as well as family care (*mantelzorg*). Voluntary work and family care differ from one another in the sense that family care can be defined as "intense and long-term care given by laymen from the patient's direct social environment, springing from the social link between the patient and the family caregiver, not coming from an organised setting and not provided within the framework of professional social care" (Beneken Genaamd Kolmer et al., 2004, p.45). Family care thus takes place between people who already had a social link with each other before the need of care arose. Voluntary care, on the other hand, is provided voluntarily by someone who has no social relationship with the patient. Thus the characteristic that differs most between family care and voluntary care is the social relationship. In the rest of this thesis, the term informal care will be used to encompass both

family care and voluntary care. The terms family care and voluntary care will be used if it concerns only one of the concepts.

Second of all, the number of years that 65-year-olds on average are free of (moderate to severe) physical limitations has also risen in recent decades. This is a positive development in the light of policy efforts because it allows older people to live independently longer (van Dam et al., 2013). However, although older people between the ages of 65 and 75 are still very active, out-of-home and mobile, the average number of trips per day and their average length decreases rapidly from the age of 75 onwards. A lot of elderly above 75 move less often and (can) only walk short distances. This certainly applies to the out-of-home leisure activities. Thus, one can see that as the elderly grow older, their daily action space becomes smaller and smaller. This makes the quality of the direct residential environment more important (van Dam et al., 2013). It is therefore important to adjust the environment in such a way that elderly are able to live longer independently.

The share of elderly in the population is thus increasing and although older people between the ages of 65 and 75 are still quite vital, physical limitations will increase rapidly from the age of 75 onwards. This means that the daily range of action of elderly will become smaller. At the same time, one can see that household compositions are changing and more and more elderly live on their own. As a consequence, fewer elderly can depend on their partner or children for help and informal care (van Dam et al. 2013) and will need to rely more on other care providers. Both these developments make elderly more dependent on the direct environment, which, as a consequence, will require new quality standards.

2.3 Age versus Frailty

The physical abilities of elderly thus decrease when they get older, especially from 75 years and onwards. It therefore seems that age is a good indicator to research living longer independently. However, although age is important, it is not directly related to health and well-being. There are enough very elderly people that are still vital, and vice versa for elderly that are still relatively young. Therefore age might not the best indicator to assess someone's health or wellbeing (Schuurmans, et al: 2004; Campen, 2011). Frailty on the other hand is a better tool. Frailty among elderly is a process in which there is an accumulation of physical, psychological and/or social and cognitive deficits in one's functioning that increases the likelihood of negative health outcomes, such as functional limitations, admission and death (Campen, 2011). Frailty, thus, not only refers to physical vulnerabilities but also to psychosocial imbalances (Steverink et al., 2001). Scholars consider frailty as a multidimensional construct that comprises several domains. De Kam et al. (2012) state that quality of life and life satisfaction of individuals are linked to frailty. In their theoretical framework de Kam et al. (2012) found that frail older participants showed lower scores on quality of life and higher scores on psychological distress (Peters et al., 2012). This was in contrast to non-frail elderly. In their research de Kam et al. (2012) therefore categorized elderly based on their level of frailty, which ranges from vital to very needy (Peters et al., 2012; Steverink et al., 2001). The clustering in profiles with specific characteristics makes it clear that certain elements of the Integrated Service Area will have an effect on one group of elderly people, but not on other groups. This could mean that local governments need to develop completely different interventions for different profiles.

Frailty is thus a better tool to assess if and how elderly live longer independently. Since frailty increasingly occurs when people are around the age of 75, this research will define elderly as people of 70 years and older. People of 70 years and older are chosen instead of people of 75 and older to increase the margin and to not exclude frail older people who are slightly younger.

How frailty is included in the questionnaire will be explained in more detail in the methodology.

2.4 Dutch policy: from a welfare state to a caring society

In the last few decades, the number of elderly has increased, especially elderly of 80 years and older who tend to require assistance or services. At the same time expectations regarding the quality of housing, services and care have changed. People expect a higher quality. These two developments together have posed a challenge in the Netherlands. There were and still are concerns that the escalating costs of providing care and assistance to the elderly population will become unaffordable and that the growing number of elderly will affect the demand for certain types of services (Brink, 1990). As a consequence of these developments, policies concerning care and housing for elderly has changed in recent decades. The next few paragraphs will therefore give a brief overview of how these policies have changed from the sixties onwards.

The 1960's, especially the second half, experienced a period of growth and development in elderly care and elderly homes (Blommestijn, 1990, in Naafs, 1997). The government created an extended system of care facilities and elderly who experienced obstacles in physical and mental health moved to an elderly home quite early on. However, not only adults in need of care moved to these elderly homes. In this period, it was also common for healthy elderly to move to an elderly home after their retirement to spend their last years there. Care homes admitted older adults without paying attention to their actual health. Hence, elderly homes were large institutions where services could be economically provided in a concentrated pattern. These institutions tended to be self-sufficient, with very little interaction with the larger community. The emphasis was on living and less on care (Naafs, 1997).

In the 1970's, the government became aware of the upcoming demographic transition and the change in age structure to a more ageing population. Particularly in the second half of the 70's, the limitations of the welfare state became apparent, especially in economic terms (Adriaansens & Zijderveld, 1981, in Naafs, 1997). The welfare state was under pressure and endured a period of stagnation (Van Doorn & Schuyt, 1978, in Naafs, 1997). As a result the government introduced several measures. First of all, the government introduced cuts in its expenditure and stabilized the growth and development in elderly care (Singelenberg et al., 2012). Second of all, policies no longer focused solely on people of 55 years and older but targeted people of all ages (VRO, 1988, in Naafs, 1997). They included not only people who were in need of care but also the people who gave care. The policies focused on new opportunities for participation. During the same time, the government took into account differences between elderly. It became clear that elderly differed in their wishes, needs and capabilities, and therefore care needed to be customized for each person individually. Therefore, the government aimed to change the care system from a supply driven system to a demand driven system (Naafs, 1997). This development is still ongoing.

In the 80's and 90's, the government adopted the policy Outreach activities for older people (*Nota flankerend bejaardenbeleid*, 1983) (Tester, 1996). The policy emphasized the transition from a formal care system to a mixed, integrated, informal care system. Formal care needed to be complementary to informal care, not necessarily a substitute. More generally, there was a move from a society reliant on welfare to a caring society where elderly had more to say, especially with regards to elderly and care homes (Naafs, 1997).

The Social Support Act that came into effect in 2007 went even further and reflected a change in the relationship between the government and citizens. The Social Support Act called for an increased autonomy at local levels and greater individual responsibility (Jager-Vreugdenhil,

2012). Financial streams were restructured and tasks and responsibilities were shifted from the central government to insurers and municipalities (Pijpers et al., 2016). An important objective of the introduction of the Social Support Act was to reign in expenditure growth. The government believed that the projected growth of care would not be sustainable. The government expected that expenditures on care could be reduced if municipalities would have sufficient discretionary space to offer tailored support to clients (Maarse & Jeurissen, 2016).

The transformation of the care system, which the Social Support Act is a part of, consisted of four interrelated pillars: a normative reorientation, a shift from residential to non-residential care, decentralization of non-residential care and expenditure cuts.

In the government's view, the broad coverage of long term care and its high level of public funding had created a supply-driven and 'over-medicalized' system in which elderly had become very dependent on public provisions for care. The government therefore believed that the care system needed a normative reorientation, in which people, where possible, would take on a more individual and social responsibility.

Besides this, the government held the opinion that a substantial shift was needed from residential care to non-residential care. Residential care would only remain available to people for whom non-residential care was not a realistic option. The shift was based upon the assumption that persons with mild problems would be better cared for in a familiar environment and that people might prefer to 'age in place'.

In addition, within the care system, the Dutch government decentralized some tasks to either insurers or municipalities. This also meant that these tasks shifted from the Exceptional Medical Expenses Act to the new Social Support Act. For example, municipalities became responsible for the coverage of housekeeping services and for the provision of individual facilities such as stair lifts. Figure 2 visualizes this development. One can see that the former care program with the AWBZ has now split up into the AWBZ and the Social Support Act. The AWBZ still covers the residential and most of the non-residential care. However, the coverage of housekeeping services and the supply of individual facilities now belong to the Social Support Act. This decentralization of tasks was based on the assumption that municipalities were best informed about their locality and therefore best capable to deliver an efficient, tailor-made and integrated package of services. This nowadays means that different municipalities organize the Social Support Act in different ways, each reflecting their own vision and priorities.

Lastly, the government implemented expenditure-cuts in long-term care. The government saved money as a consequence of two developments: the decentralization of tasks to municipalities and insurers and the government's choice to close nursing homes for people with only mild problems.

In that same year, the government introduced the action plan Better (at) Home in the Neighbourhood (*Beter (t)huis in de buurt*). The policy increasingly focused on ageing in place (Davies & James, 2011). Values such as autonomy and independence and retaining one's own identity were important, but also values such as participation and remaining integrated and involved in the community (Gemeente Hengelo, 2011). The latter was to be achieved with for example services that promote community participation, such as neighbourhood centres, recreation, social and leisure activities (Brink, 1990). The requirements for admission also became stricter. There were only limited possibilities to live 'intramural' and a person's admission to a nursing or elderly home was postponed for as long as possible. Services in the field of housing, care and welfare were more compartmentalized and took place separately from each other as much as possible (Broese van Groenou & de Boer, 2016). The effects of these policies are clearly visible in statistics. At the end of the eighties nearly 200.000 people over

65 lived in an institution, in 2010 this was only 124.000. The decline in relative terms was even stronger: The percentage of people over 65 who lived in an 'institutional household ' decreased from 11 to almost 5 percent. (Garssen, 2011). This was a consequence of policy as well as people's own wish.

The financial crisis in 2008 opened a window of opportunity for an even more radical reform of the care system (Maarse & Jeurissen, 2016). The Dutch government announced in the coalition agreement of 2010 that the Social Support Act would be expanded (de Klerk et al., 2010) and that the AWBZ would be dissolved and replaced by the Chronic Care Act (*Wet Langdurige Zorg, WLZ*) and the Health Insurance Act (*Zorgversekeringswet, ZVW*). Figure 2 visualizes this development. In 2015 the current Social Support Act was introduced. Compared to the Social Support Act 2007, municipalities are now responsible for all non-residential care, assisting people who are unable to independently arrange the care and support they need (de Klerk et al., 2010). Thus, with the Social Support Act 2015, support care and day care services have been delegated to the municipalities as part of the Social Support Act. Insurers remain responsible for contracting community nursing and 'body-related' personal care (Maarse & Jeurissen, 2016, p. 243) but all other non-residential care now has become a responsibility of the municipalities (de Klerk et al., 2018). In the Social Support Act 2015, the starting point is the so-called 'kitchen-table discussion' (*keukentafelgesprek*) (Eijkel et al. (2019). The idea is that through these talks, first an appeal is done on the individual him or herself and his/her social network before being referred to support provided by the municipality. (Eijkel et al. 2019) .

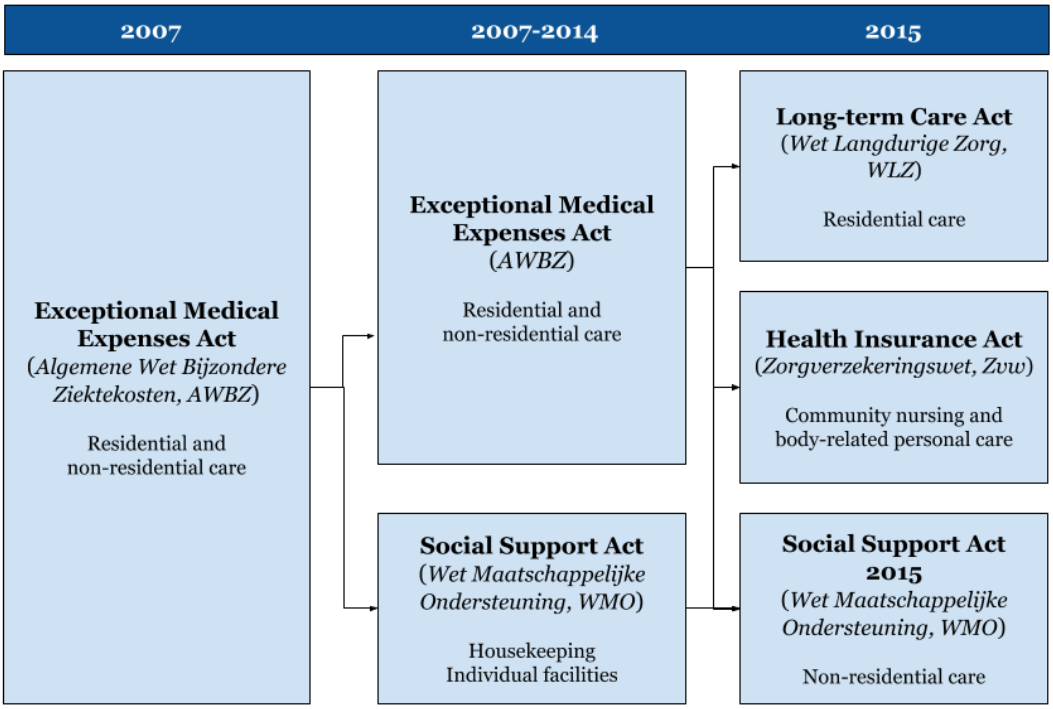

Figure 2: Transition of Care Programs in the Netherlands from 2007 – 2015. Source: Lubberding, 2018, p. 17.

In 2018 the government introduced the program Longer at home (*Langer thuis*). This program focuses specifically on the large and growing group of elderly people living independently. The starting point of this program is for elderly to continue to live independently in a good way with support, care and in a home that meets their personal needs. To achieve this the Cabinet (the Dutch government), the municipalities and a series of social parties have joined forces to improve the care and living situation of the elderly. Within this

program, the national government tries to remove obstacles where necessary and to stimulate coordination and cooperation between municipalities, health insurers, healthcare providers and other parties. However, the detailed policy development and implementation are left to municipalities and other parties. They are responsible for ensuring that the support and care that the elderly need is available in the neighbourhood and region where the elderly live and that housing and the living environment are suitable according to what elderly themselves consider important (Ministerie van Volksgezondheid, Welzijn en Sport, 2018).

Policy concerning care and housing for elderly has thus changed in recent decades. Since the 1980's the formal care system has been changing into a mixed, integrated, informal care system. The Social Support Act that was introduced in 2007 also reflects this change. The Social Support Act called for an increased autonomy at local levels and greater individual responsibility (Jager-Vreugdenhil, 2012). In 2015, the Social Support Act was expanded and the current Social Support Act was introduced. Compared to the Social Support Act 2007, municipalities are now responsible for all non-residential care and are assisting people who are unable to independently arrange the care and support they need. Within this policy, the national government tries to ensure the right preconditions, but, the detailed policy development and implementation are left to municipalities and other parties. They are responsible for ensuring that the support and care the elderly need is available in the neighbourhood. Since the new Social Support Act has been active since 2015 and de Kam et al. did their research in 2012, it is interesting to see if this reform has had any effect on the outcomes. This research will thus compare the situation of 2012 and 2018 to see if anything has changed over the past five years.

2.5 Ageing in Place

Housing has always been important to elderly persons because it is the setting for retirement, a place filled with memories and an asset that provides financial security. Although intramural living has an integral character with a combination of housing, care and social contacts, fewer elderly find this attractive. Instead elderly prefer to live independently in their own homes or own neighbourhoods as they age and are often reluctant to relocate (Ball et al., 2004; Gilleard et al.,2007). However, because of rising life expectancies, elderly are currently living at home longer than they ever have done before. This is often referred to as 'Ageing in Place'. Ageing in place, nevertheless, does not only constitute the realm of home or work, but also the public spaces and facilities in a neighbourhood. The characteristics of the residential location and its environment influence the potential action range of people and as a consequence their behavioural possibilities (Hägerstraand, 1970). The residential location can thus both hinder and facilitate the spatial behaviour of individuals. It is therefore important to make neighbourhoods more age-friendly. This is necessary because the environment has a significant impact upon all age groups but especially on those reliant on their immediate locality for support and assistance (Buffel & Phillipson, 2012). With regards to elderly people, one can for example see that ageing is often accompanied by bodily changes, which affects energy levels. This has consequences for, for example, the distance elderly people can walk in a neighbourhood (Lager et al., 2016). Making neighbourhoods more age-friendly involves recognizing the needs of different generations and looking at the potential of a neighbourhood for groups of all ages (Buffel & Phillipson, 2012).

Western societies have therefore promoted policies that foster ageing in place. The goal of these policies is to assist older adults in sustaining their well-being despite increasing frailty and decreasing mobility (Evans 2009; Ahrentzen 2010; Van Dijk, 2015). Western societies promote these policies because they presuppose that living in a familiar environment is better

for the elderly and will enhance the quality of life. When elderly people remain in a familiar environment they maintain their independence, autonomy and their social connections (Wiles et al., 2012). In addition, some research also states that ageing in place is a cost effective solution to the problems of an expanding population of very old people (Davies & James, 2011; Lager et al., 2013). However, new studies have argued against this finding. Van Eijkel et al. (2019) for example found that the costs of healthcare have not decreased but increased due to ageing in place. This can be explained by the deployment of local care teams. Local care teams were supposed to facilitate ageing in place because care would be organized closer to the client. It was assumed that deployment of these local care teams would decrease the costs of care. However in the municipalities that have deployed local care teams, the number of referrals to professional care has increased. This in turn has increased the costs of healthcare. It is therefore not clear if ageing in place truly leads to a decrease of costs.

However what has become clear is that intramural living is increasingly reserved for people with a greater need of care (SER, 2008). Evidently this means that more and more elderly will live independently longer. It is therefore important to find innovative ways that support ageing in place so elderly are able to maintain their quality of life while living independently.

2.6 Integrated Service Areas

One of these innovative ways to support elderly are the so-called Integrated Service Areas (ISAs). ISAs are neighbourhoods or villages in which housing, care and social policies are integrated and professionals from different sectors collaborate to offer various sources of support. Sometimes, there are even some adjustments made within the living environment. At large, it is a geographically bounded concept in which community-based care and support are made available within walking distance. The purpose of an Integrated Service Area is thus to create arrangements between providers of care, housing and services in order to facilitate independent living of older adults for as long as possible and to make sure elderly continue to actively participate in society (de Kam et al., 2012).

Throughout the years the ISA concepts have differentiated and have developed from small areas with high performance levels towards whole neighbourhoods with less clearly defined performances. In the Netherlands the first concept was developed around 40 years ago, then often referred to as a residential care area (*woonzorgzone*) (Mens & Wagenaar, 2009). Architects who focused on designing healthcare buildings came up with the idea for a residential care area. They were inspired by similar developments in Scandinavian countries. Initially, the areas were developed for elderly, however, later it targeted all groups that needed care and support (Glaser et al., 2001). The assumption was that up to a certain size, each desired combination of housing with care and support could be offered within an area. The development of Integrated Service Areas has been strongly stimulated by scientific publications and through 'experimental programs' by the former Steering Committee Experiments for Public Housing (*Stuurgroep Experimenten Volkshuisvesting, SEV*)[1] (Glaser et al., 2001). SEV was a national organization for innovation in housing. The SEV looked for innovative, solution-oriented ideas and these ideas were also implemented in the form of practical experiments. Regarding residential care areas, the SEV offered the possibility to register residential care zones, the organization brought together initiators and providers and it stimulated the exchange of knowledge and experiences.

The local initiatives turned out to show a lot of variation. Some (mostly under municipal management) focused on the STAGG model. Other initiatives (often initiated by a partnership

[1] The Steering Committee Experiments for Public Housing (SEV) has turned into Platform 31 in 2010.

between housing associations and healthcare providers) centred on the (re)development of (healthcare) real estate or tried to achieve multifunctional buildings. Yet others focused primarily on strengthening the network of services for care and support in the neighbourhood. In 2009, the Steering Committee Experiments for Public Housing documented that 100 residential care areas were realized or under development.

To investigate if the ISAs offer a solution for the elderly, the Steering Committee Experiments for Public Housing has chosen ten pilots. These ten Integrated Service Areas were all already existing Integrated Service Areas in the Netherlands. The pilot programme has shown a diversity of the ISA concept with three dominant models (Pijpers et al., 2016):

A. The first of these models revolves around the creation of a functional spatial hierarchy. In this model, a newly built service centre located next to the local shopping centre provides care and services for the elderly. In addition, care-intensive forms of housing are offered in various clusters scattered around the area. These are all within walking distance from the services centre.

B. The second model is called a place-base model. This model is a less strict version of the first, with an existing nursing or care home in the centre and senior homes and commercial services within walking distance.

C. The third model focuses on existing networks between providers of housing and medical/social care in a locality. Contrary to the other two models, it does not set out from the built environment. Instead, adaptations to the built environment are made at a later stage (Singelenberg & Van Triest, 2009; Singelenberg et al., 2012). The emphasis is on forging links between service providers (Pijpers et al., 2016)

There is often a relation between the three models of services integration and the type of area in which they are developed. For example, many ISAs in urban settings are based on the model of functional spatial hierarchy. The reason for this is that many ISAs in urban settings were developed as part of broader urban restructuring programs with more funds available for neighbourhood renewal and the creation of new venues. In rural areas, the emphasis is on deepening links between service providers. Therefore, it makes more sense to use existing venues to co-locate services and to prioritize investments in homes that are suitable for ageing in place (Pijpers et al., 2016). Different areas will thus use different approaches to service integration.

Although there are major differences in how municipalities give substance to the ISAs, on average, the impression remains that the elderly in Integrated Service Areas live relatively longer independently than elderly in non-ISAs. A recent study by RIGO found that elderly in ISAs more often move within the neighbourhood and less often to another neighbourhood or to an institution than people in non-ISAs (Leidelmeijer, 2018). However, although ISAs perform better than non-ISAs, with regard to living longer independently, research has shown that Dutch elderly in general live longer independently. This is due to stricter regulation of admission for intramural living (Leidelmeijer, 2018). Thus elderly on average live longer independently. However, these elderly are simultaneously confronted with an increase in their vulnerability and an increase in the number of limitations. This means that for the majority of the elderly people, it is not only important that they can live longer on their own in ISAs but also how ISAs can contribute to maintaining, and preferably improving, their quality of life. It

is therefore necessary to adjust the living environment in such a way that it maintains and preferable improves the quality of life.

2.7 Place characteristics

2.7.1 Research on place characteristics

A substantial amount of past research has explored the effect of the living environment on life satisfaction. The living environment can be described as the infrastructure of an Integrated Service Area. This means the nature and characteristics of houses and facilities regarding welfare, care and education but also the location, distance and accessibility to these houses and facilities (Oswald et al, 2010). Literature states that these factors are an important determinant of quality of life (Zimmer & Chappell, 1997).

Previous studies have for example shown that accessible public transport contributes to a higher quality of life. In a qualitative study by Gabriel & Bowling (2004), elderly indicated that inadequate public transport made it difficult for them to go out and do things. They also related this to the distance to bus stops (particularly in the winter). Elderly found that this negatively influenced their mobility and as a consequence also the quality of life. The state of roads and pavements in the neighbourhood can also negatively influence the mobility. Berke et al. (2007) state that a lower quality of the public space, such as roads and pavements, are associated with greater limitations in the daily range of action. On the other hand, greater neighbourhood walkability is linked to reduced depressive symptoms.

However the walkability in the neighbourhood also depends on feelings of safety. One can think of traffic safety. A high prevalence of vehicular congestion makes elderly feel less safe because they are afraid of traffic accidents (Balfour & Kaplan, 2002; Parra et al. 2010). This is not only true for traffic safety but also for the prevalence of crime. The latter can lead to physical and mental stress, which in turn can affect mental health and the quality of life (Balfour and Kaplan, 2002).

Good facilities and local services are also important when it comes to quality of life (Friedman et al., 2012). In Gabriel & Bowling (2004), elderly indicated that quality of life, first of all, depends on the amount of activities provided and, second of all, that these activities were close enough for them to attend. The elderly also expressed that they often feel like they do not receive enough information on the facilities and activities available for elderly in the neighbourhood. This might have a negative effect on the quality of life since social activities make elderly feel like they have something to do. This might be the reason why elderly consider reciprocal activities, such as voluntary work, to be important. Elderly feel like these activities keep them busy but also make them feel valued (Gabriel & Bowling, 2004).

Dwelling conditions are often also correlated to quality of life. Dwelling conditions are not only interior conditions but exterior conditions, such as being able to properly access the house. If a dwelling is adapted to the needs of the elderly, this will have a positive influence on their psychological well-being since the elderly are able to remain independent and maintain their preferred standard of living. (Fernández-Portero et al., 2017; Suzuki et al., 2002; Phillips et al., 2005).

Lastly, elderly also indicated that they valued living in a pleasant environment. Factors that contributed to a neighbourhood having a pleasant environment were for example having enough greenery around, having public parks nearby and having a sense of belonging to a community (Gabriel & Bowling, 2004; Parra et al. 2010).

The previous paragraphs have listed place characteristics that can either promote or hinder the quality of life of elderly living independently. A conclusion that can be drawn from this is that quality of life differs between areas and that this depends on the available place characteristics

and how these place characteristics are supplied. Lots of studies have therefore focused specifically on the difference between urban and rural areas. The reason for this is that rural and urban areas are two different environments with different place characteristics (Lee & Lassey, 2010). These different characteristics might have a different effect on the quality of life of the people living in these areas. One of the outcomes that invariably follows from a rural/urban comparisons is that facilities and services in rural communities are deficient in availability and accessibility compared to those in urban communities. In addition, residents of urban areas often have a higher income and a better health status in comparison to residents of rural areas. These findings show the urban elderly have demonstrable advantages in terms of many objective indicators of quality of life. However there are no beneficial outcomes reported in terms of subjective or emotional well-being. On the contrary, data suggest that the informal networks of rural elderly are a more salient source of support than those of elderly in urban settings (Scott & Roberto, 1987). Rural areas, in addition, often score better on indicators such as (traffic) safety, greenery and air quality (Eales et al., 2008). The previous named differences suggest that the needs of rural and urban seniors may differ. For example, rural elderly more often rely on others for transportation than their urban counterparts. The finding that there are differences between the quality of life and the needs of elderly living in urban areas and elderly living in rural areas underscores the importance of using categories such as rural and urban rather than using one broad category (Lee & Lassey, 2010).

2.7.2 Place characteristics in Integrated Service Areas

In an Integrated Service Area, place characteristics are explicitly thought about. In an ISA, the goal is to adapt the environment in such a way that it promotes ageing in place and elderly are able to live independently more easily. The municipalities of the ISAs have therefore chosen to develop and/or stimulate specific characteristics that will help facilitate ageing in place. However, every area is different, just like the ambitions that are linked to the ISA (Singelenberg et al., 2012). This also means that actions and plans play out differently in the different ISAs. Therefore in this research, a division will be made between rural and urban ISAs. This allows a comparison between ISAs with different and possibly also the similar place characteristics (Scott & Roberto, 1987).

A number of elements have been chosen by the Steering Committee Experiments for Public Housing that should ideally be present to ensure that a residential service area actually contributes to the well-being and health of elderly living independently. These characteristics can be divided into hardware and software. Hardware can be described as interventions in the built environment, for example the construction of a multifunctional building. Software includes non-tangible things. One should primarily think of service provision and health-care services (Pijper et al., 2016). Table 1 provides an overview of the most important hardware and software elements of services integration.

Table 1: An overview of the most important hardware and software elements of service integration. Source: Pijpers et al. (2016), p. 437 – 438.

Hardware	
Fitting/suitable rental homes	Number of fitting/suitable rental homes for older dwellers, including life-course friendly homes. Existing stock of homes plus new build homes, preferably divided into categories of "fitness/suitability."
Fitting/suitable owner-occupied homes	Number of fitting owner-occupied homes for older dwellers, including life-course friendly homes. Existing stock of homes plus

	new build homes, preferably divided into categories of "fitness/suitability."
Alternative care-intensive forms of housing	Number of alternative care-intensive forms of housing, preferably small-scale.
Safe and walkable living environment	Accessibility of public space, including traffic safety, quality and maintenance of main walking routes, and street lighting.
Meeting space/activities center	Central location (e.g., in local community building) where older dwellers can obtain information and help and where activities are organized.
Clustered medical facilities	GPs, pharmacy, physiotherapy, and other care providers located in one building or cluster of buildings. Presence of primary medical care in the neighbourhood.
Software	
Local care team offering integrated care services	Local team of professionals from different care providers (e.g., nurses, home care staff) but with its own financial budget.
Cooperation between local care team and providers of primary health care	Meeting routine involving local care team and providers of primary care in the neighbourhood.
Professional advisory services	Professional, independent advice on all matters related to housing, care, and welfare of older dwellers.
Local information/service desk	Centrally located information and service desk where older people can obtain information and advice from all parties and providers working in the neighbourhood.
Home care on call	Available 24/7. Comprises scheduled as well as unscheduled care (emergency care). Rapid response time.
Transportation services	Public transport, local taxis, and specialized transportation services for older people (usually provided at municipal or regional level).
Advice on adaptations to the home	Advice on adaptations to original homes for older homeowners. Adaptations include home automation, stair elevators, adapted beds, personal alarm systems, and additional handles and grips.
Local volunteer centre	Coordination of demand for volunteer care and offer of volunteers (usually provided at municipal or regional level).
Support of volunteer aid	Information to volunteers, discussion groups, occasional or more structural replacement of tasks by others (usually provided at municipal or regional level).
Offer of leisure activities	Sports, craft and hobby classes, and day-care activities.
Home services	Groceries, handyman service, meal service.

Pijpers et al. (2016) found that rural ISAs have a more complete offer of defining elements. This is true for hardware elements as well as software elements. Regarding hardware elements, there are significantly more clustered medical facilities available in rural areas. When looking at software elements, there are more local care teams, advisory and information services available in rural areas (Pijpers et al. 2016).

Pijpers et al. (2016) also looked at differences between rural and urban ISAs for various domains of well-being. When looking at the housing situation, rural residents significantly more often feel that their home is not suitable for aging in place. Pijpers et al. (2016) argue that this can be explained by the fact that a large share of homeowners in rural areas have not made adaptations to their homes. This is a strange outcome since rural areas have more local care teams as well as advisory and information service available. However, elderly are often

unaware of these service that can help organize and fund adaptations to their original homes. Rural elderly, thus, lack awareness about services that are available to help them to stay in their original homes. As a consequence rural elderly anticipate relocation more often than urban residents (Tang & Pickard, 2008).

With regard to physical health, Pijpers et al. (2016) found no big differences in physical problems, chronic illnesses, or frailty between the elderly in rural and urban ISAs. However, they did mention that elderly in rural areas felt slightly more fit than elderly in urban areas. This might have something to do with the environment in urban ISAs. Possibly, elderly in urban areas do not go out as much because the built environment is less inviting to do one's physical fitness. With regard to mental health, Pijpers et al. (2016) did not find any significant differences. Although, they do mention that rural elderly have slightly more psychological problems. Pijpers et al. (2016) believe this might be the case because it is less accepted to voice mental problems in rural communities and therefore the thresholds to seek professional help may be higher.

Small differences were found in that rural elderly pay fewer visits to hospital doctors than elderly in urban areas. It could be that this is because of the distance to hospitals. However, it can also be explained by the health and care services that are very active within rural areas and that detect and address emerging health problems early on. (Pijpers et al., 2016). In addition, rural elderly also receive significantly more informal care from family, friends and neighbours (Pijpers et al., 2016). However, in both areas elderly are satisfied with the care that is provided and with the cooperation between care professionals.

Pijpers et al. (2016) have also looked at the accessibility of commercial and social services, but did not find a significant difference between urban and rural areas. In contrast to the findings of Pijpers et al. (2016), RIGO found that urban ISAs are doing better in terms of commercial and social services. They state that these facilities are more often found within a distance of 500 meters in urban ISAs than in rural ISAs. In addition, RIGO shows that urban areas score better on the functional suitability of the living environment than rural areas (Leidelmeijer, 2018). However, RIGO's outcome (Leidelmeijer, 2018) is based on objective indicators while the outcomes of Pijpers et al. (2016) are based on subjective indicators.

Lastly, regarding social contacts, Pijpers et al. (2016) found that urban elderly have significantly more contact with their neighbours than rural elderly. This finding contrasts with previous research, which concluded that, in general, people in rural areas have more contact with neighbours (Steenbekkers et al., 2006). An explanation for this might be that social contacts obtained through memberships of a certain group are a substitute for contacts with direct neighbours. If you know many fellow villagers, contact with direct neighbours may become less important.

This paragraph has shown that within an ISA ideally there should be a number of hardware en software elements present to ensure that a residential service area actually contributes to the well-being and health of elderly living independently. On average, rural areas have a more complete offer of these defining elements. However this does not necessarily mean rural areas score better on the various domains of well-being. It seems that although the Steering Committee Experiments for Public has chosen these elements to be ideally present, they do not directly improve the quality of life. The reason for this is that quality of life is a multi-dimensional concept influenced by more than just the hardware and software available in an Integrated Service Area. In the next paragraph, this thesis will look at this concept in more detail.

2.8 Quality of Life

More and more elderly (will) age in place and consequently live independently for a longer time (Lager et al., 2013). These elderly, however, are confronted with an increase in frailty and an increase in the number of limitations (Abeles et al., 1994) from the age of 75 onwards. This means that for the majority of the elderly people, it is not only important that they can live longer on their own in ISAs but also how ISAs can contribute to maintaining, and preferably improving, their quality of life. It is therefore important for one to understand the construct of quality of life.

Quality of life is a multidimensional concept that refers to an individual's overall life satisfaction and total well-being. According to the World Health Organization, quality of life can be defined as "an individual's perceptions of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards and concerns" (WHOQOL Group, 1995, p. 1405). Measuring quality of life of an older population is important for the exploration of health-related factors, the prediction of the needs of elderly, and the evaluation of (possible) interventions (Shucksmith et al., 2009). A large number of methods have been devised to measure quality of life. They vary widely in concept, construction and content, and therefore cannot always be compared directly with each other. It is therefore no surprise that there is little agreement on what constitutes a quality of life measure (Farquhar, 1995).

De Kam et al. (2012) mention there are three elements that can be linked to quality of life: individual factors, environmental characteristics and the arrangement offered in the ISAs.

Other scientific articles have also listed the relationship between the first two elements and quality of life. However, the articles all use different terms for these elements. For example, according to Xavier et al. (2003) quality of life depends on a person's internal variables and on external variables.

Internal variables can be described as components of behavioural competence, such as health, function and social involvement (Lawton, 1991). For example, the number and the intensity of health limits varies for each person and therefore can also have a different effect on how people rate their quality of life (Farquhar, 1995). In addition, internal variables can also be personalities, varying social support networks, and the different cultures to which a person belongs (Usha & Lalitha, 2016). According to Kahn (1994) social support, for example, has been recognized to have a positive effect on both the physical and psychological well-being of older adults (Abeles et al., 1994). Social support may reduce the impact of stressful events, such as a loss of a family member or friend or a residential relocation. In addition, it can prevent social isolation (Mitchell et al. 2000). Each person, thus, has his/her own individual standards and evaluations of life, which are not necessarily accountable to any external factor (Lawton, 1991).

External variables are, according to Xavier et al. (2003), the environment and resources offered by the environment. Examples are the housing stock (Russ-Eft, 1979) and access to local facilities and services (Gabriel & Bowling, 2004). Environmental factors are vital for a comprehensive understanding of quality of life of senior citizens (Lawton, 1991). The environment affects a person's wellbeing because the ability to perform activities depends not only on the individual's cognitive abilities and his or her physical abilities, but also on environmental factors. For example, the ability to shop depends on people's physical abilities, but it also depends on the distance and nature of transportation to the store (Abeles et al., 1994). The external variables differ between areas. As a consequence, not all environments are equal in the life quality they offer (Lawton, 1991). Some environments enhance the quality of life while others weaken the quality of life.

Xavier et al. (2003) thus explain why and how individual factors and environmental characteristics are linked to quality of life. Their depiction of quality of life brings together objective information on living conditions with subjective views and attitudes to provide a picture of the overall well-being (Fahey & Smyth, 2004).

De Kam et al. (2012) add a third element: the arrangement of the ISA. The arrangement consists of formal and informal networks regarding housing, welfare and care, but also other networks. A network consists of numerous relationships between and among residents and providers and between providers and organized clients.

Lastly, this research argues that the macrosocial structure delivers a baseline condition. There is a substantial amount of literature on the difference in quality of life between older rural and urban populations. However, the outcomes differ between countries. Sabbah et al. (2003), for example, report that habitat (rural vs. urban) had a minor influence on quality of life among the older Lebanese population. Tsai et al.(2004) challenge this outcome and report that rural elderly had a lower quality of life than urban elderly in Taiwan. This corresponds with the result of the study by Usha & Lalitha (2016). They concluded that in India, senior citizens in urban areas had a higher quality of life than the senior citizens in rural areas. They explained that a higher share of elderly live in the rural areas while the health care facilities here are very minimal. These examples show that the national context sets a baseline for the three elements.

2.9 Conclusion

Throughout this chapter, it has become clear that the main question is not if elderly will live independently longer, but how the quality of life of elderly living independently will be maintained. Quality of life is thus closely connected to living longer independently.

The conceptual model displayed in figure 4 visualizes how three elements influence the quality of life and subsequently have an indirect influence on living longer independently. These three elements are: individual factors, environmental characteristics and the arrangement offered in the ISA.

Individual factors are, among other factors, frailty, social involvement, and support networks (Lawton, 1991; Usha & Lalitha, 2016). For example, if elderly are more frail, they might not be able to do what they want because of health deficits. Living independently could therefore become more difficult. As a consequence, this can influence the quality of life negatively. In contrast, a bigger support network can lead to the opposite. Elderly might receive a lot of help and therefore are able to age in place more easily, which in turn will influence the quality of life more positively.

Individual factors are also connected to the environmental characteristics. For example, when health decreases, the daily range of action of elderly will become smaller and they will be more dependent on the direct environment. In case a facility such as the general practitioner is not nearby, this will have a negative influence on living longer independently. However, this connection also works the other way around. If there are no social activities provided within a neighbourhood, this can lead to a lower social involvement.

Environmental characteristics also directly influence living longer independently. Examples are housing and the availability and proximity to facilities and services (Gabriel & Bowling, 2004; Russ-Eft, 1979). For example, the ability to shop depends on people's physical abilities but it also depends on the distance and nature of transportation to the store (Abeles et al., 1994).

Both the environmental factors and the individual factors have been discussed in the theoretical framework. However, since this thesis wants to research if and how place

characteristics have an effect on the ISAs and the elderly, the choice has been made to focus specifically on environmental characteristics. The individual factors are included in the analysis but only to say something about the chance that a certain environmental character has an effect.

De Kam et al. (2012) add a third element: the arrangement of the ISA. The arrangement consists of formal and informal networks regarding housing, welfare and care. Sometimes the arrangement also includes the decision to make adjustments in the living environment. In addition, ISA arrangements are also connected to individual characteristics. When limitations and frailty increase, at some point elderly people need support and care to be able to continue to live independently while at the same time maintaining a sufficient quality of life. The various measures that local governments undertake to provide facilities to achieve a sufficient quality of life forms an important part of the arrangement of ISAs.

In this thesis, a distinction is made between rural and urban areas. The reason for this is that rural and urban areas are two different environments and the implications of place characteristics can be better apprehended with an examination of the differences between places (Lee & Lassey, 2010). For example, facilities and services in rural communities are deficient in availability and accessibility compared to those in urban communities. This, as a consequence, can have a negative effect on ageing in place and subsequently, the quality of life. In contrast, rural elderly more often have a bigger social network than their urban counterparts.

The interrelationships between the different factors can thus be different for rural and urban areas. However, within these two categories, not all areas are unambiguous rural or urban. There can also be differences found within each category. The categories can be treated as if they are a continuum. It could very well be that when comparing the Berflo Es and Helden en Panningen only small differences will be found because they are both on an extreme of their continuum. Figure 3 visualizes this example. Thus, dependent on their position in the continuum, the Berflo Es and Helden en Panningen might overlap on some themes.

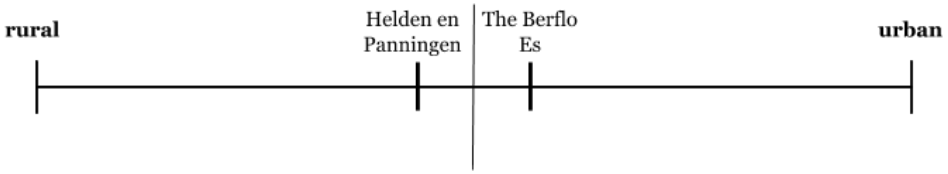

Figure 3: An example of a continuum of rural and urban areas in which the Berflo Es and Helden en Panningen are placed.

Lastly, all these relations can be positioned within a framework of the macrosocial structure. There is a substantial amount of literature on the difference in quality of life between urban and rural elderly. However, the outcomes differ between countries. It therefore seems that the macrosocial structure delivers a baseline condition. The political situation is also part of the macrosocial structure. This is also relevant for this thesis. In 2015, the new Social Support Act was introduced. The new Social Support Act gave the municipalities a greater responsibility regarding the provision of care. This has led to a more mixed, integrated and informal care system. Since the study by de Kam et al. has been carried out in 2012, it is interesting to see how the new Social Support Act has influenced the effect of ISAs on elderly. The new Social Support Act has given the municipality an even greater role and responsibility. The expectation is that the municipalities are positioned closer to the residents and therefore know better what the residents need. One could therefore assume that elderly are able to live independently for a longer time but also maintain their quality of life. The conceptual model below therefore

visualizes if and how the macrosocial structure has changed the outcome over the past five years and whether there is a difference between rural and urban areas.

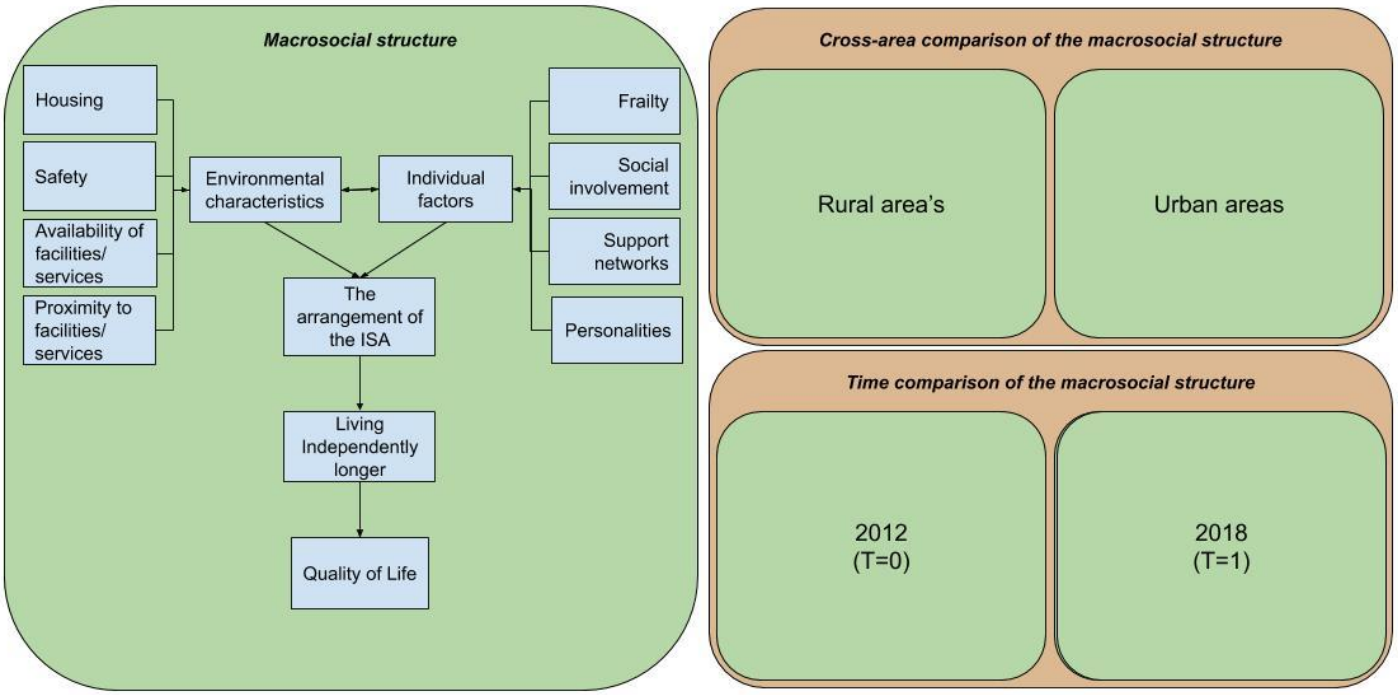

Figure 4: The Conceptual Model of this research

3. Methodology

3.1 Research methodology

The purpose of this research is to answer the main research question "How have place characteristics influenced the Integrated Service Areas of Hengelo and Peel en Maas and the elderly living in these areas over the past five years?" This thesis researches if Integrated Service Areas in rural areas and Integrated Service Areas in urban areas have a different effect on the quality of life of the population living in these areas. A study by de Kam et al. in 2012 on the effects of Integrated Service Areas has been central to this research and has been used as a baseline measurement. De Kam et al. (2012) selected ten Integrated Service Areas survey areas. These areas were selected based on the level of implementation and the innovative value of local practices. They sent all older people aged 70 and over living independently in the 10 selected ISAs a survey. This chapter explains why a survey is a suitable method for this research. This chapter will also explain more thoroughly how the data was collected.

3.2 Research Design

When a research question seeks to explain a present circumstance and starts with "how", a case study becomes relevant (Yin, 2009). This is because how and why questions deal with operational links needing to be traced over time, rather than mere frequencies or incidence. In addition, case studies are an extremely useful tool to find differences or similarities between research objects (George & Bennett, 2004). Also, case studies do not separate a phenomenon from its context (Yin & Davis, 2007). Based on the mentioned characteristics, a multiple case study design is the best fitted approach for this research. Yin (2009) also refers to this as a "comparative case method" (p. 19). This comparison has a deeper meaning in this research, because it not only contrasts the two cases, but also deals with the assumed dichotomy between the quality of life in rural and urban areas. Two cases were chosen for this research: Helden-Panningen and the Berflo Es. The main reason for choosing only two cases is that it is both efficient and effective within the limitation of a master study. Due to the fact that this is a master thesis, there is not enough time nor financial means to study all the ISAs. Therefore, two cases were chosen. Because this approach is time efficient, each Integrated Service Area can be studied in more detail. These specific cases were chosen foremost because they were already used as cases in the questionnaire in 2012, which served as a baseline measurement. Secondly, the two cases are relevant because they both differ in terms of location. The Berflo Es is located in an urban area and Helden-Panningen respectively in a rural area. This means that these two cases are very useful to compare with one another (O'Learey, 2010). However, it could be possible that no or only a small difference will be found between the Berflo Es and Helden-Panningen because they are both on an extreme of their continuum. This means that they might even overlap on some themes.

The primary research question of this thesis is focused on the opinions of inhabitants of the two integrated services areas. According to McLafferty (2010), a survey can be used as a method if one is looking for characteristics, behaviour and the opinions of a large group of people. In addition, with surveys one can quickly obtain data and reach a large group of residents. This can lead to a broader view of the topic. Therefore, this research has opted for a quantitative research method.

The interviews that my co-student Lilian Smeenge will do are complementary to the questionnaires set out in this research. The interviews will lead to a deeper understanding of the subject and will present a complete view on the topic and the related data. By using both

methods stronger conclusions can be drawn and the questions of this research can be answered more thoroughly. O'Leary (2010) for example says that data will get more meaningful if you link quantitative data to qualitative data. Such a linkage can, according to O'Leary (2010), contribute to a 'holistic understanding' of a phenomenon. Our researches together will therefore hopefully lead to a holistic understanding of the effect of integrated services areas on the quality of life of elderly in these areas.

The skills of the population are salient considerations in choosing a mode of data collection. Questionnaires can be administered face-to-face by an interviewer, over a telephone, on the web or by self-completion. A decision was made to send the research population a letter because the use of Internet might be limited among very elderly and administering the surveys by telephone or in person would be too time consuming (Fowler, 2009). In the letter, a note was made that the respondent could also fill out the survey online. In this way, the elderly themselves can choose which method they prefer.

3.3 Research Population

De Kam et al. (2012) chose people of 70 years and older as their research population because previous research showed that frailty increasingly occurs when people are around the age of 75 years. In order to increase their margin and not to exclude frail older people who are slightly younger, their research opted for a target group of elderly of 70 years and older. They chose elderly who 'live independently' because Integrated Service Areas are innovative ways that try to advocate ageing in place. To see if ISAs foster ageing in place, one should research elderly that live independently. Since this thesis is a follow-up study of their research, this research population was also chosen. Together with the municipalities, the boundaries of the research area were set out. As a result, the Berflo Es covered one 4-digit postal code zone and Helden and Panningen covered two 4-digit postal zones. Within these two areas, all older people of 70 years and above that lived independently received a letter.

In the Berflo Es 575 letters were send and in Helden en Panningen 2202 letters were send. 557 elderly in Helden en Panningen responded to the first questionnaire and 121 elderly in the Berflo Es. The response to the second questionnaire was slightly lower. 435 elderly in Helden en Panningen responded and 83 elderly in the Berflo Es. In 2012, 150 follow-up questionnaires were collected in both service areas. This means that this thesis has collected more follow-up questionnaires in Helden en Panningen and slightly less in the Berflo Es (table 2).

Table 2: Responses to the questionnaires

	Helden en Panningen	The Berflo Es
N = letter send	2202	575
Response first questionnaire	557	121
Response second questionnaire	435	83
Response rate second questionnaire	19,75%	14,43%

In 2012, the respondents were divided into frailty groups based on the Groninger Frailty Indicator (GFI: Peters, Boter, Buskens, & Slaets, 2012).[2] The frailty groups were used to select 150 respondents in each ISA for the follow-up questionnaire. In this way, the research population reflected the population distribution but also had a slight bias toward the more frail ones. Table 3 shows the distribution of frailty in 2012. The data applies to both Integrated

[2] The GFI is discussed more extensively in paragraph 3.4 Data Collection.

Service Areas. De Kam et al. (2012) thus selected 150 respondents in both areas of which 4,8% was very frail and 2,5% was very vital.

In this thesis, it was decided that a follow-up questionnaire would be send to all elderly that were willing to participate in the second questionnaire. The reason for this is that only 121 elderly in the Berflo Es were willing to fill out the second questionnaire. If a similar distribution into frailty groups had been used to the one in 2012, this group would most likely have become even smaller. Consequently, this might have led to the sample being less representative of the research population. Therefore, all of the 557 elderly that were willing to participate, received a follow-up questionnaire. Moreover, a division of the research population into frailty groups could be always be done during the data analysis.

Comparing the percentages of respondents in each frailty group in 2012 and 2018 shows that the decision to not categorize the respondents before the second questionnaire has translated itself into different distributions. One can see that de Kam et al. (2012) included more elderly that are (very) frail and that this research has included more elderly that are very vital.

Table 3: The distribution of respondents into frailty groups based on the GFI of the preliminary questionnaire

	The percentages in 2012 for each Integrated Service Area	Percentages Helden en Panningen	Percentages for The Berflo Es
0	2,5%	20,0%	9,7%
1	15,0%	29,8%	22,6%
2	27,8%	24,7%	29,0%
3	27,8%	14,9%	17,7%
4	14,8%	6,4%	12,9%
5	7,4%	4,1%	4,8%
6	4,8%	0,0%	3,2%

It must be noted that the difference in frailty groups could and possibly has affected the outcome. For example, it could be that the outcomes of 2018 are significantly more positive, only because this thesis included less frail elderly than in 2012. In addition, the percentages of respondents in each frailty group differ between Helden en Panningen en the Berflo Es. On average, the research group in the Berflo Es seems to be more frail. Of the 83 elderly in the Berflo Es, 3,2% is categorized as very frail. In Helden en Panningen not one of the elderly is found to be very frail. This could be mere coincidence, however it could also be that Helden en Panningen simply does not have as much frail residents as the Berflo Es does. A recent study by RIGO confirms this assumption. RIGO found that the percentage of frail elderly is higher in the Berflo Es than it is in Helden en Panningen. In the Berflo Es 38% of the people of 55 years and above can be categorized as frail. In Helden en Panningen this percentage was only 23%. Perhaps Tang & Pickard (2008) and Pijpers et al. (2016) were right. Possibly, rural elderly anticipate relocation more often than their urban counterparts and therefore Helden en Panningen has less very frail elderly residents than the Berflo Es. However, although, Helden en Panningen might have less frail residents than the Berflo Es, the distribution into frailty groups does differ quite a lot between the two ISAs. It is therefore still necessary to take a critical stance while reading the results.

3.4 Data Collection

Collecting the data was a two-stage process. First, an introduction letter was sent together with a short questionnaire (derived from the GFI). This letter was sent to all older people aged 70 years and over living independently in the two selected ISAs. In the introduction letter, respondents were asked to fill in an informed consent form; and they were asked to complete a short questionnaire about their perceived health and well-being. This first questionnaire can be found in appendix 3. The questionnaire is derived from the Groninger Frailty Indicator (GFI) (GFI; Peters et al., 2012) and consists of six questions that address both physical and mental health. Questions about both forms of frailty were selected. The first three questions (independence, healthiness and medication use) relate to the physical well-being of the elderly. The last three questions (happiness, loneliness and the loss of a spouse/partner) relate to psychosocial well-being. The six questions were found to give a sufficient impression of frailty since the correlation with the entire GFI is quite high (r = 0,554) (de Kam et al., 2012). The estimated GFI can therefore be used to categorize people in frailty groups. In 2012, this short questionnaire was also used to select 150 respondents in each ISA for the follow-up questionnaire. This selection of respondents reflected the population distribution but also had a slight bias toward the more frail ones. The first letter was thus used to get an indication of the frailty levels of the research population.

Secondly, the follow-up questionnaire was send to the people who responded to the first questionnaire and who wanted to participate in the survey. The follow-up questionnaire for the Berflo Es can be found in appendix 5 and for Helden en Panningen in appendix 7. This questionnaire largely consists of questions from the 2012 survey. The survey of 2012 included a broad range of quality of life indicators, ranging from physical and mental health to satisfaction with services and the quality of support networks (Pijpers et al., 2016). The survey in 2012 was composed of the Groningen Frailty Indicator (Peters et al., 2012), questions from a survey on informal care used by The Netherlands Organisation for Health Research and Development (ZonMw), and questions from a survey on housing circumstances (WoON), used by the Ministry of Housing, Spatial Planning and the Environment (2009).

There were some questions from the follow-up questionnaire of 2012 that were altered or deleted. The reason for this is that both the first as the second questionnaire were discussed with the municipalities and some welfare and/or elderly organizations located in the research areas. Some of these organizations thought the second questionnaire was too long. Therefore, some questions were deleted. These were mostly questions about people's physical and mental health since this thesis focuses more on the effect of environmental factors than it does on individual factors. However, to make sure that this thesis did get a good indication of the respondents' health, two questions were added. These questions were inspired by the research of RIGO (Leidelmeijer, 2018). The questions concerned the WMO use and indications for care.

The last part of the questionnaire touches upon the familiarity with local services and the use of these services. The list of local services was composed in consultation with both local governments. The municipalities were also given the opportunity to add some other questions they would like to see answered. In 2012, for example, this concerned the familiarity and use of specific services and facilities in the neighbourhood. In the 2018 questionnaire the municipalities wanted to know in what kind of houses the respondents lived in and if the respondents themselves provided informal care.

Primarily with regard to approaching the residents, the municipalities have played a big role within the data collection procedure. Fowler (2009) states that a case study has one particular requirement, which is gaining access to the institution or community that one wants to study. Some guidelines listed by the author were to find someone who knows the place and can advise you and to discuss the research with community leaders or officials and get their approval.

Although both municipalities were willing to help, the process of sending the first letter was different in both areas due to the new privacy law. Both municipalities were asked for the names and addresses of people aged 70 years and over living independently. The municipality of Hengelo however wanted to send the letter and the short questionnaire themselves to make sure the privacy of the respondents was respected. Since, the letter and questionnaire were sent by the municipality, the municipality also wanted to sign the letter. In the letter the author of this thesis was named as the person who would initiate the research and who would send out the second survey if the elderly wanted to participate. The municipality added a self-addressed stamped envelope because they thought that an envelope with the addresses of the RUG would be too devious. As a consequence, the response arrived at the municipality who consecutively send it to the author.

This process went differently with the municipality of Peel en Maas. The department of social development was not allowed to give the addresses due to the privacy law. The author, however, could request the addresses herself if the data would be used for scientific research (and only for scientific research). After the process of requesting this data, a document with 2293 names and addresses of elderly of 70 years and older was received. However, this document contained the names and addresses of all elderly aged 70 years and older. Thus, also the elderly living in care institutions. Therefore, the people living in care institutions were filtered. The municipality also expressed that in the letter that would be send to the elderly, the author could note that the municipality and the care organizations in the neighbourhood supported the research. However, the municipality could not sign the letter without first consulting this with other departments/persons. Since, this would prolong the process, it was decided that the letter would be send with a self-addressed stamp of the faculty of Spatial Sciences of the RUG and signed by the author herself. Both municipalities thus had their own take on the privacy law and although the letters and questionnaires were almost similar, the processes went differently.

3.5 Ethics

To make sure ethical issues are taken into consideration, the participants within a research should know and agree to be involved. In addition, the research should not harm the respondents physically and/or psychologically and should respect the integrity of the participants with confidentiality and anonymity. This research has therefore informed the participants about the research through an information letter. The participants were asked to sign an informed consent form in which the participant declared to be fully informed about the aim of this thesis and about how personal information will be treated. Also, the informed consent emphasized that participation within this thesis is voluntarily and that the participant had the option to withdraw from the research at any time without further explanation. In addition, the researcher has assured confidentiality and anonymity and has stressed that the data will only be used for the purposes of this thesis (see Flick 2015; Miles et al., 2013). The informed consent form that was used in Helden en Panningen is included in appendix 1 and the informed consent form that was used in the Berflo Es is included in appendix 2.

Although this research has tried to adhere to most of the ethical issues, there might still be a conflict of interest of civilians because the municipalities were involved in this research. Elderly might not dare to express negative thoughts because they are dependent on municipalities for care and sometimes even financial support. This thesis has tried to anticipate on this by emphasizing that the data remains strictly confidential and that the local governments will only have access to the final document in which information cannot be traced back to individual participants.

3.6 Data analysis

This paragraph explains how the data was analysed. The program that was used to perform the analyses was SPSS Data Entry Station (SPSS Inc. 1996-2003, version 4.0.0). To test the hypotheses of this thesis, the data from Helden en Panningen was compared to the data from the Berflo Es. Furthermore, the data from the baseline study in 2012 was also compared to the data gathered in 2018. Based on the theory, the assumption was made that place characteristics have a different effect in rural and urban areas.

Some of these place characteristics were a construct of multiple questions. The reason for this is that these questions could not be asked directly. Either because people might not have understood the question, would have misinterpreted the question, or might have felt uncomfortable answering the question. To compensate for this, it is possible to include several questions that collectively provide data for a single question. However, before one is allowed to sum the questions, one first needs to test the internal consistency between the questions. One can do so by looking at the correlation between the multiple questions. The correlation matrix shows the set of correlations possible between the variables. If the variables are significantly correlated with each other, there is a good argument to bundle them together and to create a single construct. A second method one can use to test the internal consistency, is using the Cronbach's Alpha test. Essentially what a Cronbach's alpha does, is looking how closely related a set of items is as a group. If the Cronbach's Alpha is above 0,7, one is allowed to combine the variables to a single construct. In this analysis, both methods were used to look at the internal consistency of the questions.

There were some questions for which the generated Cronbach's Alpha was lower than 0.7. This meant that the internal consistency between the questions was poor. For some of these questions, the Cronbach's Alpha was increased by adding, revising or discarding items. However, for some this did not work. An example of such a construct was the variable Informal Care. Since I did want to use this variable in my analysis, I checked what the Cronbach's Alpha was for this construct in 2012. The questions that together combined Informal Care also showed a Cronbach's Alpha lower than 0.7 in 2012. Consequently, the questions were still combined to construct the variable Informal Care.

In the research of 2012, a multi-level analysis was used. It was also the plan to use this data analysis in this research. However, later on in the process, this plan was changed. Before the data analysis started, a conversation with Laura Dorland had taken place regarding the analyses made in 2012. She advised to find someone who could help with the mixed model analysis. She noted that the mixed model analysis would be a difficult analysis, especially for someone with only a basic statistical education. Therefore, the statistic teacher from the faculty of Spatial Sciences was involved in the starting phase of the analysis. He advised to use a regression analysis instead of a mixed-model analysis. He stated that a mixed model analysis would be quite complicated and has a potential for misuse. It requires much more analysis and rendition than a normal regression analysis. Therefore, a decision was made to use a regression analysis with an interaction effect. First, because the mixed model analysis uses fixed and random effects. The random effect structure one uses in an analysis encodes the assumptions that one makes about how sampling units (subjects and items) vary, and the structure of dependency that this variation creates in one's data. Proper recognition of effects as fixed or random is critical at all stages of the experimental design (Barr et al., 2013). The mixed model analysis is thus based on a lot of assumptions and choices, which can easily be used inappropriately. Second, he mentioned that this thesis only focused on two places instead of the ten places that were included in the research in 2012. Therefore, a regression analysis with

an interaction effect would also be a suitable analysis to compare the two areas with one another.

For each hypothesis, descriptive data was collected by producing scatterplots and bar charts. The descriptive data gave a good indication of which variables might have a significantly different effect in both areas.

Second, a Mann-Whitney test was used to statistically compare differences between the two locations for the dependent variables of the hypotheses. The Mann-Whitney test was chosen because the dependent variables were not normally distributed.

Third, a linear regression with an interaction effect was used to model the relationship between the independent variables and the dependent variable. An interaction effect was used because the relation between the independent variables and the dependent variable are dependent on location. An interaction is to be observed when the nature and/or strength of the relationship between two variables changes as function of a third variable. When interaction effects are present, it means that the interpretation of individual variables may be incomplete or misleading. Using the linear regression model with an interaction effect, the location effect was determined for the relationship between the independent variables and the dependent variables.

Before location could be used in the analysis, a dummy needed to be made for this variable. Simply put, a dummy variable is a nominal variable that can take on either 0 or 1. Since place has two categories, 1 dummy variable was included in the regression model. The Berflo Es was coded as 0 and Helden en Panningen as 1. The latter, the omitted variable, is also known as the reference group because it is the group to which the other group will be compared to.

To compute the interaction effect one needs to multiple the two independent variables that 'interact' with one another. In this research, all the independent variables were multiplied separately with the location dummy variable. In the regression analysis, not only added all the independent variables but also the interaction variables.

The regression analysis, was also tested for multicollinearity. Multicollinearity occurs when independent variables in a regression model are correlated. This correlation is a problem because independent variables should be independent. When independent variables are correlated, it indicates that changes in one variable are associated with shifts in another variable. The stronger the correlation, the more difficult it is to change one variable without changing another. It becomes difficult for the model to estimate the relationship between each independent variable and the dependent variable independently because the independent variables tend to change in unison. The variance inflation factor (VIF) identifies correlation between independent variables and the strength of that correlation. VIFs greater than 5 represent critical levels of multicollinearity where p-values are questionable.

Within the analysis, often severe multicollinearity issues were found between variables. Sometimes, the interaction variables were even excluded. The reason that these variables were excluded is that the variables could be perfectly predicted from one or more of the other independent variables. This can be called perfect multicollinearity. A regression cannot be run when there is perfect multicollinearity among variables. According to Jaccard and Turrisi (2003) high collinearity between the interaction effect and its components is not problematic. This is not true for collinearity between the two independent variables. High collinearity between the two independent variables can lead to serious complications. Therefore the data was checked for high collinearity among independent variables. The regression results (without the interaction effects) showed that almost all variables had a VIF near to 1, which meant that multicollinearity did not affect most of the independent variables. The high levels of collinearity in the regression table that included the interaction effects were thus not caused

by collinearity between the independent variables but by collinearity between the interaction effect and its components. Jaccard and Turrisi (2003) mention that high levels of collinearity between a product term and its component parts generally will not be problematic for interaction analysis. However, since the level of multi-collinearity in this analysis were often critical for some variables and some interaction variables were even excluded, the variables with a high VIF were centred (Jaccard & Turrisi, 2003).

Centring variables is also known as standardizing the variables. This process involves calculating the mean for each independent variable and then subtracting the mean from the initial value of that variable. There are other standardization methods, but the advantage of just subtracting the mean is that the interpretation of the coefficients remains the same. The coefficients continue to represent the mean change in the dependent variable given a 1 unit change in the independent variable.

Since this research wants to find out how place characteristics have influenced the ISAs and the quality of life over the past five years, a comparison was made between the situation in 2012 and in 2018. The results of the paper of de Kam et al. (2012) could unfortunately not be used for this comparison because in their paper. De Kam et al. (2012) focused on ten Integrated Service Areas instead of two. As a consequence, the article is therefore not very informative with regard to the differences between the Berflo Es and Helden en Panningen in 2012. Because the comparison between 2012 and 2018 remained interesting, the dataset of 2012 was utilized in this thesis. The data of 2012 was modified in the exact same way as the data of 2018 and after that the same tests were used. Subsequently, the results of 2012 and 2018 were compared with another to see which relations were statistically significant in 2012 and if this had changed in 2018. However a critical stance must be held before reading these results due to the different response rates in both years. In the next paragraph, the results of the analysis will be discussed.

4. Context and Place Characteristics in the Berflo Es and Helden en Panningen

Table 4 presents the names and some information on the 2 selected ISAs. The names of the ISAs are accompanied by the names of the municipalities in which they are located. The ISA of Hengelo covers one neighbourhood and Helden en Panningen covers two core villages. Both ISAs are network-based. See chapter 2.6. A network based ISA means that it is based on using existing venues to co-locate services and to prioritize investments in homes that are suitable for aging in place. In the next paragraphs, both ISAs will be discussed separately.

Table 4: Some general information about both Integrated Service Areas. Source: de Kam et al., 2012, p. 33 & p. 40 & CBS, 2018.

ISA	Urban/Rural	Type of ISA	Total population living within ISA Boundaries	Total aged>65 Year: 2018
Hengelo, the Berflo Es	Urban	Network-based	6925 (CBS)	1110
Peel en Maas, Helden en Panningen	Rural	Network-based	22515	4795

4.1 Peel en Maas: Helden-Panningen

4.1.1 Situation 2012

Helden-Panningen is one of the other pilots and is located in the municipality of Peel en Maas. The population of Helden-Panningen is ageing and a lot of young people have moved away. Around 13.500 people live in the neighbourhood, of which an estimated 1.575 is over 70 years old (de Kam et al., 2012). At the same time, the amount of people per dwelling will decrease.

The municipality is trying to anticipate on this demographic development and conducts policies that promote ageing in place. For example by setting up the living agreement in the Wonen-Welzijn- Zorg (WWZ). Thirty-three parties signed this covenant and the main goal of this covenant is to reach a demand-driven supply of housing, care and welfare services. A fundamental thought within this policy is that small villages should also have or house facilities that support independent living. In addition to the covenant, the policy Living in the village WWZ 2008 – 2012, Pushing innovative boundaries together (*Leven in het Dorp WWZ 2008-2012, Samen innovatief grenzen verleggen*) was drafted. The municipality of Peel en Maas manages the project but the project belongs to all parties involved (de Kam & Damoiseaux, 2012b). Unlike any of the other pilots Helden-Panningen is the only ISA where concerted efforts have been made to include the local community, including older dwellers, in both the formal agreement and in the implementation of (software) elements (De Kam et al., 2012).

Just like the Berflo Es, Helden-Panningen can be categorized as a network based type of ISA. An important part of this network based type of ISA is that the village has a thriving local volunteer centre from which various forms of support are available, complementing formal care services. However, contrary to the type of ISA, the characters of the ISAs are different from one another. Helden-Panningen has a village like character (de Kam et al., 2012).

When it comes to physical development, the municipality tries to respond to the ageing population by differentiating the current housing stock. First of all, the municipality is making

the transition from large-scale to small-scale dwellings regarding nursing and care places for people with physical and/or mental disabilities. Second of all, the municipality is reducing and deconcentrating their residential care homes. At the same time, new houses will be built for elderly living with a care indication. These houses will compensate for the reduction of the number of residential care home. Lastly, since almost 70% of the houses in Helden en Panningen are privately owned, the municipality tries to coax residents to make the necessary adjustments in their house in time or to motivate them to leave their current home and exchange them for a more suitable home (de Kam & Damoiseaux, 2012b). concerning the physical environment, there are multifunctional centres with a varied range of facilities and services. For example Pantaleon Medical Centre. Pantaleon Medical Centre is a health centre in Panningen that includes a general practice, pharmacy and Proteion Thuiszorg. In Panningen, a small part of the elderly with an age over 70s can reach a supermarket, a doctor and community centre within 400 meters of their home. This means that the elderly who are frailer can easily reach these facilities. In Helden there is a supermarket and meeting centre for elderly partly within walking distance (de Kam et al., 2012).

Furthermore, both professional and voluntary advisors are active in Helden-Panningen with tasks such as the supply of information, support and home visits. The village has a local volunteer centre from which various forms of support are available (such as a buddy system), complementing formal care services (de Kam et al., 2012).

4.1.2 Situation 2018

Over the past five years no big changes have taken place regarding care programs in Helden en Panningen. An explanation for this is that the municipality has been governed on the basis of broad coalitions for years. As a consequence, there seems to be a constant vision regarding care, housing and ageing in place. Obviously, there have been some small changes. For example, the basic principles of Living in the village (*Leven in het dorp*) and self-management have been expanded and now also include housing, care, youth and participation. A consequence of this transition is that the municipality and welfare organizations now focus less on elderly and more on the community, and therefore the village as a whole (de Kam, 2019b).

With regards to the physical facilities, Helden en Panningen has realized almost all of the projects that were carried out in 2012. One of these projects was the new community centre Kepèl in Panningen. Welfare organization Vorkmeer discussed with local residents and user groups how Kepèl could become a viable community centre. As a result of these discussions, the day activities from Ringoven and KBO have relocated here. In addition, the Harmonie will also be housed here (de Kam, 2019b).

However, over the past five years, not everything has been realized or has gone to plan. An example of this is the location of the Viecuri clinic, which is an outpost of the hospital. The Viecuri clinic would have fitted perfectly in the Pantaleon Medical Centre and this was also intended to be the plan. However the outpost eventually located on a business park a little further away. The reason for this is that the initiator could not come to an agreement with the doctors in Pantaleon. According to the municipality this has resulted in a suboptimal solution. However, the municipality also indicated that it did not have the power to influence this decision (de Kam, 2019b).

Since most of the physical facilities have been realized, the government is now shifting its attention to the social domain. Vorkmeer has been given the task to give substance to welfare goals in the municipality. In 2012 the role of well-being was driven by a strong supply of products and services. However, this behaviour does not fit the current course of action

anymore. Therefore, Vorkmeer now focuses more on how to do things with and alongside the community instead of doing things for the community.

Nevertheless, according to the results of the quantitative study of de Kam (2019b), Helden and Panningen does not do immensely well when it comes to living longer independently in comparison with the control areas. It seems that the control areas have caught up with Helden en Panningen. Since 2012, the difference between Helden en Panningen and the control areas has changed from 2% to a minus 1%. Therefore, one can say that Helden en Panningen meets the requirements less than it did before. In addition, the amount of frail elderly that live independently in Helden en Panningen is lower than in the control areas. Moreover, there are more elderly in Helden en Panningen that move to an institution than there are in control areas. This is not a random outcome because more than half of the elderly that live independently live within 500 meters of a care institution (de Kam, 2019b).

The fact that Helden en Panningen does not distinguish itself strongly from the control areas when it comes to living longer independently might be related to the living environment. De Kam (2019b) shows that the control areas score better on the suitability of the living environment for elderly than Helden en Panningen. This does not have to do with the proximity or accessibility of services since they do not seem to be decisive factors when it comes to promoting or hindering independent living in Helden and Panningen. The housing stock, on the other hand, might have something to do with this finding. Helden en Panningen does not seem to have a more suitable housing stock than the control areas. The proportion of unsuitable housing is about the same proportion as in control areas. It should, however, be stated that the proportion of elderly that live in an unsuitable home decreases more strongly with age than in control areas. This might be due to the measures that have been taken by the municipality in Helden en Panningen. For example, the municipality encourages elderly to make the necessary adjustments in time or motivates them to leave their current home and exchange it for a more suitable home.

De Kam (2009b) has also looked at the use of care. De Kam (2009b) has done this by looking at the use of the WMO. It appears that elderly in Helden en Panningen make less use of domestic help and day activities than elderly in control area. In contrast, elderly in Helden en Panningen make more use of counselling and transport facilities.

4.2 Hengelo: the Berflo Es

4.2.1 Situation 2012

In 2008 the policy document Neighbourhood for Everyone (*Wijk voor Iedereen*) was published, which is roughly translated as Neighbourhood for everyone. In this policy document, the municipality of Hengelo announced that it wanted to set up ten Integrated Service Areas throughout the municipality. The municipality wanted to create neighbourhoods that would fit the needs of younger and healthy people, but even more of elderly and disabled people. The latter needed to be able to live independently in the neighbourhood for as long as possible.

The neighbourhood the Berflo Es was chosen as a pilot project (de Kam & Damoiseaux, 2012a). The Berflo Es is a neighbourhood southeast of the centre of Hengelo. Around 21.000 people live in the two postal zones in which the Berflo Es is located. An estimated 3.000 are elderly people aged 70 years and older. Within the boundaries chosen for this research, there are 697 elderly of 70 years and older living independently. The area can be described as a combination of on the one hand an urban, post-war land-based environment and on the other hand a green urban living environment. The Berflo Es is a network type of Integrated Service

Area. This means that the available supply of care and welfare services are connected and form a coherent network, made accessible by a coordinating officer (omtinker or case manager) (de Kam et al., 2012).

The Berflo Es mainly focuses on its physical development such as housing and the distance to facilities. For example, of the approximately 4000 homes in the Berflo Es, 1200 have been demolished and 900 of these houses will be rebuilt and will become accessible by wheelchair. Various small-scale projects are being developed that offer an alternative to intramural facilities. However most of the owner-occupied houses are not suitable yet. There is no nursing home or residential care home located in the Berflo Es. There are however extramural facilities for elderly and people with a disability where they can receive care.

The municipality will also realize a multifunctional accommodation, including a care on demand facility, a small-scale shopping centre, a meeting and a community centre. The location of the MFA is not geographically located in the centre of the neighbourhood. Therefore three small-scale social affiliates or community centres have been set up in the three other neighbourhoods of the Berflo Es. For people with reduced mobility, the community centres can act as meeting and eating points. There are also plans to cluster the general practitioner, the pharmacy and a physiotherapist in one building. For a part of the people aged over 70, at least one supermarket, a GP and a meeting centre are within 400 meters of their home. This means that elderly can easily reach these facilities (de Kam et al., 2012).

As social restructuring activities elderly advisors are for example active in Hengelo and a district nurse is active in the Berflo Es. The informal care support centre in Hengelo offers, among others, support for informal caregivers, practical help at home from volunteers and contact with fellow patients. There is also the Noaberloket where supply and demand of free services are connected (de Kam & Damoiseaux, 2012a).

The municipality has made an inventory with housing-, care- and welfare parties to contemplate what kind of contribution everyone can make. The report Living with care and welfare in the Berflo Es (*Wonen met zorg en welzijn in Berflo Es*) describes the requirements and a plan of action. The main goal of this plan is that elderly can live independently (at home) for as long as possible. To achieve this, parties involved intervene on two fronts: through extensive physical and social restructuring. Not only the municipality but also every party contributes to this financially and process-wise (de Kam & Damoiseaux, 2012a).

4.2.2 Situation 2018

In contrast to Helden en Panningen, the Berflo Es seems to do quite well with regards to living longer independently. Between 2010 and 2014 15% of the elderly in the Berflo Es moved. This was slightly more than the national average (14%) but less than in the control areas where 16,9% of the elderly moved. In addition, 5,9% of the elderly in the Berflo Es moved to an independent dwelling, which was higher than in the control areas, where 3,8% moved to an independent dwelling. Moreover, the Berflo Es has the highest percentage of frail people that live independently (de Kam, 2019a).

The biggest difference between the Berflo Es and its control areas is the share of elderly that moved to an independent dwelling in another neighbourhood. In the Berflo Es only 5,4% of the elderly moved to another neighbourhood, in comparison to 9,3% of the elderly in the control areas. The share of elderly that lives intramural has never been incredibly high in the Berflo Es. However over the past years it has declined even more. In 2016 only 2% of the elderly lived intramural. In the control areas this percentage was 5%. These low percentages can be explained by the absence of intramural facilities within the borders of the Berflo Es. This is also why the Berflo Es does not score well on the proximity of residential care

locations. Another explanation could be that the Berflo Es has a lower share of unsuitable houses and a lower share of frail elderly that live in these unsuitable houses in comparison to the control areas. A closer look will now be taken on the physical and social developments that have occurred as a consequence of policy programs over the past five years within the Berflo Es (de Kam, 2019a).

Since 2012, a considerable amount of the intended facilities have been realized. An example of this is the multifunctional accommodation (MFA). The local government wanted the MFA to become a meeting place for the neighbourhood where all kind of activities would take place. Up until now, however, most people that come here specifically come for the facilities that are located here. This is partly as a result of the competition with other facilities in the neighbourhood but also because residents do not feel connected to the new location yet and are not attracted by it. This is also true for the new location Uit en zo. Care organization Aveleijn has moved its day activities to Uit en zo. However, the organization has seen a sharp decline in the use of their day activities (de Kam, 2019a). Apparently, elderly in the Berflo Es use facilities and services less if they are not familiar to it.

The realization of the MFA has also not come without a struggle. In the beginning the Berflo Es had a very enthusiastic group of drivers who wanted to make the MFA a success. At that time, health care providers and corporations still had the opportunities and means to give a broad interpretation to their duties. Moreover, there still was public funding from the province and consequently an external project manager. However, in the period after 2012, all initiators had to step down due to the transitions in healthcare and the new Housing Act. At the same time, the commitment of the municipality decreased and care organizations could not live up to their original commitments. As a consequence some projects, such as the development of a district health centre and a nursing home, were not established (de Kam, 2019a).

With regard to the social domain, there have also been some developments over the past five years. Various cooperative relations that were formed in the start, have been maintained, however with a more modest ambition and a limited mandate. In addition, the key team that functioned in 2012, has been succeeded by Wijkracht. Wijkracht focuses on everything that improves the welfare of elderly. Wijkracht tries to be alert to developments in the neighbourhood, it tries to support elderly who request help with living independently and it tries to foster the exchange of information between professionals. However, a negative development with regards to the social domain is that elderly advisors at Wijkracht see a decline in care and support for the elderly as a consequence of the policy transitions and the cuts in the government budget. This has increased the isolation and multi-complexity of ageing in place (de Kam, 2019a).

In addition, cooperation's within the Berflo Es believe that there is enough suitable housing available within the neighbourhood. Cooperation's are therefore a bit hesitant to build new housing. As a result, these cooperation's now invest in the extension of the lifespan of small housing projects in consultation with the current residents (de Kam, 2019a).

De Kam (2019a) has also looked at the use of care. It appears that elderly in the Berflo Es make more use of domestic help, day activities and transport facilities than elderly in control area. For example, 2,05% of the elderly in the Berflo Es make use of day activities in comparison to 1,45% in control areas. In contrast, elderly in the Berflo Es make less use of counselling.

The Berflo Es (18%) does not score well on the functional suitability of the living environment in comparison to the control areas (30%). In the Berflo Es, the living environment is found to be less suitable than in control areas. The share of unsuitable

housing, on the other hand, is lower than in control areas. It seems that there are more elderly in the Berflo Es that live in suitable houses than there are in the control areas. In addition, de Kam (2019a) found that as age increases, the difference with the control areas also increases.

De Kam (2019a) has thus found that the share of elderly that live independently in the Berflo Es is higher than the share of elderly that live independently in Helden en Panningen. In addition, the proportion of frail elderly that live independently is also higher in the Berflo Es than in the Helden en Panningen when compared with the control areas. A clear explanation cannot be found in the creation or realization of physical projects or social developments. The local governments and welfare organization in both ISAs have created new facilities and services. However both ISAs have also encountered problems over the past five years with the realization of some of these projects. The findings of de Kam (2019a) do suggest that the housing stock in Helden en Panningen is less suitable than in its control areas. This is the other way around for the Berflo Es. It seems that there are more elderly in the Berflo Es that live in suitable houses. The Berflo Es, however, does not score well on the functional suitability of the living environment. This is also true for Helden en Panningen. The data analyses in this thesis will further research the differences between elderly in Helden en Panningen and elderly in the Berflo Es.

5. Results

This chapter presents the results of the quantitative analysis. First, a summary will be given of the response rates of the questionnaires. Second, the main findings for the three themes will be discussed: independent living, health & the use of formal and informal care. A more detailed discussion of the results, can be found in the appendix 10. In addition, the questionnaire and an overview of the response rates can be found in appendix 8.

5.1 A summary of the response rates of the questionnaire

The overall picture of the response rates are that elderly in the Berflo Es are more frail than elderly in Helden en Panningen. There are several questions that support this argument. Response rates that differ considerable for both areas are, for example, that in the Berflo Es more elderly live independently without a partner in comparison to Helden en Panningen. There are also more elderly in the Berflo Es that encounter limitations in comparison to Helden en Panningen. 25,3% of the elderly in the Berflo Es have experienced several, shorter periods with limitations over the past five years, in Helden en Panningen this percentage was 19,7%. In addition, in the Berflo Es 43,2% of the elderly indicated that their daily activities were somewhat limited by physical complaints and limitations. In Helden en Panningen this was true for only 25,5% of the elderly. These response rates thus suggest that elderly in the Berflo Es are more frail than elderly in Helden en Panningen.

However, although the response rates indicate that there are more frail elderly in the Berflo Es than in Helden en Panningen. It is striking that elderly in Helden en Panningen more often indicate that they encounter more severe issues or limitations. 4,4% of the elderly in Helden en Panningen experiences problems in daily life because of reduced mobility. This was true for 1,2% of the elderly in the Berflo Es. In addition, 3,1% of the elderly in Helden en Panningen answered they experience memory loss, in the Berflo Es this was 1,2%. An explanation for this finding could be that frailty consist of several limitations within functioning but is used as a homogeneous indicator of frailty. Frailty can thus include specific problems like cognitive functioning, mobility, or psychosocial functioning but it does not reference to these specific problems. It could thus very well be that a person is considered to be frail when they encounter mobility issues even though they are completely healthy when it comes to the other functioning's. Consequently, a variety of different frailty-related problems can lead to someone being categorized as frail (Bielderman et al., 2013). In addition, the measurement of frailty shows a limited range for some indicators. For example when measuring the GFI, most questions can be answered with yes or no. One is either frail or not frail. There is no gradation between these two options (Peters et al., 2012). This may lead to extremes in the outcomes.

When it comes to receiving care, elderly in Helden en Panningen receive informal care more often. 4,7% of the elderly receive family care more than once a day, for elderly in the Berflo Es this is 1,2%. However, in total, elderly in the Berflo Es receive more informal care than elderly in Helden en Panningen. 12,3% of the elderly in the Berflo Es receives care from an informal caregiver, in Helden en Panningen 10,6% of the elderly receive care from an informal caregiver. What kind of care elderly receive is displayed in the table beneath (table 5).

Table 5: An overview of the type of informal care elderly receive

Type of family care	**The Berflo Es**	**Helden en Panningen**

Domestic help	9,8%	8,0%
Preparing meals	1,2%	2,8%
Assistance with personal care	2,4%	2,6%
Assistance with medical care	1,2%	2,1%
Company, comfort, distraction and good conversations	2,4%	4,7%
Accompanying and/or transporting	4,9%	6,1%
Help with financial affair and/or other administration	2,4%	7,3%
Chores in the household	3,7%	5,0%
Other matters	4,9%	1,2%

There are only small differences between the two ISAs with regards to the type of informal care elderly receive (table 5). Elderly in Helden and Panningen receive slightly more informal care with regards to most types, with the exception of Domestic help and Other matters. Some of these differences can be explained by environmental factors. For example, the Berflo Es scores better on the proximity of public transport than Helden en Panningen (Leidelmeijer, 2018). As a consequence, elderly in Helden en Panningen might depend more on their caregivers for transportation. In addition, elderly in Helden en Panningen might need to use more financial advice because more than half of the elderly own their house. The share of elderly that owns their house in Helden en Panningen is 73,9%. This is in contrast to elderly in the Berflo where more than half of the elderly are tenants (50,6%). Moreover, in the Berflo Es, 48,8% of the elderly live in an apartment, in Helden en Panningen this percentage is 19,0%. This may also be the reason why 32,9% of the elderly in the Berflo Es live in a house that is adapted for the elderly. In comparison to 22,2% of the elderly in Helden en Panningen.

Although elderly in the Berflo receive less informal care, they do receive more home care (13,6%) than elderly in Helden en Panningen (8,4%). These results correlate with elderly's health status. In the Berflo Es there are more elderly who encounter some physical limitations or have some health issues. For this reason they might need help within the household. In Helden en Panningen, there are less elderly who encounter some physical limitations, but more elderly that encounter more severe health issues or physical limitations. Therefore, these elderly might request care that surpasses the care provided within home care.

Lastly, elderly in both areas gave a similar response rate when asked if they believed they could continue to live independently in the neighbourhood. This response rate was 69,5% for elderly in the Berflo Es and 68,4% for elderly in Helden en Panningen. The following paragraph will make clear if the statistical results will support this statement and if this has changed over the past five years.

5.2 Living Longer Independently

5.2.1: in an urban Integrated Service Area, elderly live longer independently than in a rural Integrated Service Area.

The original hypothesis is that elderly in urban ISAs live independently longer than elderly in rural ISAs. This hypothesis could not be tested directly because one is not able to do this with just a single measurement. However, given the relatively limited - and decreasing - number of places for intramural living, it is a fact that most people are going to live independently. That is why, in addition to the question of whether elderly can live

independently longer, it is also important that their quality of life will be sustained, even if the number of limitations and the vulnerability increases. Therefore, the assumption is that elderly live independently longer if their satisfaction with the living situation is higher.

The first hypothesis will be used to explain how the data has been analysed. For the other hypothesis, this can be found in the appendix and this chapter will only discuss the main findings. The first hypothesis was composed as follows: Elderly people in urban ISAs are more satisfied with their living situation than elderly in rural ISAs. The hypothesis will be tested, based on a number of independent variables from the survey - such as being able to function independently at home and the accessibility of services. The expectation is that some of the variables might have an effect on the satisfaction with the living situation. These variables are shown in Figure 5. Table 6 also gives an overview of these variables. In addition, age & gender have been included as control variables.

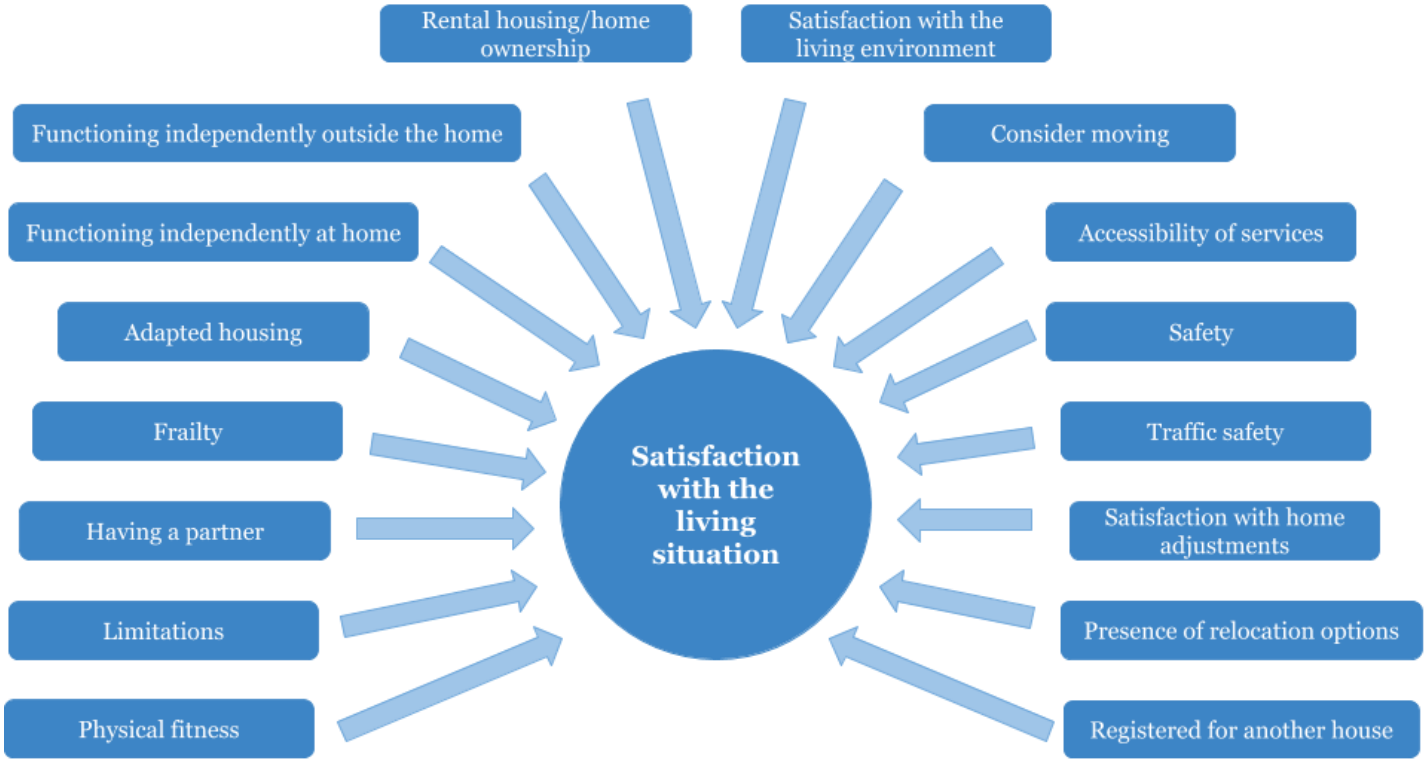

Figure 5: Conceptual Model Hypothesis 1 **Source: de Kam et al., 2012b**

Table 6: List of variables used for hypothesis 1

Name (variable name)	*Type*	*Data item(s)*
Satisfaction with the living situation	Dependent variable	A sum of the following variables: q25_extra + q26_extra + a7_extra

Physical Fitness	Independent variable	The variable a2
Limitations	Independent variable	A sum of: q_7 + q_8 + q_13_extra + a_3_extra
Having a partner	Independent variable	The variable a6_extra
Frailty	Independent variable	Based on the first survey and the GFI Measure (GFI_Total)
Adapted housing	Independent variable	A sum of the variables: q_29_extra + q_30_extra + q_31_extra + q_32a_extra
Functioning independently at home	Independent variable	A sum of the variables: q_17_3_extra + q_17_4_extra
Functioning independently outside the home	Independent variable	A sum of the variables: q_9_extra + q_10 + q_17_1_extra + q_17_2_extra
Rental housing/home ownership	Independent variable	The variable q_28
Satisfaction with the living environment	Independent variable	A sum of the following variables: q_45 + q_50
Consider moving	Independent variable	The variable a7.extra
Accessibility of services	Independent variable	A sum of the variables: q_68_1 up to q_68_8 + q_37
Safety	Independent variable	A sum of the variables: q_38 + q_39 + q_40 + q_41 + q_42_extra
Traffic safety	Independent variable	The variable q_43_extra
Satisfaction with home modifications	Independent variable	The variable q_33
Sufficient relocation options	Independent variable	The variable q_48_extra
Registered for another house	Independent variable	The variable q_49_extra

For each hypothesis some descriptive data was produced. Table 7 gives some descriptive statistics on the satisfaction with the living situation in 2018, as well as the satisfaction with the living situation in 2012. The mean of the dependent variable, Satisfaction with the living situation, is 6.50 in the Berflo Es and 6,54 in Helden en Panningen. This data suggest that elderly in Helden en Panningen are on average slightly more satisfied with the living situation than elderly in the Berflo Es. In 2012, this was the other way around. In 2012, elderly in the Berflo were on average more satisfied with the living situation than elderly in Helden en Panningen. The descriptive data thus suggest that elderly in Helden en Panningen have become more satisfied with the living situation. Moreover, elderly in the Berflo Es have become less satisfied with the living situation.

Table 7: Some descriptive statistics on the Satisfaction with the Living Situation for both areas

Satisfaction with the living situation	Mean	Std. Dev	Minimum	Maximum	N	Missing
The Berflo Es – 2012	6,59	0,85	0,00	7,00	129	11
The Berflo Es – 2018	6,50	0,90	2,00	7,00	58	25
Helden en Panningen - 2012	6,25	1,31	0,00	7,00	129	22
Helden en Panningen - 2018	6,54	0,83	2,00	7,00	280	155

A Mann-Whitney test was used to find out if the difference in 2018 was also statistically significant. The Mann-Whitney test was not significant, p = 0,806. The satisfaction with the living situation does not differ significantly for elderly in Helden en Panningen and elderly in the Berflo Es. In 2012, this difference was also not significant. However, the findings did reveal that the p-value in 2012 was closer to the significance level of 0,05. This suggest that a trend was visible in 2012 in which elderly in the Berflo Es were more satisfied with the living situation than elderly in Helden en Panningen.

Table 8: The results of the Mann-Whitney U test for the dependent variable Satisfaction with the living situation

	Mann-Whitney U	Asymp. Sig.
Satisfaction with the living situation 2012	7401,50	0,067
Satisfaction with the living situation 2018	7982,50	0,806

To find out which of the variables in table 6 might have an effect on the satisfaction with the living situation, a linear regression was used with an interaction effect. Due to the large number of variables, all independent variables were added to the model and deleted one by one if they did not appear to have a significant contribution. Ultimately, the following variables were excluded: gender, age, having a rental house or owning a house, physical fitness, limitations, registered for other housing, and sufficient relocation options. The explained variance of the model was 49,9% and the regression was significant p = 0,014.

The regression results showed that the interaction effect of home modifications was significant (p = 0,035). There exists a positive relation between home modifications and the satisfaction with the living situation. However this was only true for elderly in Helden en

Panningen and not for elderly in the Berflo Es since the main effect is not significant (p = 0,102). This means that elderly in Helden en Panningen who have adjusted their homes, are more satisfied with the living situation than elderly who have not.

The main effect, as well as the interaction effect, of traffic safety are also significant. In the Berflo Es (B= 1,564, p = 0,036), as well as in Helden en Panningen (-1,641, p = 0,035), traffic safety has an effect on the satisfaction with the living situation. The estimate of the regression slopes indicates that the slope of the Berflo Es is steeper than the slope of Helden en Panningen (1,564 – 1,641 = -0,077. -0,077 as against 1,564). In the Berflo Es, there is a significant positive relation between traffic safety and satisfaction with the living situation. The higher the traffic the safety, the more satisfied elderly are with the living situation. In Helden en Panningen, this effect is close to zero. It can therefore be assumed that in Helden en Panningen traffic safety barely has an effect on the satisfaction with the living situation for elderly.

After the same variables were excluded for the data of 2012, the regression was significant (p = 0,000) and the explained variance was 54,8%. However, the only significant variables in this table were the main effect and the interaction effect of the variable consider moving. Both effects showed a negative relationship. Elderly who did not want to move, were more satisfied with the living situation. This was true for both ISAs. However, in Helden en Panningen this effect was stronger than in the Berflo Es.

Since the consideration to move was the only significant variable, the decision was made to also conduct a separate analysis for the data of 2012. The variables: gender, age, rental house or owning a house, physical fitness, limitations, and satisfaction with home modifications were excluded in this analysis. The explained variance was 59,9% and the p-value was 0,000.

In this analysis, the main effect of the consideration to move was still significant. Elderly who did not want to move were more satisfied with the living situation than elderly who did want to move. The consideration to move was thus significant in 2012 and is still significant in 2018. This might indicate to reverse causality between the consideration to move and satisfaction with the living situation. This will be discussed more thoroughly in the conclusion chapter.

The main effect of functioning independently outside the home was also significant in 2012. The more elderly could function independently outside the home, the more satisfied they were with the living situation. Since the interaction effect was not significant, this was true for both areas. However, in contrast to 2012, this effect is no longer significant in 2018.

The interaction effect of being registered for other housing was also significant (p = 0,015). Elderly in Helden en Panningen who were registered for other housing in 2012, were less satisfied with the living situation. This effect was not significant for the Berflo Es. In 2018, this variable was no longer significant. However, this could also be due to the fact that the questions were asked differently. In 2018, being registered for other housing also meant that you were registered for a housing association. In the questionnaire of 2012 this was not explicitly named. The outcome of 2012 thus says a lot more about people their wish to move.

This paragraph has also looked at some questions regarding moving. However, these questions can only be used to extract indirect information on living longer independently. The elderly were asked what type of housing they lived in (question 5), whether they would like to move, and if so to what type of housing they would like to move (question 46). It is assumed that urban ISAs function better than rural ISAs. The expectation is therefore that urban elderly who live in a normal house (answer 1 and 2 of question 5) want to move less often (or want to move more often to a normal house) than rural elderly who live in a normal house. The distribution of the response to this measure is shown in table 9. The responses of 2012 is also included. The differences between the two ISAs are not very large, but the data does invalidate

the assumption slightly. Urban elderly who live in a normal house do not want to move less often (and do not want to move to a normal house more) than their rural counterparts. This has not changed over the past five years. What has changed over the past five years is that the difference between the two areas for the category moving to elderly housing has changed slightly. It has increased for both the Berflo Es and Helden en Panningen. In addition, the share of elderly that wants to move to a care home has decreased in Helden en Panningen and increased in the Berflo Es.

Table 9: Housing preferences of elderly living independently if they were to move

	Year of data collection	*The Berflo Es (N=79)*	*Helden en Panningen (N=417)*
To a normal house or not wanting to move	2012	86,1%	87,7%
	2018	82,4%	84,6%
To elderly housing	2012	11,4%	10,1%
	2018	14,7%	14,1%
To a care home	2012	2,5%	2,2%
	2018	2,9%	1,3%

A regression analysis was used to analyse if the difference is also statistically significant. In the model the following independent variables were included: the amount of limitations, feelings of safety, rental housing or home ownership, whether their health forms an obstacle for social activities, having a partner, the satisfaction with the general practitioner, the pharmacy, the grocery store and meeting places (and their interaction effects). The results show that the differences in table 9 are not significant. Thus, the housing preferences of elderly in urban ISAs and elderly in rural ISAs does not differ. This has not changed over the past five years.

In 2018, however, feelings of safety do have a significant effect on housing preferences. In Helden en Panningen the negative relationship between feelings of safety and wanting to move is significantly stronger than in the Berflo Es. If elderly people in Helden en Panningen do not feel safe in the neighbourhood, they feel a stronger need to move than elderly in the Berflo Es.

In 2012 this was the other way around. In 2012, elderly people in the Berflo Es felt a stronger need to move if they did not feel safe than elderly in Helden en Panningen. Over the past five years, safety thus have become more important for elderly in the Helden en Panningen and less important for elderly in the Berflo Es regarding living longer independently.

Conclusion 5.2.1

The conclusion of this paragraph is that the findings do not give a direct answer on the question if elderly in urban ISAs live longer independently than their counterparts in rural areas. There are however some factors that influence the satisfaction with the living situation, such as home modifications and traffic safety. In both areas traffic safety has a significant effect on the satisfaction with the living situation. In the Berflo Es, there is a significant positive relation between traffic safety and satisfaction with the living situation. The higher the traffic the safety, the more satisfied elderly are with the living situation. In Helden en Panningen, this effect is close to zero. It can therefore be assumed that in Helden en Panningen traffic safety barely has an effect on the satisfaction with the living situation for elderly. A likely explanation for this is that rural areas often score higher on indicators such as traffic safety. Elderly in rural

areas could therefore see traffic safety as obvious and take it for granted. Consequently, traffic safety might not really influence the satisfaction with the living situation.

In addition, there exists a positive relation between home modifications and the satisfaction with the living situation. However this is only true for elderly in Helden en Panningen and not for elderly in the Berflo Es. This means that elderly in Helden en Panningen who have adjusted their homes, are more satisfied with the living situation than elderly who have not. A reason for this difference might be that a lot of elderly in Helden en Panningen still live in a detached home. In the Berflo Es this amount is a lot smaller. In addition, more than half of the elderly in the Berflo Es live in an apartment. It could be that elderly in Helden en Panningen are in greater need of home modifications. As a consequence this might influence to the satisfaction with the living situation. Once elderly do adjust their home, their living situation will improve and as a consequence the satisfaction with the living situation will also increase.

Home modifications have become more important over the past five years when it comes to living independently longer. It could be that this is a result of the increased focus of the governments on extramural living and the closing of intramural institutions. Possibly elderly now first make adjustments in the home before they move to intramural institutions.

Another development that might be a consequence of the decrease in intramural housing is that the share of elderly that wants to move to elderly housing has increased for both the Berflo Es and Helden en Panningen. There is a bigger chance that elderly have to move to another neighbourhood if they want to move to a care home. This has possibly decreased the preferences for care homes and increased the preference for elderly homes. In Helden en Panningen the findings indeed suggest that the share of elderly that wants to move to a care home has decreased. However, this decrease in the preference for care homes is not found in the Berflo Es. An explanation for this could be that there are more frail elderly that live in the Berflo Es (Leidelmeijer, 2018). These elderly might not feel comfortable or safe living in a normal house and require the extra support, facilities and adaptions that are supplied in either elderly housing or care homes. A policy recommendation would therefore be to increase the supply of elderly housing to compensate for the decrease of places in care homes.

In conclusion, satisfaction with the living situation is not dependent on the characteristics of the elderly or on strong objective indicators, such as accessibility of facilities. Although these indicators are an important consideration when designing ISAs, they appear not to have a significant impact on satisfaction with the living situation. What has been found is that the factors that influence the living situation in both areas are also the indicators on which the areas score poorly. Helden en Panningen for example still has a lot of houses that have not been adapted and are thus not suitable for ageing in place. Moreover, elderly in the Berflo Es do not feel completely safe within traffic. Both these factors influence the satisfaction with the living situation and indirectly living independently negatively. It is therefore key to improve the traffic situation in the Berflo Es and the quality of housing for elderly in Helden en Panningen. This corresponds with the idea that living independently longer is no longer about just living independently longer but that the focus has centred more on improving and/or sustaining the quality of life.

5.2.2: In rural Integrated Service Areas there are more elderly people living independently that experience health problems than in urban Integrated Service Areas.

This thesis assumes there are more elderly people with health problems living independently in rural ISAs than in urban ISAs. The descriptive data of 2012 supports this assumption. In 2012, elderly in Helden en Panningen had more health problems than elderly in the Berflo Es. However, in 2018, this effect has turned around for the two ISAs. The mean ranks in 2018

indicate that elderly in the Berflo Es experience more health issues than elderly in Helden en Panningen. Both effects, however, were found not to be significant. Although not significant, the outcome does indicate that elderly in the Berflo Es are submit to more health issues than elderly in Helden en Panningen.

In 2012, having a partner and having a rental house or owning a house had a significant effect on health issues. Elderly who had a partner experienced more health issues and elderly who lived in a rental house experienced more health issues. In 2018, these control variables no longer had an effect on the outcome. In both years, no differences were found between the two ISAs.

This paragraph has also analysed if elderly people in Helden en Panningen use more medicines than elderly in the Berflo Es. In 2012, there were significantly more elderly in Helden en Panningen that used four or more medicines than there were in the Berflo Es. In 2018, however, this difference is no longer significant.

In addition, no significant differences were found regarding the question if elderly are able to completely function independently on a daily basis. Elderly people in the Berflo Es do not function independently significantly more often than elderly people in Helden en Panningen. This has not changed over the past five years. The hypothesis therefore has to be rejected.

Conclusion 5.2.2

The results do not show there is a significant difference in health issues in the Berflo Es and Helden en Panningen. In rural ISAs there are not more elderly people living independently that experience health problems than in urban ISAs. The opposite may even be true. Although this difference is not significant, the descriptive data of this hypothesis has shown that elderly in the Berflo Es experienced more health issues than elderly in Helden en Panningen. A reason for this, could be that although intramural institutions have closed in Helden en Panningen, there are still more intramural alternatives in Helden en Panningen than in the Berflo Es. Elderly that encounter health issues in Helden en Panningen might move faster to one of these institutions than their counterparts in the Berflo Es.

5.2.3: In rural Integrated Service Areas more frail elderly people live independently than in urban Integrated Service Areas.

This thesis assumes that there are more frail elderly that live independently in rural ISAs than there are in urban ISAs. Based on the estimated GFI, described in the methodology chapter, the findings suggest the frailty scores of elderly in the Berflo Es and the frailty scores of elderly in Helden en Panningen did not differ significantly from each other in 2012. Thus, in 2012 there did not live more frail elderly in Helden en Panningen than there lived in the Berflo Es. Having a partner, however, did significantly predict the frailty level in 2012. Elderly that did not have a partner were more frail.

The findings in 2018 differ from the findings in 2012. In 2018 the frailty of elderly does differ significantly between the two ISAs. Elderly in the Berflo Es have a higher frailty, than elderly in Helden en Panningen. However, what does correspond with the findings of 2012 is that having a partner still significantly predicts frailty. Elderly who do not have a partner, experience a higher level of frailty than elderly who do have a partner. This is true for both ISAs.

In addition to the estimated GFI, a more extensive GFI measure was used to test the hypothesis for 2018. The GFI measure is based on 15 questions. In 2012, de Kam et al. (2012) included all 15 question of the GFI measure in their questionnaire. However in the questionnaire of this research some question were replaced or removed because there were elderly organizations active in both areas that thought the questionnaire was too long. Of the 15 questions that together form the GFI score, 12 questions were included. The correlation

between the estimated GFI score and the more extensive GFI is 0,615. This shows there is a high correlation between the estimated GFI score and the extensive GFI score. Table 10 gives an overview of the average GFI score for both measures. The table shows that elderly in the Berflo Es, on average have a higher frailty than elderly in Helden en Panningen. This is true for the estimated GFI score, as well as the extensive GFI. Nevertheless, table 10 also shows that the average frailty scores of the estimated GFI are slightly higher than the frailty scores of the extensive GFI. Therefore, the extensive GFI score was also used to statistically test the hypothesis. The results from this analysis contradict the outcome of the estimated GFI score. Based on the results of the extensive GFI, the frailty scores in both ISAs do not differ significantly from each other.

Table 10: GFI scored based on the preliminary questionnaire and the follow-up questionnaire

Location	Frailty GFI score in preliminary questionnaire	Frailty GFI score in extensive questionnaire
The Berflo Es	2,29	1,97
Helden en Panningen	1,70	1,49

Conclusion 5.2.3

In 2012, no significant difference was found between the Berflo Es and Helden en Panningen regarding the amount of frail elderly that lived independently. In 2018, however, the findings contradict one another. The descriptive data shows that the average GFI score is higher in the Berflo Es than it is in Helden en Panningen. This corresponds with the statistical test, suggesting that the two ISAs do differ significantly from each other based on frailty levels. Elderly in the Berflo Es are more frail than elderly in Helden en Panningen. However, when a more extensive GFI score is used, the outcome is no longer significant. The outcomes of the two GFI measure thus differ. However, although the outcomes vary, the majority of the findings suggest that in 2018 more frail elderly live independently in rural ISAs than in urban ISAs.

A critical stance should however be adopted to the outcome of this hypothesis. In contrast to the study of 2012, this research did not select the respondents based on their frailty. This means that there is an uneven distribution of frailty groups and that in Helden en Panningen, the very frail elderly are not represented. There is a possibility that the frailty groups are a correct representation of the actual populations and that the Berflo Es has more frail elderly that live independently. However, since this is impossible to find out in the realms of this thesis, one should take a critical stance to the outcome of this hypothesis.

5.3 Health and the use of formal and informal care

5.3.1: In rural areas, elderly people living independently make more use of informal care than elderly people living independently in urban areas

This hypothesis states that elderly people in a rural ISAs make more use of informal care than elderly people in urban ISAs. Figure 6 and figure 7 show the difference between the ISAs for the two elements that together constitute the outcome measure of informal care: family care and voluntary care. One can see that the difference in the average amount of support of a volunteer between the two ISAs is close to zero (figure 6). There are only minor differences found between the two areas. These minor differences are that elderly in the Berflo Es on average make slightly more use of volunteers and that in both areas the average use of volunteers has slightly increased. The average amount of support of a family caregiver, shown in figure 7, however does suggest that there are differences between the two areas. Over the

past five years elderly in Helden en Panningen have made more use of the support of family caregivers. However the average amount of support of a family caregiver has decreased quite a lot.

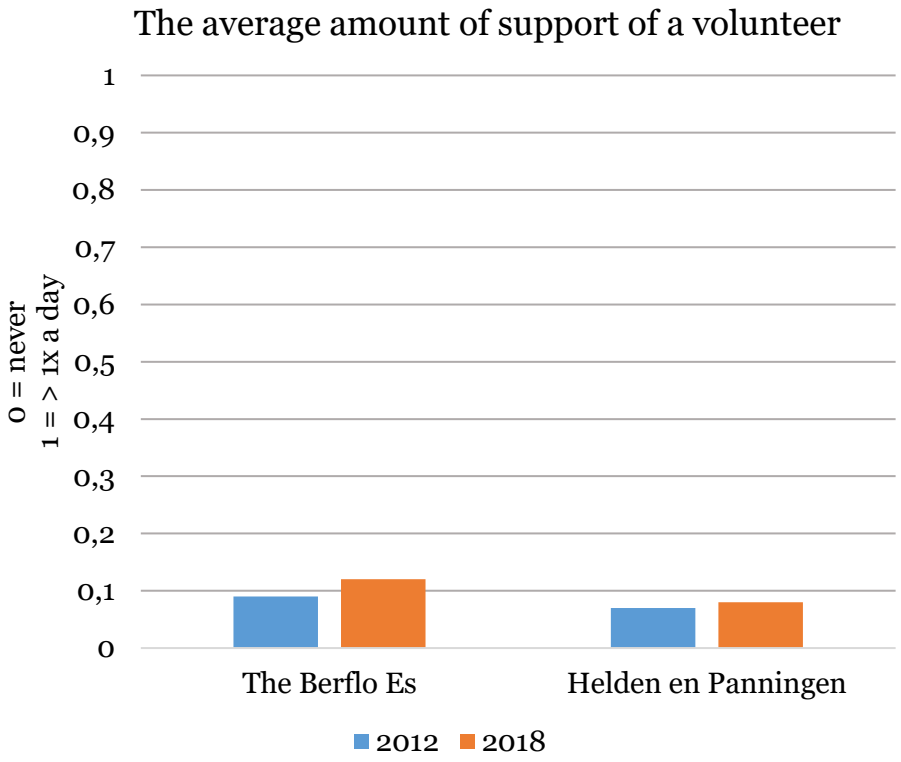

Figure 6: The average amount of support of a volunteer for both ISAs

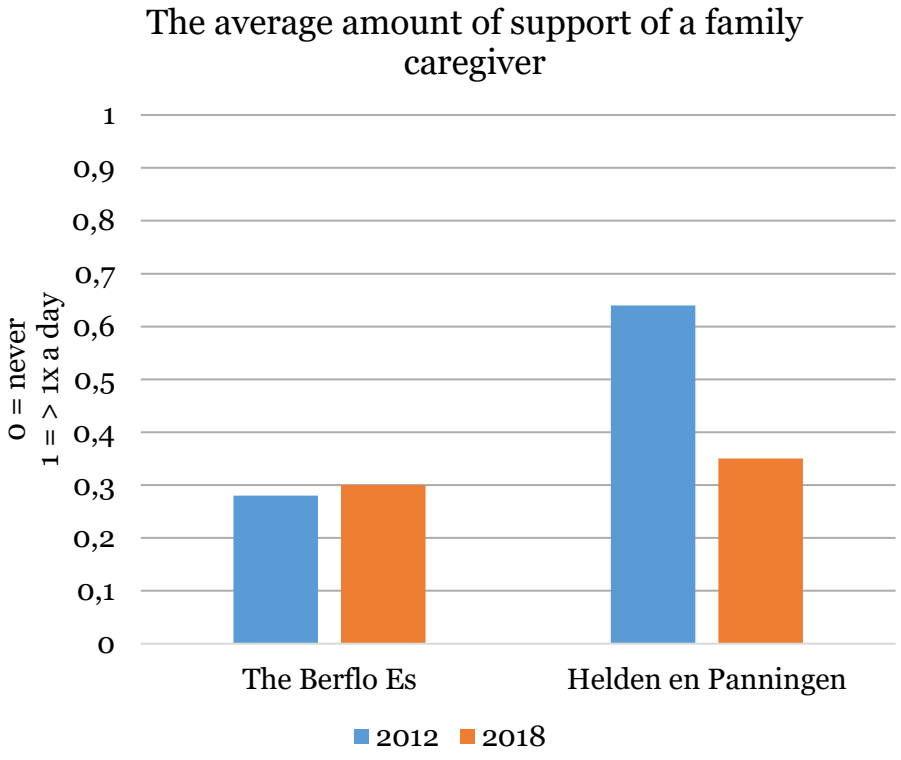

Figure 7: The average amount of support of a family caregiver

The findings, suggest that although close to zero, elderly in the Berflo Es on average make more use of volunteers and elderly in Helden en Panningen on average make more use of family caregivers. These effects oppose another. Since informal care includes both forms of care, the expectation is that no significant difference will be found between the use of informal care in the Berflo Es and Helden en Panningen.

The statistical analyses of 2012 however do not support this assumption. The amount of informal care that elderly receive did differ significantly for the two ISAs. Elderly in Helden en Panningen significantly received more informal care than elderly in the Berflo Es in 2012. Subsequently, in this data analyses a regression analysis was used. The following variables were included in this analysis: frailty, limitations, satisfaction with social contacts and having a partners or not. The data shows that the interaction effect of frailty is a significant predictor in the model. In Helden en Panningen there is a significant positive relation between frailty and informal care. The higher the frailty, the higher the informal care. For the Berflo Es this effect is not significant. Frailty does not have an effect on the use of informal care in the Berflo Es. When the variables age and physical fitness are included and the variable satisfaction with social contacts is excluded, the results show that age has a significant effect. The older people get, the more care they receive. This is true for both ISAs.

In contrast to the findings of 2012, no significant difference was found between the Berflo Es and Helden regarding the amount of informal care elderly receive in 2018. Age and physical fitness, however, do have a significant effect on informal care. The older people get the more informal care they receive. Simultaneously with physical fitness, the less fit elderly are, the more informal care they receive. Both effects are quite logical. People who are less fit, need more care to be able to live independently. In addition, the older people get, the more their physical abilities will decrease, the more care they will need. The interaction effects of both variables, however, are not significant, this means that the effect does not vary for the Berflo Es and Helden en Panningen.

Conclusion 5.3.1

This paragraph has tried to analyse if elderly people living independently in rural ISAs make more use of informal care than elderly people living independently in urban ISAs. In addition, this paragraph also wanted to find out if this has changed over the past five years. In 2012, this hypothesis was found to be true. Elderly people that lived independently in Helden en Panningen did receive significantly more informal care than elderly people living independently in the Berflo Es. However, this outcome has changed over the past five years. In 2018, elderly in Helden en Panningen no longer received significantly more informal care than elderly in the Berflo Es. The descriptive data even indicated that elderly in the Berflo Es received more informal care than elderly in Helden en Panningen.

However, what has not changed over the past five years, is that age has a significant effect on the use of informal care. The older people get, the more informal care they use. Another variable that significantly predicted the use of informal care in 2018 was the physical fitness of elderly. In 2012 this was not the case. Physical fitness has thus become more important when it comes to the use of informal care. A reason for this could be that local governments, as a consequence of the Social Support Act, try to postpone the use of more intensive care and try to substitute this care with lighter care or informal care and support. In 2012, elderly possibly made more use of more intensive or formal care when their physical fitness decreased. Due to the Social Support Act, this has likely been replaced by informal care.

5.3.2: Elderly people in urban Integrated Service Areas make more use of homecare than elderly people in rural Integrated Service Areas.

This hypothesis states that elderly people in urban ISAs make more use of homecare than elderly people in urban ISAs. The assumption is that the share of elderly that makes use of homecare is higher in the Berflo Es than it is in Helden en Panningen.

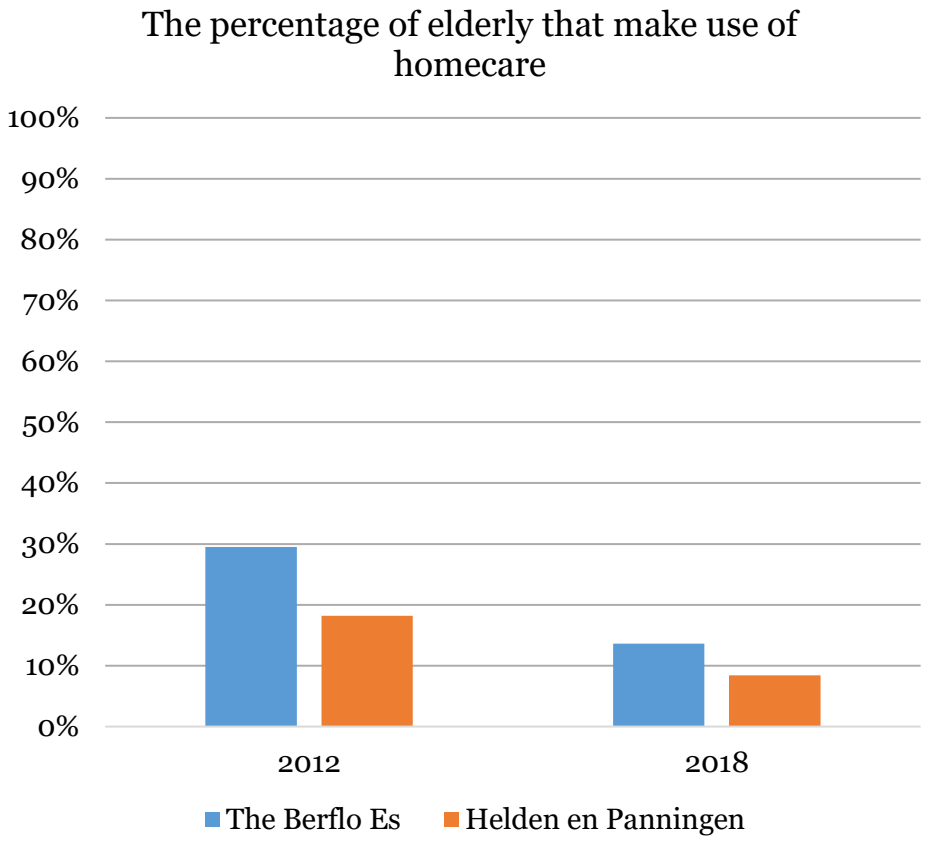

Figure 8: The percentage of elderly that make use of homecare

The descriptive data supports the assumption that elderly in the Berflo Es make more use of homecare than elderly in Helden en Panningen. This is true for 2012, as well as 2018. The difference in 2012, however, was not statistically significant. This is in contrast to difference in 2018. In 2018, the amount of homecare that elderly receive does differ significantly between the two ISAs. Elderly in the Berflo Es receive more homecare than elderly in Helden en Panningen.

This paragraph has also analysed if informal care is a significant predictor of the use of homecare. Therefore, a regression analysis has been used with informal care as the only independent variable. The regression results of both years show that the regression is significant. There exists a positive relation between homecare and informal care. The higher the amount of homecare, the higher the use of informal care. This has not changed over the past five years. However, in 2018, the effect was significantly stronger for the Berflo Es than it was for Helden en Panningen.

In addition, some other independent variables were added to the regression analysis: limitations, having a partner, adapted housing, frailty and gender. The main effects of gender and adapted housing have a significant effect. Females apparently use more homecare and elderly that live in an adapted house also use more homecare. The latter is contrary to the general findings of de Kam et al. (2012). They found that elderly that live in an adapted house

use less homecare. This may be due to the fact, that only a fraction of their dataset is used. This analysis used two service areas instead of the ten that were used in 2012. In addition, the two variables have a high correlation, which indicates reversed causality. This means that adapted housing not only influences the use of homecare, but that the relation also works the other way around. In 2018, however, this is no longer significant. This is also the case for gender. In 2018, the main effects of having a partner, frailty and informal care show a significant effect. In both locations, there is a positive relation between frailty and homecare, however this effect is significantly stronger for the Berflo Es than it is for Helden en Panningen. In the Berflo Es, there is a positive relation between having a partner and homecare. In Helden en Panningen this effect is negative. Thus, elderly in the Berflo Es with a partner make more use of homecare while in Helden en Panningen elderly that do not have a partner make more use of homecare.

Informal care is also significant. However in contrast with the previous finding, there is no significant difference found between the two ISAs. Other independent variables, explain the variance in homecare between locations significantly more than informal care.

Lastly, in Helden en Panningen there is a significant positive relation found between limitations and homecare. The more limitations elderly encounter, the more they make use of homecare. For the Berflo Es the coefficient was negative and the effect is also not significant. Limitations thus not have an effect on the use of homecare in the Berflo Es.

Conclusion 5.3.2

In 2012, no significant difference was found between the use of homecare in the two ISAs. However, in 2018, this significant difference was present. Elderly in the Berflo Es receive more homecare than elderly in Helden en Panningen. This thesis also found that throughout these five years, both areas showed a positive relation between the amount of homecare and the amount of informal care. However, this effect is significantly stronger for the Berflo Es than it is for Helden en Panningen. It is plausible that the difference between the Berflo Es and Helden en Panningen can explained by the infrastructure of supporting and encouraging informal care. There are a lot of advice and information services in the Berflo Es, such as a service point and a local care team. It is therefore likely that the elderly in the Berflo Es are better known with the possibilities of combining informal and formal care. This might mean that elderly in Helden en Panningen miss opportunities to combine the use of informal care and home care. If the explanation does indeed lie in the provision of better infrastructure, the ISAs show that this this can be developed in both rural as urban ISAs. Good communication between the elderly, professionals, informal caregivers and volunteers is a precondition for optimizing the combination of informal care and homecare.

Findings also suggest that elderly who are more frail use more homecare. This outcome was found in 2018, but not in 2012. This is therefore an effect that has developed itself over the past five years. It could be that the decreased possibilities for intramural living and introduction of the new Social Support Act have led elderly to search for alternative ways to cope with their physical limitations.

5.3.3: Elderly people in urban Integrated Service Areas make more use of care professionals than elderly people in rural Integrated Service Areas.

This hypothesis states that elderly people in urban ISAs make more use of care professionals than elderly people in rural ISAs. Each type of care professional will be checked on differences between the two ISAs.

General Practitioner

This thesis assumes that elderly in the Berflo Es make more use of the care from general practitioners than elderly in Helden en Panningen. Some descriptive data on the use of care from general practitioners is shown in figure 9 and 10.

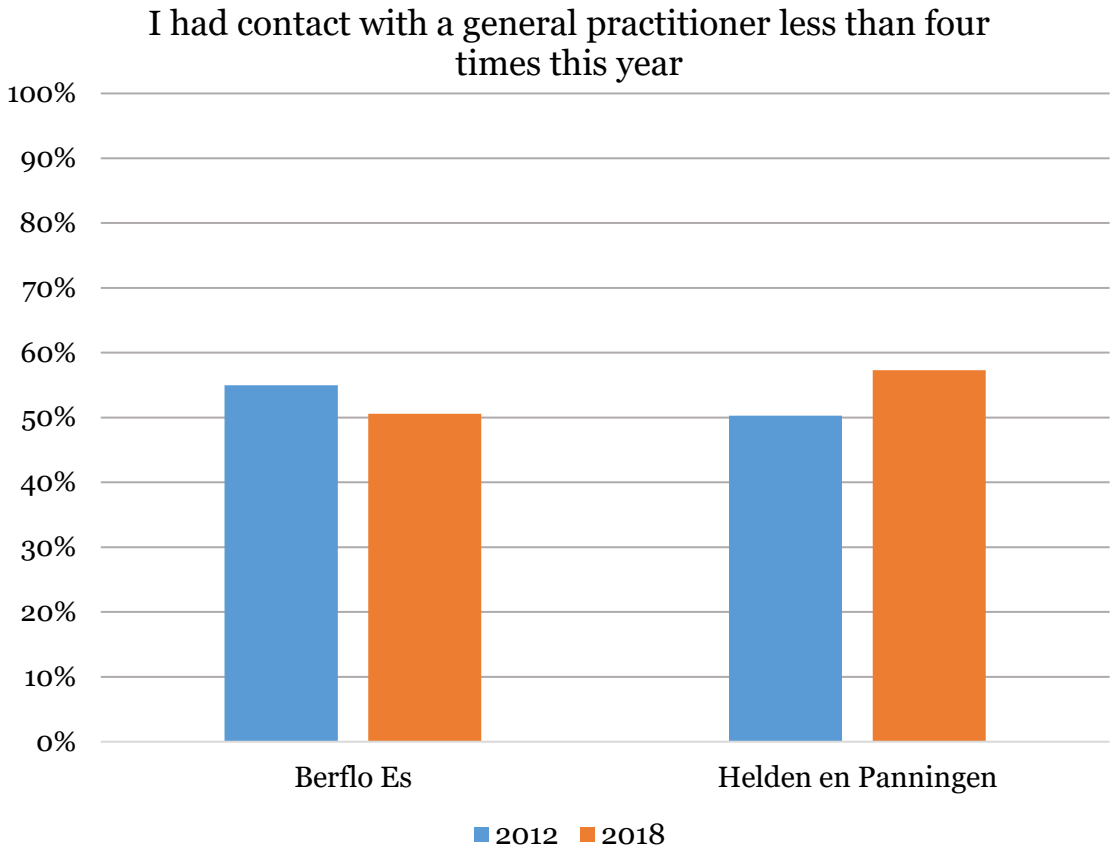

Figure 9: Percentages of elderly that had contact with a general practitioner less than four times this year

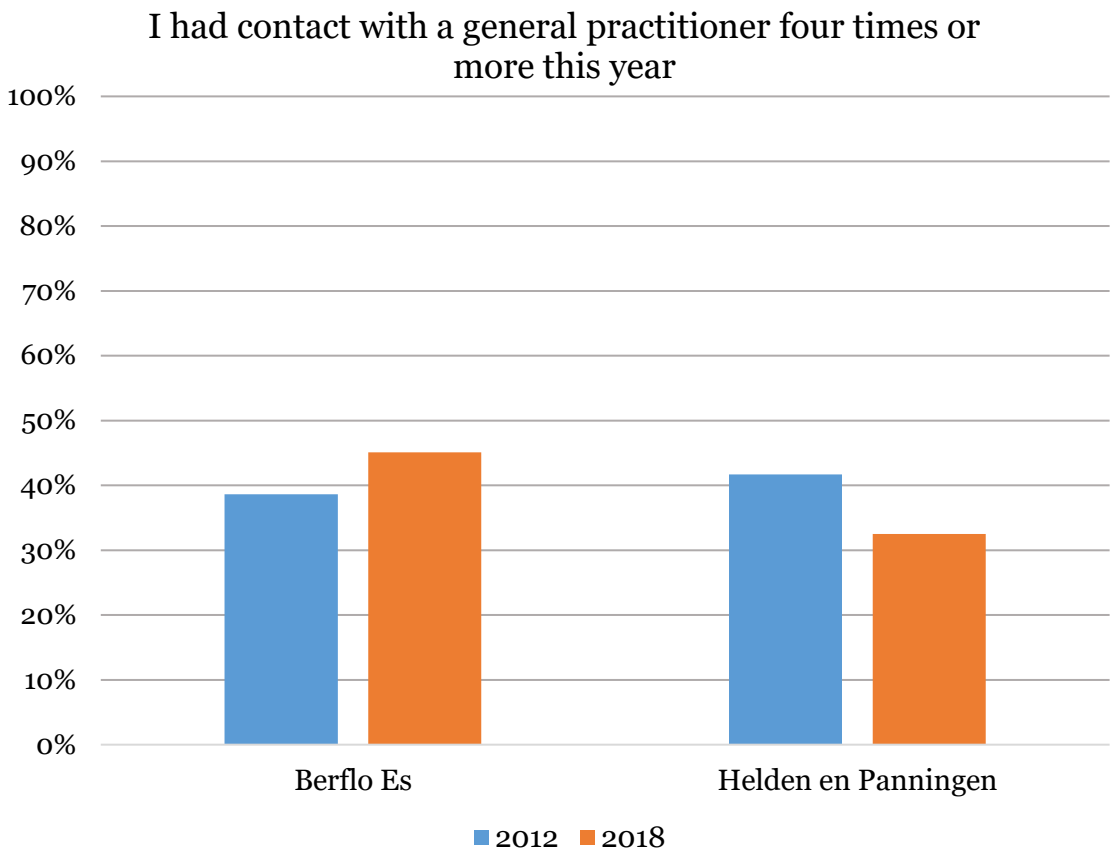

Figure 10: Percentages of elderly that had contact with a general practitioner four times or more this year

The statistical analysis did not find a significant difference between the amount of care that elderly in the Berflo Es receive from general practitioners and the amount of care that elderly in Helden en Panningen. This is the case for the data of 2012, as it is the case for the data of 2018.

Consequently a regression analysis was used to see if the independent variables have an effect on the use of general practitioners. In 2012, the main effect of having a partner was significant. Elderly who had a partner, more often had contact with a general practitioner. However, this effect is no longer significant in 2018. In 2018, the main effect of frailty is significant. The higher the frailty, the more contact elderly have with general practitioners. This was not the case in 2012. In 2012 the p-value was almost <0,05 (p = 0,052). Thus although the effect of frailty on the amount of contact with a general practitioner was not significant in 2012, a clear trend can be perceived in which frailty has an effect on the amount of contact elderly have with a general practitioner. This is true for both areas.

Medical specialists

This research assumes that elderly in the Berflo Es receive more care from medical specialists, than elderly in Helden en Panningen.

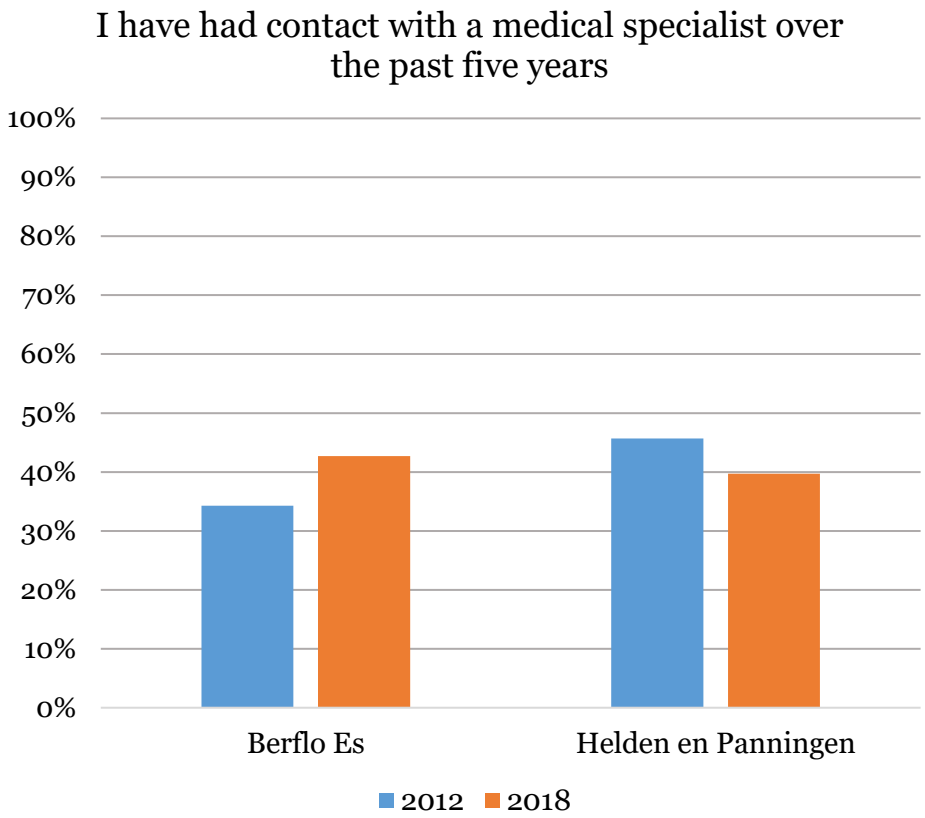

Figure 11: Percentages of elderly that had contact with a medical specialists over the past five years

In 2012, the Berflo Es and Helden en Panningen differed significantly from each other regarding the amount of elderly that had contact with a medical specialist. There were significantly more elderly in Helden en Panningen that had contact with a medical specialist than there were in the Berflo Es. This corresponds with the descriptive data in figure 11. In 2018, the amount of care elderly receive from medical specialists does not differ significantly between the two ISAs.

Consequently, a regression analysis was used to find out if these outcomes are a consequence of the influence of a significant predictor. In 2012 as well as 2018, limitations had a significant effect on the use of care from a medical specialist. If limitations increase than the amount of care that elderly receive from a medical specialist, also increases.

In 2012, the interaction effect of frailty was also significant. In Helden en Panningen frailty had a significant effect on the use of medical specialist. The more frail people were, the more they used a medical specialist. In the Berflo Es, a significant relation was not found between these two variables.

Thus, in 2012 there were significantly more elderly in Helden en Panningen that made use of the care of a medical specialist then there were in the Berflo Es. In 2018 this effect has vanished and there no longer exist a significant difference between the two. In 2012 there was a significant relation between limitations and use of medical specialists for both areas. This relation was more positive for the Berflo Es than for Helden en Panningen. In 2018, this relation is still significant but it no longer differs so much for the two areas. In both areas, the use of medical specialists depends on the limitations of an elderly person. In addition, Frailty used to have a significant effect in 2012 in Helden en Panningen and in 2018 no longer does. The hypothesis will therefore be rejected. Elderly in the Berflo Es do not receive more care from medical specialists, than elderly in Helden en Panningen. This has not changed over the past five years.

Hospitalizations

This research assumes that the amount of hospitalizations is higher in the Berflo Es than it is in Helden en Panningen.

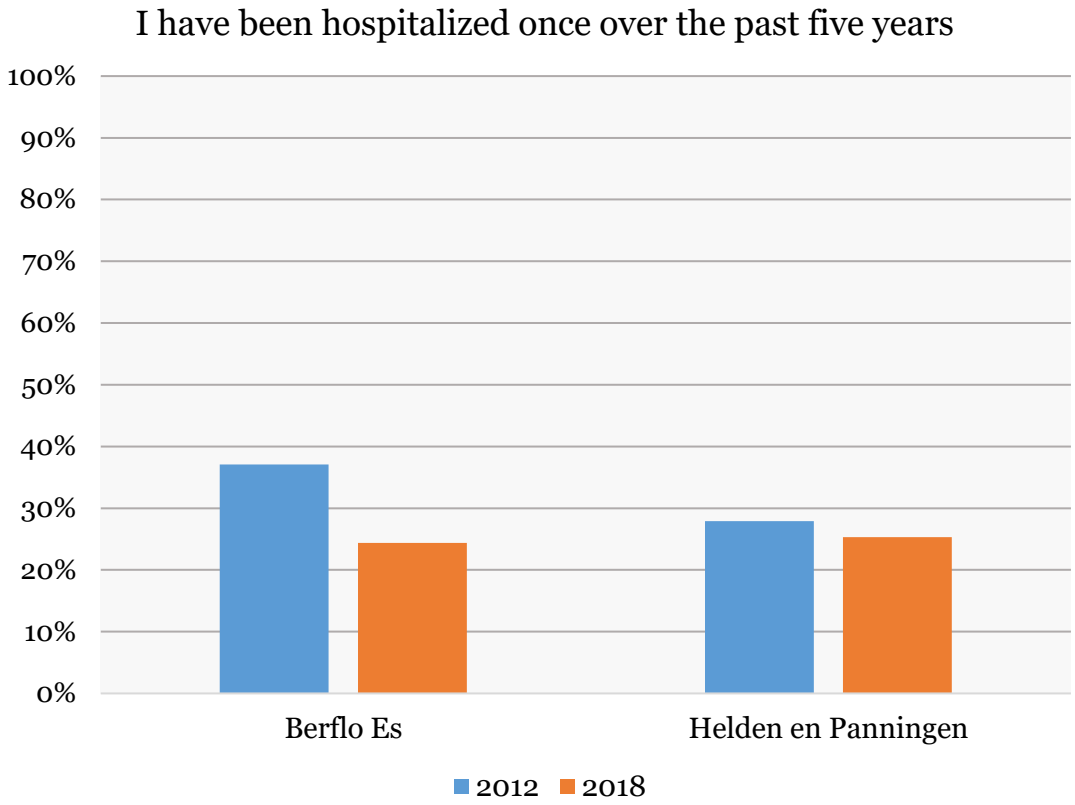

Figure 12: Percentages of elderly that have been hospitalized once over the past five years

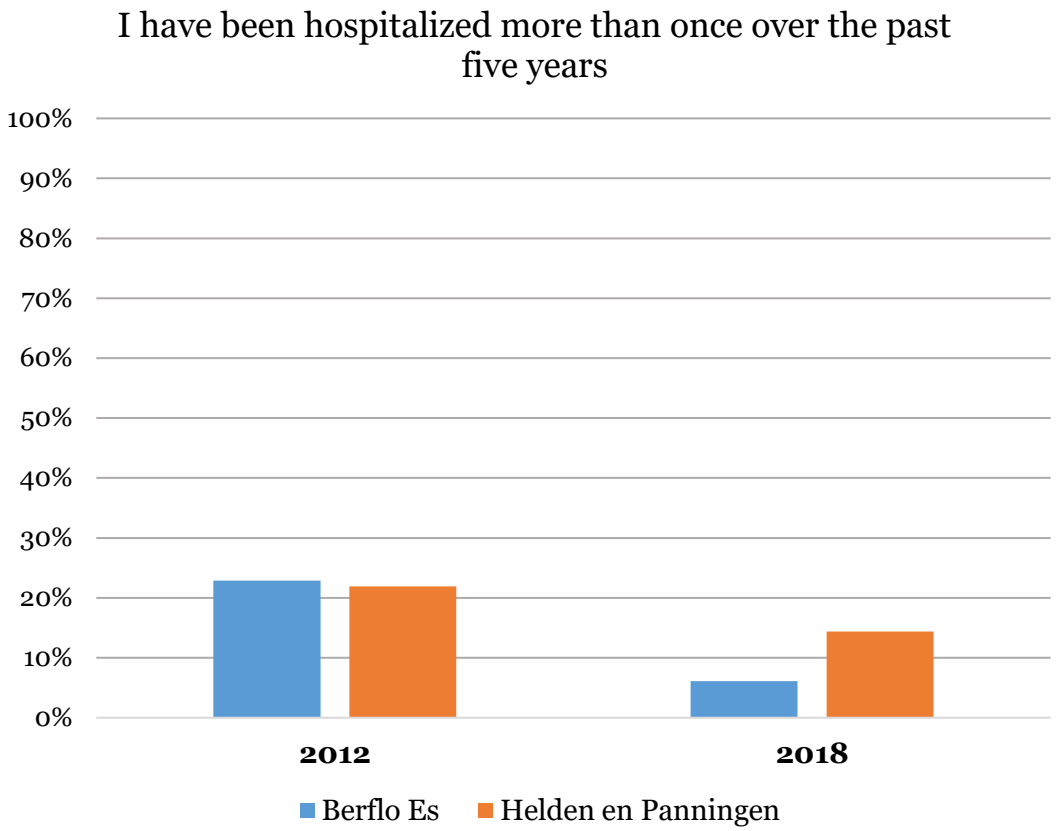

Figure 13: Percentages of elderly that have been hospitalized more than once the past five years

Figure 13 shows that the share of elderly that has been hospitalized more than once over the past five years has decreased slightly and that the difference between the two areas has increased. This might have something to do with the development of Pantaleon in Helden en Panningen. Possibly elderly now visit the hospital sooner than they did before.

This finding is not confirmed by the statistical analysis. The analysis indicates that the amount of hospitalizations of elderly in the Berflo Es and the amount of hospitalizations of elderly in Helden en Panningen, does not differ significantly from each other. This was true for 2012, as well as for 2018. In addition, a regression analysis was run to control for the independent variables. In 2012, there were no effects significant. In 2018, however, the findings show that the main effect of frailty is significant. If frailty increases than the amount of hospitalizations will also increase. This is true for both ISAs. The hypothesis, therefore, has to be rejected. Elderly living in rural ISAs are not hospitalized more often than elderly living in urban ISAs.

Psychosocial care

This research assumes that there are more elderly in the Berflo Es that receive psychosocial care than there are in Helden en Panningen. Figure 14 shows that the difference between the two ISAs is close to zero and that his has not changed over the past five years.

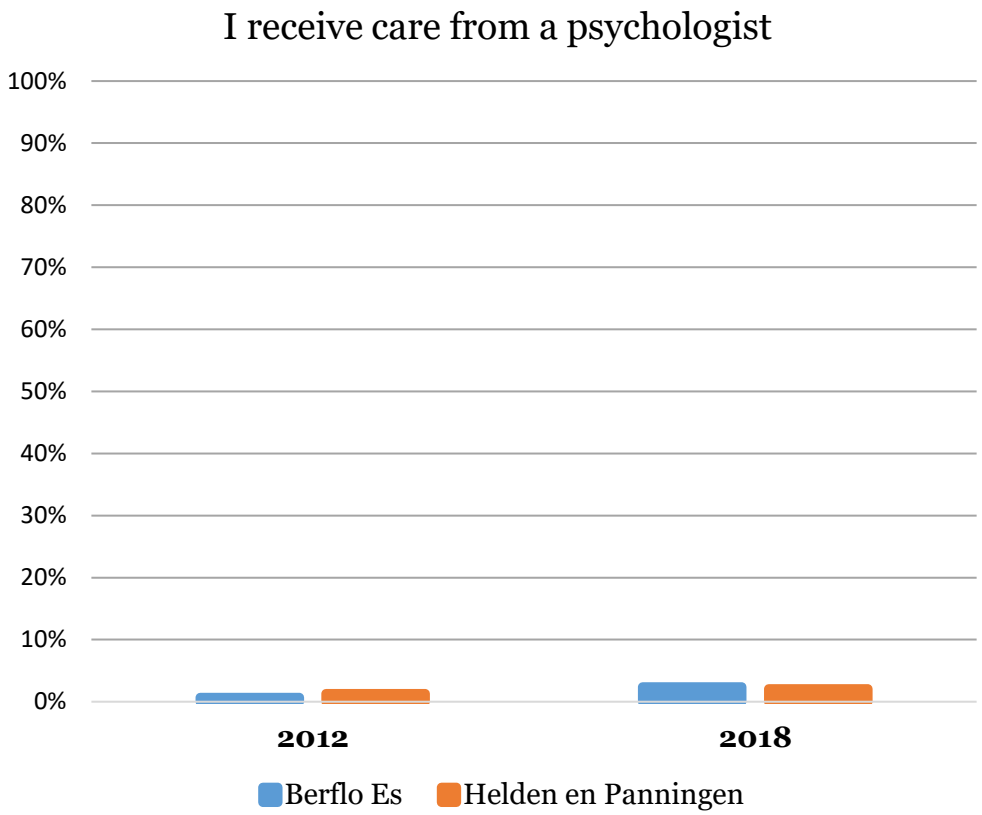

Figure 14: Percentage of elderly that receive care from a psychologist in 2012 and 2018

This corresponds with the outcome of the Mann-Whitney test since the amount of elderly that receive psychological care does not differ significantly between the two ISAs and this has not changed over the past five years.

Consequently, a regression analysis was run. In 2012, the main effect of frailty was significant. If frailty increases than the amount of care elderly receive from a psychologist will also increase. This main effect is no longer significant in 2018. The hypothesis that there are more elderly in urban ISAs that receive psychological care than there are in urban ISAs has to be rejected. Moreover, this outcome has not changed over the past five years.

Paramedical care

This research assumes that the amount of elderly that receive paramedical care is higher in the Berflo Es than it is in Helden en Panningen. This assumption is contradicted by the descriptive data. Figure 15 shows that there are more elderly in Helden en Panningen that receive care from a physiotherapist than there are in the Berflo Es. However, it also suggests that this difference has diminished.

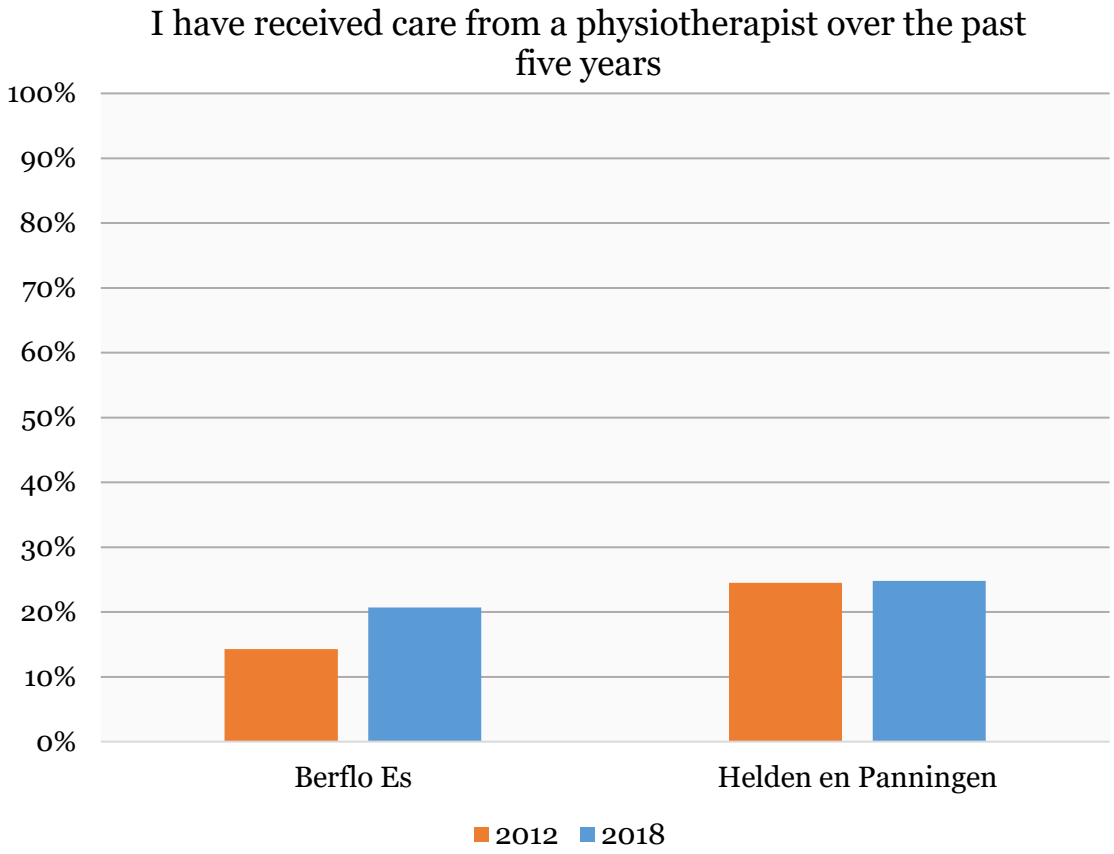

Figure 15: Percentage of elderly that have received care from a physiotherapist over the past five years

This corresponds with the statistical outcomes. In 2012, the amount of paramedical care that elderly in the Berflo Es received and the amount of paramedical care elderly in Helden en Panningen received did differ significantly from each other. There were significantly more elderly in Helden en Panningen that made use of paramedical care than there were in the Berflo Es. However, in 2018 this difference was no longer significant.

Just to be sure, a regression analysis was run to control for the independent variables. In 2012, the main effect of frailty was significant. If frailty increases than the amount of paramedical care will also increase. This main effect, however, is no longer significant in 2018. In 2018, the main effect of limitations was significant and this was not the case in 2012. In both years, the interaction effects were not significant. The hypothesis, therefore, has to be rejected. The amount of elderly that receive paramedical care is not higher in the Berflo Es than it is in Helden en Panningen. This has not changed over the past five years.

Conclusion 5.3.3

No striking differences were observed between urban and rural Integrated Service Areas and the use of professional care services. Yet, the use of professional care services is influenced by physical limitations, frailty and having a partner. The latter was also found in the general outcome of 2012. De Kam et al. (2012) assumed this had something to do with the more frequent occurrence of care-avoiding behaviour among single elderly.

5.3.4: Elderly people in urban Integrated Service Areas are more satisfied with care than elderly people in rural Integrated Service Areas.

This hypothesis states that elderly people in urban ISAs are more satisfied with the care available in the areas than elderly people in rural ISAs. Figures 16, 17 and 18 display the differences between the two ISAs for a number of sub-variables that are included in the model.

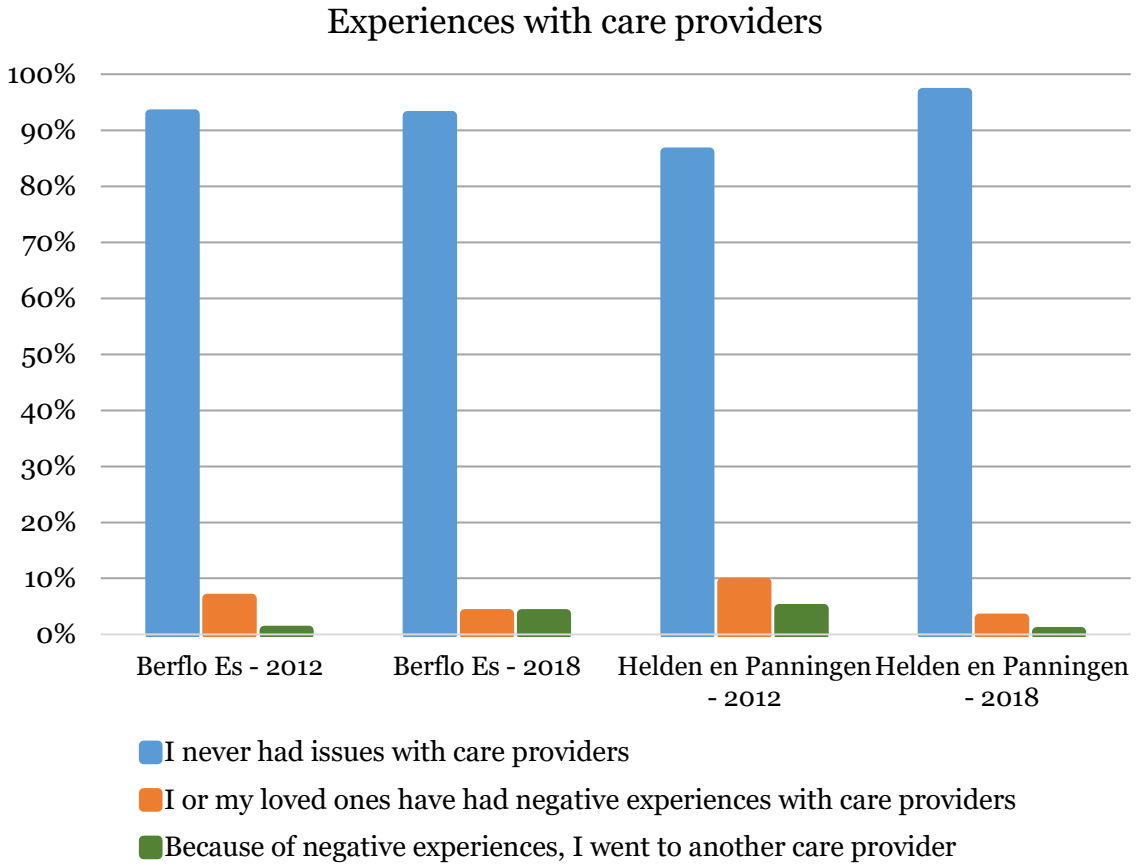

Figure 16: Experiences with care providers in 2012 and 2018

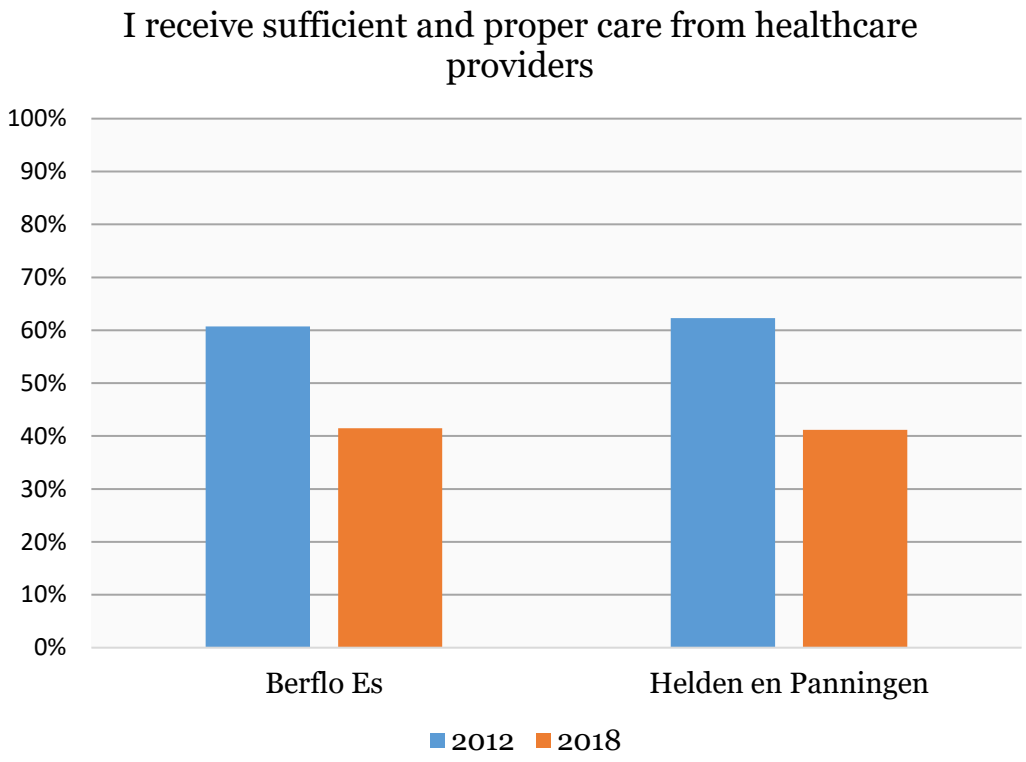

Figure 17: The share of elderly that feels like they receive sufficient and proper care from healthcare providers

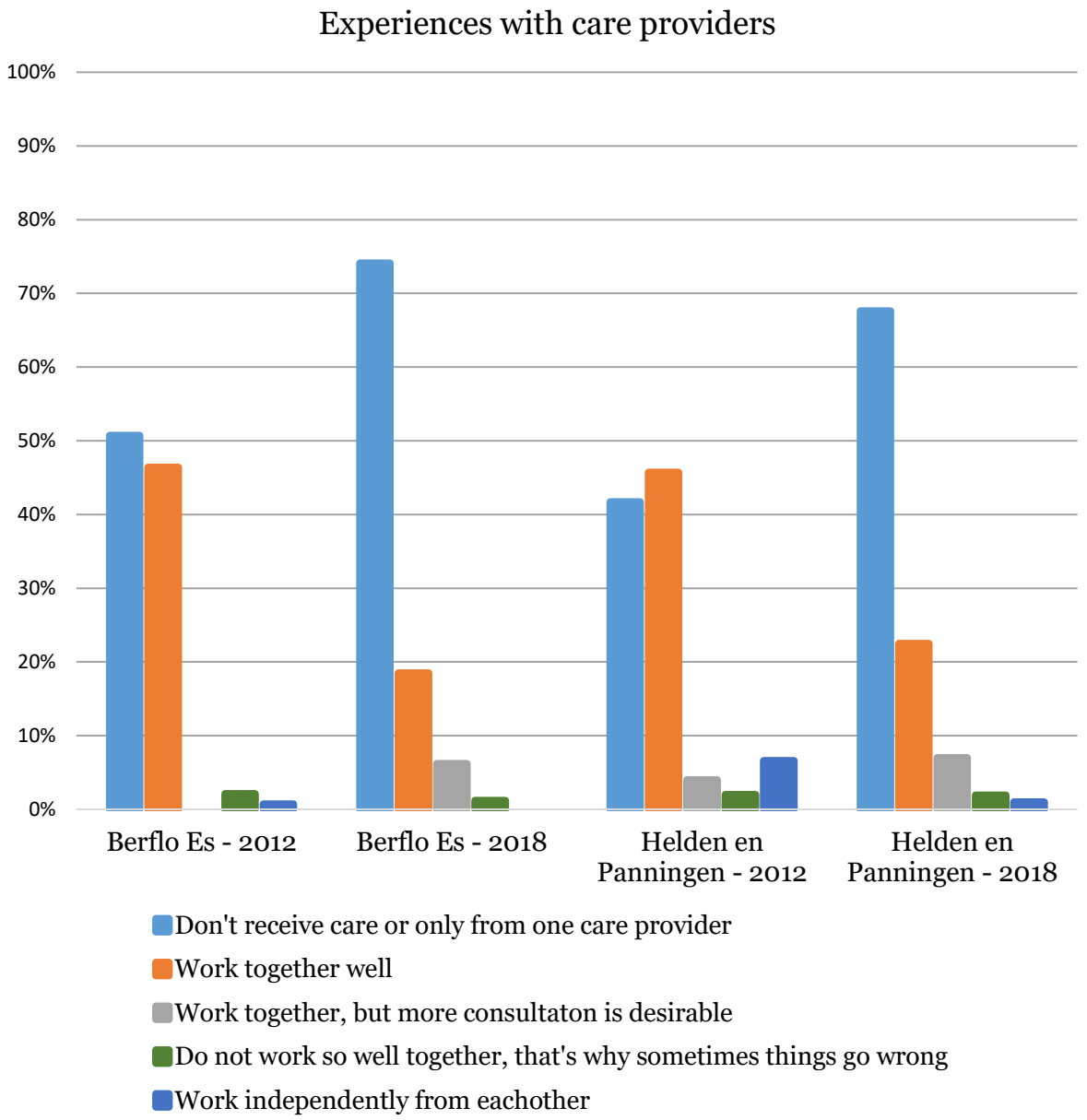

Figure 18: Experiences with care providers: collaboration and cooperation between care providers

The figures only show some slight differences in the answers between the two ISAs. Elderly in Helden en Panningen may be slightly more positive than elderly in the Berflo Es. In 2018, the share of elderly that indicated they never had issues with care providers (figure 16) was slightly higher for Helden en Panningen than for elderly in the Berflo Es. Moreover, the share of elderly that indicated that the care providers in the neighbourhood work together well was also slightly higher in Helden en Panningen than in the Berflo Es (figure 18). However, although there are some difference found, the figures do suggest that elderly in the Berflo Es and elderly in Helden en Panningen did not answer the questions very differently.

When comparing the two years, there are however some bigger differences found. For example, figure 17 shows that over the past five years the amount of elderly that feel like they receive sufficient and proper care from healthcare providers has decreased. In addition, figure 18 shows that the amount of elderly that think the care providers work together well has also decreased over the past five years. This is partly because there are more elderly in 2018 that do not receive care or only receive care from one provider and partly because elderly feel like more consultation is desirable.

The statistical outcomes correspond with the descriptive data. There is no statistical difference found between Helden en Panningen and the Berflo Es regarding the satisfaction with care. Moreover, this has not changed over the past five years. The satisfaction with care of elderly in the Berflo Es and the satisfaction with care of elderly in Helden en Panningen, does not differ significantly from each other.

Consequently, a regression analysis was run to see if there are any independent variables who act as a significant predictor. In 2012, it appears that experience with care is a significant predictor. This is also true for 2018. In both locations, there is a significantly positive relation between experiences with care and satisfaction with care. Elderly who are positive about their experiences with care (providers), are also more satisfied with care in general. In Helden en Panningen this effect is significantly more positive than in the Berflo Es.

Frailty was also a significant predictor in 2018. In both locations, there is a negative relation between frailty and satisfaction with care, however this effect is significantly stronger for the Berflo Es than it is for Helden en Panningen. The higher the frailty, the less satisfied people are with care. Moreover, in 2018 having a partner was also significant. In Helden en Panningen, there is a positive relation between having a partner and satisfaction with care. Elderly with a partner are more satisfied with care. In the Berflo Es, however, elderly without a partner are more satisfied with care.

Place is also significant. The mean satisfaction with care in Helden en Panningen, starts at a lower level than the mean amount of satisfaction with care of elderly in the Berflo Es. Elderly in the Berflo Es are according to this analysis more satisfied with care than elderly in Helden en Panningen.

Conclusion 5.3.4

The results of the data analyses in this paragraph show some different outcomes. When using a Mann-Whitney test no statistical difference are found between Helden en Panningen and the Berflo Es regarding the satisfaction with care in 2012 and 2018. However the regression results in 2018 do show a significant difference in place with regards to the satisfaction with care. The findings of the regression analysis in 2018 suggest that elderly in the Berflo Es are more satisfied with care than elderly in Helden en Panningen. A reason for this could be that Hengelo has the welfare organization Wijkracht that coordinates many functions. Hengelo also has (several) district nurses that are active in the Berflo Es. In Helden-Panningen, there is only cooperation during the night shift, but there is a network with parties in primary care.

In addition the analysis also found that there is a significantly positive relation between experiences with care and satisfaction with care. Elderly who are positive about their experiences with care (providers), are also more satisfied with care in general. However, in Helden en Panningen this effect is significantly more positive than in the Berflo Es.

5.4 The use of local services and facilities

The research has also asked about the familiarity and the use of specific services and facilities. Due to the versatility and the local aspect of the facilities and services, these cannot be compared directly with each other. There is no general standard for the extent to which facilities and services are used by elderly. Nevertheless, some assumptions can be made based on the responses received. Day activities, transport facilities as well as meal provisions are not used often by the elderly in the ISAs. In addition, these types are also relatively unknown. On the other hand, shopping areas as well as neighbourhood activities are used more often and are also more known among the residents. This has not changed over the past five years. It is not unusual that there exists a variation between the uses of facilities. For example, it is not

desirable that all elderly people in an ISA make us of meal services. Moreover, shopping areas are intended to target a larger public. An overview of the data on the familiarity and the use of various local facilities and services can be found in appendix 9.

The findings on the use of local services also suggest that familiarity plays an important role. For example, neighbourhood centre Berflohoes in the Berflo Es is now used more often by elderly than it was in 2012. This is also true for ''Dorpsdagvoorziening de Koeberg'' in Helden en Panningen. This suggest that familiar accommodations are used more often than new ones. However, the use of community centre Kepèl contradicts this finding. Community centre Kepèl is used relatively often by elderly in Helden en Panningen. An explanation for this is that welfare organization Vorkmeer together with local residents discussed how Kepèl could become a viable community centre. As a consequence of these discussions the KBO activities were moved to Kepèl and are now used more often than they were in 2012. This finding underlies the importance of including local residents in the development and/or organization of local facilities and services.

6. Conclusion and discussion

This research has tried to answer if and how place characteristics have influenced the Integrated Service Areas of Hengelo and Peel en Maas and the quality of life of elderly living in these areas over the past five years. It has therefore used a quantitative analysis to investigate the effect of place characteristics on the Integrated Service Areas. In addition, it has tried to incorporate a geographical perspective, highlighting the idea that Integrated Service Areas are areas with distinct local geographies that may have a different effect on its ageing community. A division has therefore been made between rural and urban Integrated Service Areas.

This section shall first discuss the main findings of each sub question separately. After this, the so-called SSKK model will be used to summarize the results of this research. The SSKK model distinguishes between factors that promote (facilitate) and hinder (inhibit) the interaction between individuals and the environment. SSKK stand for support, stress, strength and vulnerability (De Jonghe et al., 1997). The SSKK model will help us understand which place characteristic have had a positive effect on the ISAs over the past five years and which characteristics had a negative effect.

6.1 The effect of place characteristics with regards to living longer independently

The foremost effect that initiators expect from Integrated Service Areas is that people are able to live independently longer. Since living independently longer cannot directly be measured, this research has looked at the satisfaction with the living situation. The findings of this research suggest that the satisfaction with the living situation does not differ between the Berflo Es and Helden Panningen. However, what was found in this research is that the factors that influence the satisfaction with the living situation do differ between the Berflo Es and Helden en Panningen

For example, in the Berflo Es there is a significant positive relation between traffic safety and satisfaction with the living situation. The more elderly feel safe within traffic, the more satisfied elderly are with the living situation. In Helden en Panningen, this effect is close to zero. It can therefore be assumed that in Helden en Panningen traffic safety barely has an effect on the satisfaction with the living situation for elderly. A likely explanation for this is that rural areas often score higher on indicators such as traffic safety. Elderly in rural areas could therefore see traffic safety as obvious and take it for granted. Consequently, traffic safety might not really influence the satisfaction with the living situation.

Another factor that has a different effect on the satisfaction with the living situation in the Berflo Es and Helden en Panningen is adjustments in the home. There exists a positive relation between adjustments in the home and the satisfaction with the living situation. However, this is only true for elderly in Helden en Panningen and not for elderly in the Berflo Es. This means that elderly in Helden en Panningen who have adjusted their homes are more satisfied with the living situation than elderly who have not. A reason for this difference might be that a lot of elderly in Helden en Panningen still live in a detached home. In the Berflo Es this amount is a lot smaller. In addition, more than half of the elderly in the Berflo Es live in an apartment. It could be that elderly in Helden en Panningen are in greater need of adjustments in the home and once elderly do adjust their home, their living situation improves and consequently the satisfaction with the living situation will increase.

Another explanation could be that elderly in Helden en Panningen lack awareness about services that are available to help them stay in their original homes. Pijpers et al. (2018) found that a large share of rural elderly do not live in adapted homes because they are often unaware of service that can help organize and fund adaptations to original homes. As a consequence

elderly anticipate relocation more often than urban residents do even though they might not even want to move. This could also be an explanation to why descriptive data shows that elderly people in Helden en Panningen have less health issues than elderly people in the Berflo Es. Elderly who encounter health issues in Helden en Panningen might move away and/or move to institutions quicker than elderly in the Berflo Es because their houses are not suitable enough to continue to live independently. In addition, although intramural institutions have closed in Helden en Panningen, there are still more intramural alternatives in Helden en Panningen than in the Berflo Es. Elderly who encounter health issues in Helden en Panningen might move quicker to one of these institutions than their counterparts in the Berflo Es. Adjustments to one's house can therefore be more significant to elderly in Helden en Panningen than it is for the Berflo Es.

This thesis therefore concludes that elderly in urban Integrated Service Areas do not live independently longer than elderly in rural Integrated Service Areas. In addition, no differences have been found between the ISAs regarding the amount of frail elderly that live independently. This corresponds with the findings of Pijpers et al. (2018) whom also did not find any big differences in physical problems, chronic illnesses, or frailty between rural and urban ISAs. However, the results of this research do not correspond with the results from RIGO (2018). RIGO analysed the relative difference between the Integrated Service Areas and their control areas in the share of elderly who continue to live independently in the neighbourhood. Their findings suggest that in the Berflo Es more elderly continue to live independently, in contrast to Helden en Panningen. RIGO (2018) also found that there are more frail elderly living independently in the Berflo Es than there are in Helden en Panningen in comparison to their control areas.

This research however does find that there is an increased preference for elderly housing in the Berflo Es as well as in Helden en Panningen. Once again, this might be as a consequence of the decrease in intramural housing. There is a greater chance that elderly have to move to another neighbourhood if they want to move to a care home. This has possibly increased the preference for elderly homes. Since, the preference for elderly housing has increased in both ISAs, a final policy recommendation would be to increase the supply of elderly housing.

In conclusion, satisfaction with the living situation is not dependent on the characteristics of the elderly or on strong objective indicators, such as accessibility of facilities. Although these indicators are an important consideration when designing ISAs, they appear not to have a significant impact on satisfaction with the living situation. What has been found is that the satisfaction with the living situation in the Berflo Es and Helden en Panningen are not influenced by the same factors. The findings suggest that the factors that influence the living situation in both areas are also the indicators on which they score poorly. Helden en Panningen for example still has a lot of houses that have not been adapted and are thus not suitable for ageing in place. Moreover, elderly in the Berflo Es do not feel completely safe within traffic. It is therefore key to improve the traffic situation in the Berflo Es and the quality of housing for elderly in Helden en Panningen. Fortunately, both traffic safety and adjustments to one's home can be influenced to some extent by interventions. Traffic safety, for example, can be influenced by adjustments in the living environment such as reducing speed limits and adjusting traffic lights to give elderly more time to cross the street. Regarding adjustments to one's home, it is key that elderly are better informed about the information and help available regarding adaptations to one's home.

6.2 The effects of place characteristics with regards to health, formal and informal care

Throughout this thesis, it has become clear that living longer independently is inevitable. Due to the decreased possibilities for intramural living and the introduction of the Social Support Act, it is no longer the question if elderly will live independently longer but how they will live independently longer. This research has therefore opted to look at how place characteristics have influenced the quality of life of elderly in the ISAs regarding their health and the use of formal and informal care.

The findings suggest that although frailty is important within the research on the effect of ISAs, age has a significant effect on the use of informal care. The older people get the more informal care they use. This has been a constant factor over the past five years. However, what has changed over the past five years is that physical fitness has become more important when it comes to the use of informal care. This might be a consequence of the introduction of the new Social Support Act. Local governments, as a consequence of the Social Support Act, try to postpone the use of (heavier) care and try to substitute this care with lighter care or informal care and support. In 2012, elderly possible made more use of heavier or formal care when their physical fitness decreased. Due to the Social Support Act, elderly may now search for alternative ways to cope with their physical limitations. This is confirmed by the finding that elderly who are frailer make more use of homecare. This outcome was found in 2018, but not in 2012. This is effect has thus developed itself over the past five years.

However, in contrast to 2012, a significant difference was found between the ISAs regarding the general use of homecare. The findings suggest that elderly in the Berflo Es receive more homecare than elderly in Helden en Panningen. This thesis also found that throughout these five years, both areas showed a positive relation between the amount of homecare and the amount of informal care. The higher the use of informal care, the higher the use of home care. The two forms of care are thus complementary to one another. However, this effect is significantly stronger for the Berflo Es than it is for Helden en Panningen. This outcome is the same as in 2012. Similarly, de Kam et al (2012) found that the use of informal care predicts a higher use of homecare. They also found that the strength of this relationship differs between the ISAs. It is plausible that the difference between the Berflo Es and Helden en Panningen can be explained by the infrastructure of supporting and encouraging informal care. There are a lot of advice and information services active in the Berflo Es, such as a service point and a local care team. It is therefore likely that the elderly in the Berflo Es are better known with the possibilities of combining informal and formal care within the neighbourhood. This might mean that elderly in Helden en Panningen miss opportunities to combine the use of informal care and home care. If the explanation does indeed lie in the provision of better infrastructure, the ISAs show that this can be developed in both rural and urban ISAs. Good communication between the elderly, professionals, informal caregivers and volunteers is a precondition for optimizing the combination of informal care and homecare.

It is thus key to inform elderly better on the care available. However, this unintentionally may lead to a situation where elderly request care faster than they would normally do. In Helden en Panningen a positive relation was found between limitations and homecare. The more limitations elderly encounter, the more they make use of homecare. Hence, it might be that elderly in the Helden en Panningen only request homecare when they need it. In the Berflo Es limitations of elderly do not have an effect on the use of homecare. Thus, although it is positive to inform elderly about care possibilities within the neighbourhood, one can assume that elderly in Helden en Panningen who are in need of care also find this care within the

neighbourhood regardless of having an active care team within the neighbourhood. No striking differences were observed between urban and rural Integrated Service Areas and the use of professional care services. Yet, the use of professional care services is influenced by physical limitations, frailty and having a partner. The latter was also found in the general outcome of 2012. De Kam et al. (2012) assumed this had something to do with the more frequent occurrence of care-avoiding behaviour among single elderly.

Lastly, some mixed signals were found with regards to the satisfaction with care. Some of the findings indicated that the satisfaction with care differed in the two ISAs. The findings suggest that elderly in the Berflo Es are more satisfied with care than elderly in Helden en Panningen. A reason for this could be that Hengelo has the welfare organization Wijkracht that offers a good starting point for the coordination of many functions and the exchange of information between professionals. Hengelo also has (several) district nurses that are active in the Berflo Es. In Helden-Panningen, there is only cooperation during the night shift, but there is a network with parties in primary care.

6.3 Discussion of the results with the help of the SSKK model

The SSKK model will now be used to order and explain the outcomes. The SSKK model is based on two dimensions. The first concerns the direction of the effect; factors can have a facilitating or inhibiting effect. The second dimension is about the object to which the factors relate. There are thus both environmental and individual factors that determine the functioning of an individual. This research has discussed both factors, but has also indicated that it would focus on the environmental factors. The individual factors were concluded in the analysis but only to use them to say something about the chance that a certain environmental character has an effect. The variables included in this model are used to present how a certain stress or support factor could be more effective in the ISAs.

Table 11: The outcomes placed in the SSKK model

	Facilitating	Inhibiting
Environment	**Support** Adjustments in the home Integrated care system	**Stress** Unsafe traffic situations
Individual	**Strength** Awareness of advice and information services	**Vulnerability** Frailty Limitations

In the SSKK model home modifications is a support factor. Home modifications are a proactive approach to increase the level of safety in the home, and possibly add convenience and comfort for seniors. Although this outcome contradicts the finding by de Kam et al. (2012), many previous studies proved that home modifications had a positive effect on the quality of life of elderly and being able to function in one's home (Gitlin et al., 1999; Hutchings et al., 2008; Hwang et al., 2011). This research will therefore conclude that home modifications facilitate living longer independently.

Creating awareness of advice and information services can strengthen this effect. Obtaining and processing information, becomes harder in later stages of life, with elderly people often finding it difficult to navigate through housing, care and financial issues (Erickson et al. 2006). Research found that advisory services have a positive impact on the housing outcomes for older people (Burgess & Morrison, 2016). Awareness of advice and information services can thus

strengthen the supporting role of home modifications. It is therefore key to familiarize elderly with advisory services.

In addition, elderly in the Berflo Es indicated that traffic safety is important when it comes to the satisfaction with the living situation. This factor was categorized as an inhibiting factor since it only influenced the satisfaction with the living situation of urban elderly. It did not influence the satisfaction with the living situation of rural elderly. A reason for this is that rural areas often score better on traffic safety than urban elderly. It therefore seems that safe traffic situation do not support living longer independently but that unsafe traffic situation do stress living longer independently. Consequently, this thesis assumes that if elderly do not feel comfortable to go outside due to unsafe traffic situations, they will remain inside. This in turn will decrease their activity space and social capital (Beard et al., 2009; Scharlach & Lehning, 2013). Design elements that can improve older pedestrian safety and allow individuals to walk to a variety of locations include continuous sidewalks, raised crosswalks and other improvements that reduce the speed of vehicle traffic (Heath, 2006 & Lynott et al., 2009).

A second support factor is an integrated care system. Coordination between the multiple care providers is necessary to help older persons and their families better navigate the long-term care system (Castle et al. 2009). In the Berflo Es, the cooperation between care providers is already quite developed. This is reflected by the findings of this research since elderly in the Berflo Es are more satisfied with the care available and also better known with the possibilities of combining informal and formal care than elderly in Helden en Panningen. In Helden en Panningen the cooperation between care providers is not so far-fetched yet as in the Berflo Es. Care providers only cooperate during night shifts and within primary care. It is therefore important to improve communication, and where appropriate also cooperation, between all care providers, also informal caregivers. Consequently, this may lead to improved opportunities to combine the use of informal care and home care.

Two factors were positioned under vulnerability: frailty and limitations. Both these factors where positioned here because during the analysis, it became clear that they both influence how effective environmental characteristics are on elderly. For example, the use of care services is influenced by physical limitations and frailty. The more physical limitations and frailty increase, the more elderly make us of (informal) care. This means that depending on the level of frailty and physical limitations, the supporting and stressing factors can have a different effect. This corresponds with the results of de Kam et al. (2012). In their research, de Kam et al. (2012) categorized elderly based on their level of frailty from vital to very needy (Peters et al., 2012; Steverink et al., 2001). They concluded that the possibility exist that for one profile completely different interventions are needed to be developed than for another profile.

6.4 Limitations to this research

Lastly, during this thesis, the data revealed additional insights that went beyond the scope of this research.

First of all, within the analyses some significant relations were found that could possibly be explained by reverse causality. For example, in 2012, the consideration of moving was a significant predictor for the satisfaction with the living situation. Elderly who did not want to move were more satisfied with the living situation than elderly who did want to move. However, the relation could also run in the reverse direction. The consideration of moving could very well have been a dependent variable that was influenced by the satisfaction with the living situation. The likelihood is that they both cause each other. Since this thesis has repeated the research and data analysis of 2012 and the researcher was bound to limited time, nothing

was done with this finding. However, it would have been interesting to see if the outcome had been the same if the independent variable would have acted as the dependent variable.

Secondly, the survey was set up to gather information on a wide range of topics. To make sure the questionnaire did not become too long, only a number of questions were selected for each topic. The questionnaire as a consequence covers a lot of topics, however it does not go into detail. This extensive but maybe not too detailed method of measurement may have resulted in some effects not being clearly reflected in the analysis.

In addition, this research has focused on two Integrated Service Areas. These two Integrated Service Areas have been used to research the difference between rural and urban areas. However, it could be that no or only a small difference have found between the Berflo Es and Helden-Panningen because they are both on an extreme of their continuum. Thus, although they are categorized differently they might overlap on some themes. Generalizations of the findings beyond this sample might therefore be limited. In addition, within the ISAs there is an unique interplay between the living environment, the people and its arrangement. As a result, interventions have a different effect on the quality of life. One should therefore keep in mind that there is no one size fits all approach to the improvement of Integrated Service areas.

Lastly, the procedure of the data collection did not go very smoothly. After the follow-up questionnaire was posted, the author discovered that the questionnaire did not include a question about the respondents its name and/or address. This meant that the author could not derive which person had responded and the two surveys could not be linked to one another. To correct this mistake, elderly in the Berflo Es were telephoned to inform them about the mishap and elderly in Peel en Maas received an additional letter. This letter explained what had gone wrong, and requested the elderly to write down their name and/or address on the follow-up questionnaire. If the elderly had already send the questionnaire back, they were asked to fill out a form with a repetition of some of the questions in the questionnaire so the forms could be compared and hopefully matched. Eventually, the author was able to link around 400 questionnaires.

Although this research has several limitations, I am very pleased with the end result. I can look back on an educational research period as a completion of my master program Socio-Spatial Planning at the University of Groningen, under the supervision of G.R.W. (George) de Kam.

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8. Appendix

Appendix 1: The information letter that was send to elderly in Helden en Panningen

Geachte heer/mevrouw,

Graag wil de Rijksuniversiteit Groningen u uitnodigen voor een onderzoek over langer zelfstandig thuis wonen in Helden en Panningen. In deze brief leest u daar meer over.

Waarom ontvang ik deze brief?

U ontvangt deze brief omdat u 70 jaar of ouder bent, en in Helden of Panningen woont. In Helden en Panningen wordt van alles georganiseerd om te zorgen dat ouderen langer thuis kunnen blijven wonen. Misschien hebt u daar zelf al iets van gemerkt. In uw dorp zijn de 'dorpsdagvoorziening' , seniorenvervoer H.E.P. en de dorpsinfoloketten' hier voorbeelden van. Een ander voorbeeld is het Huis van Morgen in de Bernhardstraat waar u kunt zien welke mogelijkheden er zijn om veiliger en langer thuis te wonen. Op deze manier probeert de gemeente in samenwerking met de gemeenschap en andere organisaties, waaronder welzijnsorganisatie Vorkmeer, de ouderen in Helden en Panningen zo goed mogelijk te ondersteunen. In 2012 is al onderzoek gedaan naar de kwaliteit van leven in woonservice gebieden. Dit onderzoek is ook uitgevoerd in Helden en Panningen. Sindsdien is er veel veranderd, onder andere het nationaal beleid. Om deze reden wil de Rijksuniversiteit Groningen dit onderzoek graag herhalen. De Rijksuniversiteit Groningen wil daarom onderzoeken hoe gebiedskenmerken en het aanbod van wonen, welzijn en zorg bijdragen aan de kwaliteit van leven van de populatie in Helden en Panningen. We vragen uw hulp bij dit onderzoek.

Wat moet ik doen?

In deze envelop vindt u enkele vragen waarmee uw gezondheid in kaart gebracht wordt. Het invullen van de enquête kost ongeveer twee minuten. Ook kunt u op de enquête aangeven of u mee wilt doen aan een meer uitgebreide enquête. Als u bereid bent om mee te doen aan het onderzoek, zou u dan deze vragenlijst voor 4 januari willen insturen? Dat kan met de bijgevoegde antwoordenvelop (een postzegel is niet nodig). Natuurlijk kunt u de enquête ook online invullen via internet. Indien u dit graag wilt, stuur dan uw e-mailadres naar ouderenheldenpanningen@rug.nl en dan krijgt u van ons de link toegestuurd.

Hoe gaat het vervolg van deze enquête in zijn werk?

Als u aangeeft dat u mee wilt doen, ontvangt u begin januari van de Rijksuniversiteit Groningen een uitgebreide enquête met vragen over uw gezondheid, beperkingen, welbevinden, sociale contacten, zorg en woonsituatie.

Wat wordt er met mijn gegevens gedaan?

De Rijksuniversiteit Groningen is zich ervan bewust dat het om persoonlijke gegevens gaat en zal deze uitsluitend in het kader van dit onderzoek gebruiken. Alleen de onderzoeker krijgt inzage in uw antwoorden. Uw gegevens zullen niet worden gebruikt voor andere doeleinden en niet worden verstrekt aan derden. Alle informatie wordt vertrouwelijk verwerkt en na afloop van het onderzoek worden alle persoonlijke gegevens vernietigd. In de rapportage van het onderzoek wordt op geen enkele manier verwezen naar individuele personen, adressen of omstandigheden. Het onderzoek is vrijwillig. U kunt uw medewerking op elk tijdstip stopzetten zonder reden en de gegevens die verkregen zijn uit dit onderzoek terugkrijgen.

Bij het versturen van dit formulier geef ik toestemming dat deze gegevens mogen worden gebruikt ten behoeve van het onderzoek. Ik begrijp wat het doel is van het onderzoek en snap de inhoud van het onderzoek. Ik begrijp dat meewerken aan het onderzoek vrijwillig is en dat ik op elk moment zonder reden mijn medewerking aan het onderzoek kan beëindigen.

Toestemming verwerken persoonsgegevens:

Handtekening:…….. Plaats:…….
Datum:……

Meer weten?
Met vragen over het onderzoek kunt u contact opnemen met mevrouw E. van der Zaag via 06-55386856 of ouderenheldenpanningen@rug.nl. Aan het einde van het onderzoek is het mogelijk om het onderzoek en de resultaten opgestuurd te krijgen.

Hulp nodig bij het invullen?

De ouderenadviseurs van dorpsinfoloket Helden (06 3462 9983) of KBO infotelefoon Panningen (06 2807 3349) zijn graag bereid u te helpen.

Appendix 2: The information letter that was send to elderly in the Berflo Es

Geachte heer/mevrouw,

Graag willen we u uitnodigen voor een onderzoek over langer zelfstandig thuis wonen in de Berflo Es. In deze brief leest u daar meer over.

Waarom ontvang ik deze brief?

U ontvangt deze brief omdat u 70 jaar of ouder bent en in de Berflo Es woont. De Berflo Es is een wijk waar van alles wordt georganiseerd om te zorgen dat ouderen langer thuis kunnen blijven wonen. Misschien hebt u al gemerkt dat er verschillende maatregelen getroffen zijn zodat u beter en langer zelfstandig kunt wonen. Op deze manier probeert de gemeente Hengelo in samenwerking met andere organisaties, waaronder Wijkracht en woningcorporatie Welbions, de ouderen in de Berflo Es zo goed mogelijk te ondersteunen. De gemeente Hengelo wil graag samen met de Rijksuniversiteit Groningen onderzoeken of de afstemming in wonen, zorg en welzijn daadwerkelijk effect heeft op de oudere bewoners en of de gemeente op de goede weg is. We vragen uw hulp bij dit onderzoek.

Wat moet ik doen?

In deze envelop vindt u een enquête waarmee uw gezondheid in kaart gebracht wordt. Het invullen van de enquête kost ongeveer twee minuten. Ook kunt u op de enquête aangeven of u mee wilt doen aan een meer uitgebreide enquête. Als u bereid bent om mee te doen aan het onderzoek, zou u dan de ingevulde enquête voor 4 januari willen insturen? Dat kan met de bijgevoegde antwoordenvelop (een postzegel is niet nodig). Natuurlijk kunt u de enquête ook online invullen via internet. Indien u dit graag wilt, stuur dan uw e-mailadres naar ouderenberfloes@rug.nl en dan krijgt u van ons de link toegestuurd.

Hoe gaat het vervolg van deze enquête in zijn werk?

Als u aangeeft dat u ook aan de vervolg enquête mee wilt doen, ontvangt u deze begin januari van de Rijksuniversiteit Groningen. De vragen in de uitgebreide vragenlijst gaan over uw gezondheid, beperkingen, welbevinden, sociale contacten, zorg en woonsituatie.

Wat wordt er met mijn gegevens gedaan?

De gemeente Hengelo en de Rijksuniversiteit Groningen zijn zich ervan bewust dat het om persoonlijke gegevens gaat en zullen deze uitsluitend in het kader van dit onderzoek gebruiken. Alleen de onderzoeker krijgt inzage in uw antwoorden. Uw gegevens zullen niet worden gebruikt voor andere doeleinden en niet worden verstrekt aan derden. Alle informatie wordt vertrouwelijk verwerkt en na afloop van het onderzoek worden alle persoonlijke gegevens vernietigd. In de rapportage van het onderzoek wordt op geen enkele manier verwezen naar individuele personen, adressen of omstandigheden. Het onderzoek is vrijwillig. U kunt uw medewerking op elk tijdstip stopzetten zonder reden en de gegevens die verkregen zijn uit dit onderzoek terugkrijgen.

Toestemming verwerken persoonsgegevens:

Handtekening:…….. Plaats:…….

Datum:……

Bij het versturen van dit formulier geef ik toestemming dat deze gegevens mogen worden gebruikt ten behoeve van het onderzoek. Ik begrijp wat het doel is van het onderzoek en snap de inhoud van het onderzoek. Ik begrijp dat meewerken aan het onderzoek vrijwillig is en dat ik op elk moment zonder reden mijn medewerking aan het onderzoek kan beëindigen.

Meer weten?

Met vragen over het onderzoek kunt u contact opnemen met mevrouw E. van der Zaag via 06-55386856 of ouderenberfloes@rug.nl. Aan het einde van het onderzoek is het mogelijk om het onderzoek en de resultaten opgestuurd te krijgen.

Met vriendelijke groet,
Burgemeester en Wethouders van Hengelo,
namens dezen,
plv Afdelingshoofd Beleid
$handtekening$
$naam$

Bijlagen: 2

Appendix 3: The first questionnaire

Vragenlijst 'Ouderen in woonservicegebieden'
Hierbij geef ik aan deel te nemen aan het onderzoek 'Ouderen in woonservicegebieden'. U kunt mij benaderen om de langere vragenlijst te beantwoorden.

Naam:

Telefoonnummer:

Indien van toepassing e-mailadres:

Om voor het onderzoek de juiste groep ouderen te kunnen benaderen, vraag ik u onderstaande vragen volledig in te vullen. Per vraag mag u maar één antwoord geven.

Vraag 1 Kunt u geheel zelfstandig functioneren in het dagelijks leven?
Met zelfstandig wordt bedoeld: zonder enige vorm van hulp van iemand. Gebruik maken van hulpmiddelen als stok, rollator, rolstoel, geldt als zelfstandig. Voorbeelden: zelfstandig boodschappen doen, zelfstandig aan- en uitkleden.

□ Ja □ Nee

Vraag 2 Als u een rapportcijfer zou moeten geven voor uw lichamelijke fitheid, waarbij een 1 staat voor heel slecht, en een 10 staat voor uitstekend, wat zou dit cijfer dan zijn?
Let op: geef alleen hele cijfers.

Cijfer voor fitheid:
……..

Vraag 3 Gebruikt u op dit moment 4 of meer verschillende soorten medicijnen?
□ Ja □ Nee

Vraag 4 Hoe vaak hebt u zich de afgelopen maand gelukkig gevoeld?
□ Altijd □ Heel vaak □ Redelijk vaak □ Soms □ Bijna nooit □ Nooit

Vraag 5 Mist u wel eens mensen om u heen? □ Ja! □ Ja □ Soms □ Nee □ Nee!

Vraag 6 Leeft u met een partner?
□ Ja
□ Nee, ik ben gescheiden / ik heb nooit een partner gehad
□ Nee, mijn partner is minder dan 5 jaar geleden overleden
□ Nee, mijn partner is meer dan 5 jaar geleden overleden
□ Nee, mijn partner en ik wonen niet samen

Vraag 7 Overweegt u wel eens om te verhuizen?
□ Ja, naar een verzorgingshuis / verpleeghuis
□ Ja, naar een ouderenwoning (zonder trappen, met brede deuren, etc.)
□ Ja, anders namelijk:…….
□ Nee

Wilt u zo vriendelijk zijn deze brief met uw antwoorden voor *datum* 2011 terug te sturen in bijgevoegde enveloppe. Een postzegel is niet nodig. De vragen kunnen ook eenvoudig met uw persoonlijke inlogcode via internet ingevuld worden op www.wonenouderen.nl (z.o.z.).

Appendix 4: The accompanying letter of the follow-up questionnaire that was send to elderly in the Berflo Es

Geachte heer/mevrouw.

Een paar week geleden heeft u een vragenlijst ingevuld over het welzijn van ouderen in de Berflo Es. De vragen in deze lijst waren voornamelijk gericht op uw gezondheid. Nogmaals hartelijk dank daarvoor. U heeft in deze vragenlijst aangegeven, bereid te zijn mee te werken aan een vervolgonderzoek. Wij sturen u daarom het vervolgonderzoek op.

Waar gaat het onderzoek over?

In de Berflo Es wordt van alles georganiseerd om te zorgen dat ouderen langer thuis kunnen blijven wonen. Misschien hebt u al gemerkt dat er verschillende maatregelen getroffen zijn zodat u beter en langer zelfstandig kunt wonen. Op deze manier probeert de gemeente Hengelo in samenwerking met de gemeenschap en andere organisaties, waaronder Wijkracht en woningcorporatie Welbions, de ouderen in de Berflo Es zo goed mogelijk te ondersteunen. In 2012 is al onderzoek gedaan naar de kwaliteit van leven in woonservice gebieden. Dit onderzoek is ook uitgevoerd in de Berflo Es. Sindsdien is er veel veranderd, onder andere het nationaal beleid. Om deze reden wil de Rijksuniversiteit Groningen dit onderzoek graag herhalen. De Rijksuniversiteit Groningen wil daarom onderzoeken hoe gebiedskenmerken en het aanbod van wonen, welzijn en zorg bijdragen aan de kwaliteit van leven van de populatie in de Berflo Es.

Wat moet ik doen?

In deze envelop vindt u een uitgebreide vragenlijst over de kwaliteit van leven in de Berflo Es. De vragen gaan over uw fysieke en mentale gezondheid, over uw tevredenheid met (lokale) diensten en over de kwaliteit van ondersteunende netwerken. Het invullen van de enquête kost ongeveer een half uur. Als u bereid bent om mee te doen aan het onderzoek, zou u dan deze vragenlijst voor 17 februari willen insturen? Dat kan met de bijgevoegde antwoordenvelop (een postzegel is niet nodig). Natuurlijk kunt u de enquête ook online invullen via internet. Indien u dit graag wilt, stuur dan uw e-mailadres naar ouderenberfloes@rug.nl en dan krijgt u van ons de link toegestuurd.

Wat wordt er met mijn gegevens gedaan?

Wij willen u nogmaals benadrukken dat uw gegevens niet zullen worden gebruikt voor andere doeleinden en niet worden verstrekt aan derden. Alle informatie wordt vertrouwelijk verwerkt en na afloop van het onderzoek worden alle persoonlijke gegevens vernietigd. In de rapportage van het onderzoek wordt op geen enkele manier verwezen naar individuele personen, adressen of omstandigheden.

Wij willen u hartelijk danken voor uw deelname aan het onderzoek.

Met vriendelijke groet,

Esra van der Zaag

Meer weten?

Met vragen over het onderzoek kunt u contact opnemen met mevrouw E. van der Zaag via 06-55386856 of ouderenberfloes@rug.nl. Aan het einde van het onderzoek is het mogelijk om het onderzoek en de resultaten opgestuurd te krijgen.

Appendix 5: The follow-up questionnaire that was send to elderly in the Berflo Es

VERVOLG ENQUÊTE DE BERFLO ES: IN DEZE ENQUÊTE STAAN VRAGEN OVER WONEN, ZORG EN ONDERSTEUNING CENTRAAL. KIES BIJ ELKE VRAAG, HET ANTWOORD DAT HET MEEST BIJ UW SITUATIE PAST.

ALGEMENE VRAGEN

1a Vult u de vragenlijst zelf in of krijgt u hierbij hulp?

a. Ik vul de vragenlijst zelf in
b. Ik vul de vragenlijst zelf in, maar met hulp van een ander
c. De vragenlijst wordt in overleg met mij door een ander ingevuld

1b Als u geholpen wordt bij het invullen van de vragenlijst of de vragenlijst wordt door een ander ingevuld, wie is dit dan?

a. Partner
b. Familielid
c. Zorgverlener
d. Medewerker van een welzijnsorganisatie
e. Niet van toepassing
f. Overig

2 Wanneer bent u geboren? (Jaartal)

……..

3 Bent u een man of een vrouw?

a. Man b. Vrouw

4a In welk land bent u geboren?

a. Nederland
b. Ander land, namelijk:……..

4b In welk land is uw vader geboren?

a. Nederland
b. Ander land, namelijk:……..

4c In welk land is uw moeder geboren?

a. Nederland
b. Ander land, namelijk:……..

5 Hoe woont en leeft u?

a. Zelfstandig met anderen
b. Zelfstandig zonder anderen
c. Met partner in een aanleunwoning*
d. Alleen in een aanleunwoning*
e. Met partner in een verzorgingshuis
f. Alleen in een verzorgingshuis
g. Alleen in een verpleeghuis
h. Anders, namelijk:……..

* *Een aanleunwoning is een (huur)woning voor ouderen. U woont er zelfstandig, maar u kunt gebruik maken van de zorg en de service van een verzorgingshuis of verpleeghuis dicht in de buurt.*

UW WELBEVINDEN

6 Heeft u een indicatie voor zorg en ondersteuning:

a. Ik heb geen indicatie voor zorg en ondersteuning
b. Ik heb een indicatie op basis van somatische problematiek
c. Ik heb een indicatie op basis van regieproblematiek
d. Ik heb een indicatie op basis van zorg met verblijf (ZMV)
e. Ik weet niet of ik een indicatie heb voor zorg en ondersteuning

7 Ervaart u beperkingen door lichamelijke klachten?

a. Ik ervaar geen beperkingen
b. Ik ervaar minder dan drie maanden beperkingen
c. Ik ervaar langer dan drie maanden beperkingen
d. Ik heb de afgelopen vijf jaar meerdere, kortere perioden met beperkingen ervaren

8 In hoeverre worden uw dagelijkse activiteiten beperkt door lichamelijke klachten en beperkingen?

a. Niet
b. Enigszins
c. Behoorlijk
d. Ernstig

9 Hoe mobiel bent u?

a. Ik heb geen hulp of hulpmiddelen nodig
b. Ik gebruik alleen een wandelstok
c. Ik gebruik een rollator of looprek en/of krijg wat hulp bij dagelijkse activiteiten
d. Ik krijg veel hulp bij dagelijkse activiteiten en/of maak soms gebruik van een rolstoel en hoog/laag bed
e. Ik ben afhankelijk van verzorging en/of gebruik een elektrische rolstoel en tillift

10 Ervaart u problemen in het dagelijks leven, omdat u slecht ter been bent?

a. Nee, geen problemen
b. Ja, enige problemen
c. Ja, veel problemen

11 Ervaart u problemen in het dagelijks leven door slecht zien?

a. Nee, geen problemen
b. Ja, enige problemen
c. Ja, veel problemen

12 Ervaart u problemen in het dagelijks leven door slecht horen?

a. Nee, geen problemen
b. Ja, enige problemen
c. Ja, veel problemen

13 Ervaart u problemen met uw geheugen?

a. Nee

b. Soms
c. Ja

14 Heeft u wel eens last gehad van psychische problemen, zoals zich gespannen voelen, angst, somberheid of in de war zijn?

a. Nee, bijna nooit
b. Wel eens, maar dit was niet van invloed op mijn dagelijkse leven
c. Wel eens en dit had een duidelijke invloed op mijn dagelijkse leven
d. Ja, mijn psychische klachten waren of zijn voortdurend van invloed op mijn dagelijks leven

15 Heeft u op dit moment psychische problemen, zoals zich gespannen voelen, angst, somberheid of in de war zijn?

a. Nee, geen psychische problemen
b. Ja, één of enkele psychische problemen
c. Ja, veel psychische problemen
d. Ja, heel veel psychische problemen

16 Wat doet u zoal in een week?

a. Ik heb meerdere activiteiten per week
b. Ik heb elke week een andere activiteit
c. Ik heb bijna altijd dezelfde activiteit
d. Ik heb (bijna) geen activiteiten waarmee ik in contact kom met andere mensen

17 Kunt u zonder enige hulp van iemand anders zelfstandig de volgende activiteiten uitvoeren, eventueel met behulp van stok, rollator, rolstoel?

Boodschappen doen	☐ Ja	☐ Nee
Buitenshuis verplaatsen	☐ Ja	☐ Nee
Aan- en uitkleden	☐ Ja	☐ Nee
Naar het toilet gaan	☐ Ja	☐ Nee

18 Hoe vaak hebben uw lichamelijke gezondheid of emotionele problemen in de afgelopen 4 weken uw sociale activiteiten belemmerd?

a. Nooit
b. Zelden
c. Soms
d. Meestal
e. Voortdurend

SOCIALE CONTACTEN

19 Hoe is uw contact met andere mensen?

a. Ik heb genoeg contact met andere mensen
b. Ik heb wel eens contact met andere mensen.
c. Het lukt me niet contacten en vriendschappen te sluiten of te onderhouden

20 Hoe vaak heeft u contact met de volgende groepen mensen:

	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder dan één keer per maand	Nooit
Uw familie	☐	☐	☐	☐	☐
Uw directe buren	☐	☐	☐	☐	☐
Andere buurtbewoners	☐	☐	☐	☐	☐
Uw vrienden	☐	☐	☐	☐	☐
Clubs/verenigingen	☐	☐	☐	☐	☐

21 Hoe tevreden bent u over dit contact met de volgende groepen mensen:

	Zeer tevreden	Tevreden	Neutraal	Ontevreden	Zeer ontevreden
Uw familie	☐	☐	☐	☐	☐
Uw directe buren	☐	☐	☐	☐	☐
Andere buurtbewoners	☐	☐	☐	☐	☐
Uw vrienden	☐	☐	☐	☐	☐
Clubs/verenigingen	☐	☐	☐	☐	☐

22 Als u op het werk, bij familie, een vereniging of de kerk bent, heeft u dan het gevoel dat u erbij hoort?

a. Altijd
b. Vaak
c. Soms
d. Nooit

23 Hebben de mensen aandacht voor u?

a. Altijd
b. Vaak
c. Soms
d. Nooit

24 Wil men u helpen als u een probleem heeft?

a. Altijd
b. Vaak
c. Soms
d. Nooit

WONEN EN SOCIAAL KLIMAAT

25 Is uw thuissituatie naar tevredenheid?

a. Er zijn nu geen veranderingen nodig, want ik kan mijzelf redden
b. Er zijn nu geen veranderingen nodig, want ik heb voldoende steun en zorg van anderen of ik verblijf in een verpleeg- of verzorgingshuis
c. Er zijn veranderingen in de woonsituatie nodig, maar dat hoeft niet gelijk
d. Er zijn onmiddellijk veranderingen in de woonsituatie nodig

26 Verwacht u dat er in de komende 6 maanden iets aan uw (woon)situatie veranderd moet worden?

a. Er hoeft in de komende 6 maanden niets veranderd te worden aan mijn (woon)situatie
b. Ik kan naar huis of ik kan thuis blijven, maar heb in de komende 6 maanden thuiszorg nodig
c. Ik moet in de komende 6 maanden tijdelijk naar een andere situatie

d. Ik moet binnen 6 maanden definitief verhuizen naar een andere woonvorm
e. Ik denk niet na over de toekomst, ik leef van dag tot dag

27 Wat voor type woning heeft u?

a. Appartement zonder lift
b. Appartement met lift
c. Rijtjeswoning
d. Twee onder één kap woning
e. Vrijstaande woning

28 Heeft u een koop- of huurwoning?

a. Koopwoning b. Huurwoning

29 Is uw woning voor u geschikt om oud in te worden?

a. Ja
b. Nee, er zijn (meer) aanpassingen nodig
c. Nee, er zal een verhuizing nodig zijn

30 Is het mogelijk dat iemand uw woning kan bereiken vanaf de straat met:

a. Een rolstoel
b. Na enkele aanpassingen met een rolstoel
c. Een rollator
d. Geen van bovenstaande opties

31 Is het mogelijk dat iemand in uw woning alle belangrijke ruimtes kan bereiken met:

a. Een rolstoel
b. Na enkele aanpassingen met een rolstoel
c. Een rollator
d. Geen van bovenstaande opties

32a Is uw woning speciaal bestemd voor ouderen/aangepast voor ouderen?

a. Ja b. Nee

32b Zo ja, aan welke voorwaarden moest u voldoen om in uw woning te mogen wonen?

a. Gezondheids- en/of medische indicatie
b. Leeftijdsgrens
c. Beide
d. Geen voorwaarden

33 Bent u tevreden met de aanpassingen aan uw woning?

a. Ja b. Nee

34 Welke hulpmiddelen zijn er in uw woning aangebracht? (Meerdere antwoorden mogelijk)

a. Technologische hulpmiddelen/domotica
b. Personenalarmsysteem
c. Traplift
d. Douchezitje/douchesteunen/badplank
e. Extra handgrepen/beugels
f. Opvuldrempel/drempeloprit

g. Bedverhogers/bedstangen
h. Toiletstoel/toiletverhoger
i. Anders, namelijk:……
j. Geen van bovenstaande

35 Sinds welk jaar woont u in uw huidige woning? (Jaartal)

…….

36 Denkt u dat uw huidige buurt geschikt is om voor altijd te blijven wonen?

a. Ja
b. Nee
c. Weet ik niet

37 Zijn voor u de voorzieningen in de wijk goed bereikbaar?

a. Ja
b. Ja, de meeste wel
c. Niet allemaal
d. Nee, de meeste niet
e. Nee

38 Voelt u zich overdag wel eens onveilig thuis?

a. Nee
b. Zelden
c. Ja, soms
d. Ja, vaak

39 Voelt u zich overdag wel eens onveilig op straat?

a. Nee
b. Zelden
c. Ja, soms
d. Ja, vaak

40 Voelt u zich ’s avonds of 's nachts wel eens onveilig thuis?

a. Nee
b. Zelden
c. Ja, soms
d. Ja, vaak

41 Voelt u zich ’s avonds of 's nachts wel eens onveilig op straat?

a. Nee
b. Zelden
c. Ja, soms
d. Ja, vaak

42 Gaat u alleen de deur uit?

a. Ja
b. Ja, maar alleen overdag
c. Nee, altijd met begeleiding
d. Nee, ik ga nooit de deur uit

43 Hoe beoordeelt u de verkeersveiligheid in uw buurt?

a. Goed
b. Voldoende, er zijn een paar verbeteringen nodig
c. Onvoldoende, er zijn veel verbeteringen nodig

44 Wat zou verbeterd kunnen worden?

a. Oversteekmogelijkheden
b. Gedrag automobilisten
c. Gedrag fietsers/brommers/scooters
d. Obstakels/oneffenheden in routes die u gebruikt
e. Onderhoud op routes die u gebruikt

45 Hoe tevreden bent u met uw woning?

a. Helemaal tevreden
b. Tevreden
c. Niet tevreden, niet ontevreden
d. Ontevreden
e. Helemaal ontevreden

46 Overweegt u wel eens om te verhuizen?

a. Ja, naar een verzorgingshuis/verpleeghuis
b. Ja, naar een ouderenwoning
c. Ja, anders:…….
d. Nee

47 Als u zou verhuizen, waarmee heeft dat dan te maken?

a. Ik wil groter wonen
b. Ik wil kleiner wonen
c. Ik wil mooier / beter wonen
d. Omstandigheden in het huishouden (samenwonen, scheiding, overlijden)
e. Woning is te duur
f. Vanwege gezondheid / invaliditeit / leeftijd
g. De buurt bevalt niet (meer)
h. Ik wil dichter bij familie / vrienden wonen
i. Anders, namelijk:……
j. Niet van toepassing / ga niet verhuizen

48 Zijn er volgens u, indien u zal moeten verhuizen vanwege uw gezondheid, genoeg mogelijkheden binnen uw buurt of dorp?

a. Er zijn (genoeg) ouderenwoningen beschikbaar en er is een verzorgingshuis/verpleeghuis
b. Er is alleen een verzorgingshuis/verpleeghuis
c. Er zijn alleen (genoeg) ouderenwoningen beschikbaar
d. Er zijn geen (of niet genoeg) ouderenwoningen beschikbaar en er is geen verzorgingshuis/verpleeghuis
e. Daar heb ik me niet in verdiept, want ik wil in dat geval toch niet in deze buurt blijven wonen
f. Dat weet ik niet

49 Staat u ingeschreven bij een woningcorporatie of staat u op de wachtlijst voor een verzorgingshuis?

a. Ja, sinds een maand of minder
b. Ja, al een paar maanden
c. Ja, al een half jaar tot een jaar
d. Ja, al meer dan een jaar
e. Nee

50 Hoe verbonden voelt u zich met uw buurt?

a. Zeer sterk
b. Sterk
c. Niet sterk, niet zwak
d. Zwak
e. Zeer zwak

ZORG

51 Hoe vaak bent u de laatste vijf jaar in aanraking geweest met de gezondheidszorg? (Meerdere antwoorden mogelijk)

a. Ik heb minder dan vier keer per jaar contact gehad met een huisarts
b. Ik heb vier keer per jaar of vaker contact gehad met een huisarts
c. Ik heb één of meerdere keren contact gehad met dezelfde specialist
d. Ik heb contact gehad met meerdere specialisten
e. Ik ben in het ziekenhuis opgenomen geweest
f. Ik ben meerdere keren opgenomen geweest in het ziekenhuis
g. Ik heb langer dan 7 dagen op een intensive care afdeling gelegen
h. Ik ben langer dan 6 weken opgenomen geweest in een revalidatiecentrum of verpleeghuis

52 Bij wie bent u onder behandeling of van wie ontvangt u zorg? (Meerdere antwoorden mogelijk)

a. Huisarts
b. Verpleeghuisarts
c. Een specialist
d. Meerdere specialisten voor lichamelijke klachten
e. Specialist voor psychische klachten
f. Psycholoog
g. Diëtist
h. Maatschappelijk werker
i. Fysiotherapeut
j. Logopedist
k. Verpleegkundige/verzorgende thuiszorg
l. Verpleegkundige in ziekenhuis
m. Ik ontvang geen behandeling of zorg
n. Anders, namelijk:……..

53 Krijgt u voldoende en de juiste zorg van uw zorgverleners en behandelaars?

a. Ik heb geen zorg nodig
b. Ik krijg alle zorg die ik nodig heb
c. Ik krijg geen zorg, maar heb dat wel nodig
d. Ik heb meer nodig van de zorg die ik nu krijg
e. Ik heb een ander soort zorg nodig

f. Ik heb veel meer of hele andere zorg nodig

54 In hoeverre werken de zorgverleners en behandelaars volgens u goed met elkaar samen?

a. Ik krijg geen zorg of alleen zorg van één zorgverlener of behandelaar
b. De zorgverleners en behandelaars werken goed met elkaar samen
c. De zorgverleners en behandelaars werken samen, maar af en toe is meer overleg tussen hen wenselijk
d. De zorgverleners en behandelaars werken niet zo goed samen en daardoor gaat er wel eens iets mis
e. De zorgverleners en behandelaars werken langs elkaar heen

55 Verwacht u dat u in de komende 6 maanden meer of minder hulp nodig heeft?

a. Over 6 maanden verwacht ik geen hulp nodig te hebben
b. Over 6 maanden verwacht ik dat de hulp die ik krijg gelijk is gebleven
c. Over 6 maanden verwacht ik minder hulp nodig te hebben
d. Over 6 maanden verwacht ik meer hulp nodig te hebben
e. Over 6 maanden verwacht ik veel meer hulp nodig te hebben
f. Ik denk niet na over de toekomst, ik leef van dag tot dag

56 Wat zijn uw ervaringen met zorgverleners of behandelaars in de afgelopen 5 jaar?

a. Ik heb nooit problemen ervaren met zorgverleners of behandelaars
b. Ik of mijn naasten hebben negatieve ervaringen met een zorgverlener of behandelaar gehad
c. Vanwege een negatieve ervaring met een zorgverlener of behandelaar ben ik wel eens naar een andere zorgverlener of behandelaar gegaan
d. Ik heb regelmatig conflicten met zorgverleners of behandelaars of ben wel eens tegen mijn zin opgenomen geweest

57 Welke WMO-voorzieningen gebruikt u:

a. Huishoudelijke hulp
b. Begeleiding Individueel
c. Dagbesteding
d. Groepsvervoer, bijvoorbeeld taxi's of ouderen busjes
e. Eigen vervoersvoorzieningen zoals scootmobiel, elektrische rolstoel
f. Anders, namelijk:……
g. Ik maak geen gebruik van WMO-voorzieningen.

58 Hoe vaak krijgt u momenteel mantelzorg?

a. Nooit
b. Minder dan één keer per week
c. Eén keer per week
d. Meer dan één keer per week
e. Eén keer per dag
f. Meer dan één keer per dag

59 Hoe vaak komt momenteel een vrijwilliger langs?

a. Nooit
b. Minder dan één keer per week

c. Eén keer per week
d. Meer dan één keer per week
e. Eén keer per dag
f. Meer dan één keer per dag

60 Waaruit bestaat deze mantelzorg/ vrijwilligerswerk?

	Mantelzorger(s)	Vrijwilliger(s)
Hulp in de huishouding	JA / NEE	JA / NEE
Klaarmaken van de warme maaltijden	JA / NEE	JA / NEE
Hulp bij persoonlijke verzorging	JA / NEE	JA / NEE
Hulp bij medische verzorging	JA / NEE	JA / NEE
Gezelschap, troost, afleiding, goed gesprek	JA / NEE	JA / NEE
Begeleiding en/of vervoer	JA / NEE	JA / NEE
Regeling geldzaken en/of andere administratie	JA / NEE	JA / NEE
Klusjes in huis	JA / NEE	JA / NEE
Andere zaken, namelijk:	……	……
	……	……

61 Verricht u zelf vrijwilligerswerk en/of mantelzorg?

a. Ja, beide
b. Ja, alleen vrijwilligerswerk
c. Ja, alleen mantelzorg
d. Nee

62 Hoe ervaart u de belasting als mantelzorger?

a. Prima te doen
b. Soms wel zwaar
c. Regelmatig zwaar
d. Te zwaar

63 Heeft u thuiszorg?

a. Nee
b. Ja, namelijk … uur per week

<u>QUALITY OF LIFE EN VOORZIENINGEN</u>

64 Waar beleeft u plezier aan? (Meerdere antwoorden mogelijk)

a. Genieten van eten en drinken
b. Lekker slapen en rusten
c. Plezierige relaties en contacten
d. Actief zijn
e. Jezelf redden
f. Jezelf zijn
g. Je gezond voelen van lichaam en geest
h. Plezierig wonen
i. Ik vind geen van deze gebieden belangrijk
j. Anders, namelijk:…….

65 Hoe tevreden bent u over de volgende aspecten:

	ja, ik ben hier tevreden mee	nee, het kan beter
Genieten van eten en drinken	☐	☐
Lekker slapen en rusten	☐	☐
Plezierige relaties en contacten	☐	☐
Actief zijn	☐	☐
Jezelf redden	☐	☐
Jezelf zijn	☐	☐
Je gezond voelen van lichaam en geest	☐	☐
Plezierig wonen	☐	☐

66 Neemt u (actief) deel aan de volgende activiteiten in uw buurt? (Meerdere antwoorden mogelijk)

a. Ik doe vrijwilligerswerk in mijn buurt
b. Ik neem deel aan een buurt/wijkgroep
c. Ik ben lid van een club/vereniging in de wijk
d. Ik ben lid van een religieuze gemeenschap
e. Ik heb regelmatig contact met buurtbewoners
f. Anders, namelijk……..
g. Geen van bovenstaande activiteiten

67 Hoe denkt u over de volgende stellingen:

	Zeer eens	Eens	Neutraal	Oneens	Zeer oneens
Ik voel mij medeverantwoordelijk voor de leefbaarheid in de buurt	☐	☐	☐	☐	☐
In de buurt gaat men op een prettige manier met elkaar om	☐	☐	☐	☐	☐
Ik woon in een gezellige buurt waar mensen elkaar helpen en samen dingen doen	☐	☐	☐	☐	☐
Mensen kennen elkaar nauwelijks in deze buurt	☐	☐	☐	☐	☐
Ik ben tevreden met de bevolkingssamenstelling in de buurt	☐	☐	☐	☐	☐

68 Hoe tevreden bent u over de volgende voorzieningen:

	Zeer tevreden	Tevreden	Neutraal	Ontevreden	Zeer ontevreden
Supermarkt	☐	☐	☐	☐	☐
Huisarts	☐	☐	☐	☐	☐
Apotheek	☐	☐	☐	☐	☐
Openbaar vervoer	☐	☐	☐	☐	☐
Ontmoetingsplekken	☐	☐	☐	☐	☐
Groenvoorzieningen	☐	☐	☐	☐	☐
Sportverenigingen	☐	☐	☐	☐	☐
Buurtinitiatieven	☐	☐	☐	☐	☐

69 U woont zelfstandig, maakt u wel eens gebruik van de volgende diensten?

a. Hulp bij dagelijkse handelingen/verzorging (aan- en uitkleden, wassen e.d.)
b. Huishoudelijke hulp

c. Verpleegkundige hulp
d. Hulpmiddel en/of aanpassingen in huis (rollator, rolstoel, scootmobiel, traplift, e.d.)
e. Hulp bij administratie en/of financiën
f. Ondersteuning bij het uitbouwen en onderhouden van sociale contacten
g. Ondersteuning bij het vinden/doen van activiteiten (bijvoorbeeld hobby's of sport)
h. Ik heb niets nodig
i. Anders, namelijk:……

70 Heeft u behoefte aan één of meer van de hierboven genoemde diensten? Zo ja, welke (meerdere antwoorden mogelijk):

……
……

71: Hoe vaak maakt u gebruik van volgende voorzieningen?

Wijkcentra	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder vaak	Nooit	Nooit van gehoord
Berflohoes	☐	☐	☐	☐	☐	☐
Wijkcentra de Tempel	☐	☐	☐	☐	☐	☐
De jeugd	☐	☐	☐	☐	☐	☐
Buurtcentrum 't Lansink	☐	☐	☐	☐	☐	☐
Dagopvang/activiteiten	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder vaak	Nooit	Nooit van gehoord
Vertierkwartier in de Klokstee	☐	☐	☐	☐	☐	☐
De Sjook	☐	☐	☐	☐	☐	☐
Berflohoes	☐	☐	☐	☐	☐	☐
Eetpunten	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder vaak	Nooit	Nooit van gehoord
Berflo Hoes	☐	☐	☐	☐	☐	☐
Buurtmensa Uit & Zo	☐	☐	☐	☐	☐	☐
De Klokstee (Het vertierkwartier)	☐	☐	☐	☐	☐	☐
Winkelvoorzieningen	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder vaak	Nooit	Nooit van gehoord
Esrein	☐	☐	☐	☐	☐	☐
Berfloweg	☐	☐	☐	☐	☐	☐
Overige activiteiten	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder vaak	Nooit	Nooit van gehoord
Hengelose Senioren Sport	☐	☐	☐	☐	☐	☐
Bibliotheek	☐	☐	☐	☐	☐	☐

72 Wat vindt u van de kwaliteit van de woonomgeving in uw buurt? (Waarbij 1 zeer slecht is en 10 zeer goed is)

1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

DIT WAS HET EINDE VAN DE VRAGENLIJST. HARTELIJK DANK VOOR UW MEDEWERKING

Graag zouden we u willen uitnodigen voor een vervolggesprek. Als u mee wilt doen aan het vervolggesprek dan komt er iemand bij u thuis langs. Het vervolggesprek zal dieper ingaan op de punten die in deze vragenlijst aan bod zijn gekomen. In deze vragenlijst stonden vooral gebiedskenmerken centraal. In het vervolggesprek zal het verband tussen persoonskenmerken en gebiedskenmerken beter onderzocht worden.

Bent u bereid om mee te werken aan een vervolggesprek?

a. Ja, mijn telefoonnummer is:……..
b. Ja, mijn e-mailadres is:……
c. Nee

Appendix 6: The accompanying letter of the follow-up questionnaire that was send to elderly in Helden en Panningen

Geachte heer/mevrouw.

Een paar week geleden heeft u een vragenlijst ingevuld over het welzijn van ouderen in Helden en Panningen. De vragen in deze lijst waren voornamelijk gericht op uw gezondheid. Nogmaals hartelijk dank daarvoor. U heeft in deze vragenlijst aangegeven, bereid te zijn mee te werken aan een vervolgonderzoek. Wij sturen u daarom het vervolgonderzoek op.

Waar gaat het onderzoek over?

In Helden en Panningen wordt van alles georganiseerd om te zorgen dat ouderen langer thuis kunnen blijven wonen. Misschien hebt u daar zelf al iets van gemerkt. In uw dorp zijn de 'dorpsdagvoorziening' ,seniorenvervoer H.E.P. en de dorpsinfoloketten' hier voorbeelden van. Een ander voorbeeld is het Huis van Morgen in de Bernhardstraat waar u kunt zien welke mogelijkheden er zijn om veiliger en langer thuis te wonen. Op deze manier probeert de gemeente in samenwerking met de gemeenschap en andere organisaties, waaronder welzijnsorganisatie Vorkmeer, de ouderen in Helden en Panningen zo goed mogelijk te ondersteunen. In 2012 is al onderzoek gedaan naar de kwaliteit van leven in woonservice gebieden. Dit onderzoek is ook uitgevoerd in Helden en Panningen. Sindsdien is er veel veranderd, onder andere het nationaal beleid. Om deze reden wil de Rijksuniversiteit Groningen dit onderzoek graag herhalen. De Rijksuniversiteit Groningen wil daarom onderzoeken hoe gebiedskenmerken en het aanbod van wonen, welzijn en zorg bijdragen aan de kwaliteit van leven van de populatie in Helden en Panningen. Zowel de gemeente als KBO als de Stichting Welzijnsbevordering Inwoners Helden steunen dit onderzoek.

Wat moet ik doen?

In deze envelop vindt u een uitgebreide vragenlijst waarmee de kwaliteit van leven in Helden en Panningen in kaart wordt gebracht. De vragen gaan over uw fysieke en mentale gezondheid, over uw tevredenheid met (lokale) diensten en over de kwaliteit van ondersteunende netwerken. Het invullen van de enquête kost ongeveer een half uur. Als u bereid bent om mee te doen aan het onderzoek, zou u dan deze vragenlijst voor 28 februari willen insturen? Dat kan met de bijgevoegde antwoordenvelop (een postzegel is niet nodig). Natuurlijk kunt u de enquête ook online invullen via internet. Indien u dit graag wilt, stuur dan uw e-mailadres naar ouderenheldenpanningen@rug.nl en dan krijgt u van ons de link toegestuurd.

Wat wordt er met mijn gegevens gedaan?

Wij willen u nogmaals benadrukken dat uw gegevens niet zullen worden gebruikt voor andere doeleinden en niet worden verstrekt aan derden. Alle informatie wordt vertrouwelijk verwerkt en na afloop van het onderzoek worden alle persoonlijke gegevens vernietigd. In de rapportage van het onderzoek wordt op geen enkele manier verwezen naar individuele personen, adressen of omstandigheden.

Wij willen u hartelijk danken voor uw deelname aan het onderzoek.

Met vriendelijke groet,

Esra van der Zaag

Meer weten?

Met vragen over het onderzoek kunt u contact opnemen met mevrouw E. van der Zaag via 06-55386856 of ouderenheldenpanningen@rug.nl. Aan het einde van het onderzoek is het mogelijk om het onderzoek en de resultaten opgestuurd te krijgen.

Hulp nodig bij het invullen?

De ouderenadviseurs van dorpsinfoloket Helden (06 3462 9983) of KBO infotelefoon Panningen (06 2807 3349) zijn graag bereid u te helpen.

Appendix 7: The follow-up questionnaire that was send to elderly in Helden en Panningen

VERVOLG ENQUÊTE HELDEN EN PANNINGEN: IN DEZE ENQUÊTE STAAN VRAGEN OVER WONEN, ZORG EN ONDERSTEUNING CENTRAAL. KIES BIJ ELKE VRAAG, HET ANTWOORD DAT HET MEEST BIJ UW SITUATIE PAST.

ALGEMENE VRAGEN

1a Vult u de vragenlijst zelf in of krijgt u hierbij hulp?

d. Ik vul de vragenlijst zelf in
e. Ik vul de vragenlijst zelf in, maar met hulp van een ander
f. De vragenlijst wordt in overleg met mij door een ander ingevuld

1b Als u geholpen wordt bij het invullen van de vragenlijst of de vragenlijst wordt door een ander ingevuld, wie is dit dan?

g. Partner
h. Familielid
i. Zorgverlener
j. Ouderen Adviseur KBO
k. Niet van toepassing
l. Overig

2 Wanneer bent u geboren? (Jaartal)

……..

3 Bent u een man of een vrouw?

c. Man
d. Vrouw

4a In welk land bent u geboren?

c. Nederland
d. Ander land, namelijk:……..

4b In welk land is uw vader geboren?

c. Nederland
d. Ander land, namelijk:……..

4c In welk land is uw moeder geboren?

c. Nederland
d. Ander land, namelijk:……..

5 Hoe woont en leeft u?

i. Zelfstandig met anderen
j. Zelfstandig zonder anderen
k. Met partner in een aanleunwoning*
l. Alleen in een aanleunwoning*
m. Met partner in een verzorgingshuis
n. Alleen in een verzorgingshuis
o. Alleen in een verpleeghuis
p. Anders, namelijk:……

* *Een aanleunwoning is een (huur)woning voor ouderen. U woont er zelfstandig, maar u kunt gebruik maken van de zorg en de service van een verzorgingshuis of verpleeghuis dicht in de buurt.*

UW WELBEVINDEN

6 Heeft u een indicatie voor zorg en ondersteuning:

f. Ik heb geen indicatie voor zorg en ondersteuning
g. Ik heb een indicatie op basis van somatische problematiek
h. Ik heb een indicatie op basis van regieproblematiek
i. Ik heb een indicatie op basis van zorg met verblijf (ZMV)
j. Ik weet niet of ik een indicatie heb voor zorg en ondersteuning

7 Ervaart u beperkingen door lichamelijke klachten?

e. Ik ervaar geen beperkingen
f. Ik ervaar minder dan drie maanden beperkingen
g. Ik ervaar langer dan drie maanden beperkingen
h. Ik heb de afgelopen vijf jaar meerdere, kortere perioden met beperkingen ervaren

8 In hoeverre worden uw dagelijkse activiteiten beperkt door lichamelijke klachten en beperkingen?

e. Niet
f. Enigszins
g. Behoorlijk
h. Ernstig

9 Hoe mobiel bent u?

f. Ik heb geen hulp of hulpmiddelen nodig
g. Ik gebruik alleen een wandelstok
h. Ik gebruik een rollator of looprek en/of krijg wat hulp bij dagelijkse activiteiten
i. Ik krijg veel hulp bij dagelijkse activiteiten en/of maak soms gebruik van een rolstoel en hoog/laag bed
j. Ik ben afhankelijk van verzorging en/of gebruik een elektrische rolstoel en tillift

10 Ervaart u problemen in het dagelijks leven, omdat u slecht ter been bent?

d. Nee, geen problemen
e. Ja, enige problemen
f. Ja, veel problemen

11 Ervaart u problemen in het dagelijks leven door slecht zien?

d. Nee, geen problemen
e. Ja, enige problemen
f. Ja, veel problemen

12 Ervaart u problemen in het dagelijks leven door slecht horen?

d. Nee, geen problemen
e. Ja, enige problemen
f. Ja, veel problemen

13 Ervaart u problemen met uw geheugen?

d. Nee
e. Soms
f. Ja

14 Heeft u wel eens last gehad van psychische problemen, zoals zich gespannen voelen, angst, somberheid of in de war zijn?

e. Nee, bijna nooit
f. Wel eens, maar dit was niet van invloed op mijn dagelijkse leven
g. Wel eens en dit had een duidelijke invloed op mijn dagelijkse leven
h. Ja, mijn psychische klachten waren of zijn voortdurend van invloed op mijn dagelijks leven

15 Heeft u op dit moment psychische problemen, zoals zich gespannen voelen, angst, somberheid of in de war zijn?

e. Nee, geen psychische problemen
f. Ja, één of enkele psychische problemen
g. Ja, veel psychische problemen
h. Ja, heel veel psychische problemen

16 Wat doet u zoal in een week?

e. Ik heb meerdere activiteiten per week
f. Ik heb elke week een andere activiteit
g. Ik heb bijna altijd dezelfde activiteit
h. Ik heb (bijna) geen activiteiten waarmee ik in contact kom met andere mensen

17 Kunt u zonder enige hulp van iemand anders zelfstandig de volgende activiteiten uitvoeren, eventueel met behulp van stok, rollator, rolstoel?

Boodschappen doen	☐ Ja	☐ Nee
Buitenshuis verplaatsen	☐ Ja	☐ Nee
Aan- en uitkleden	☐ Ja	☐ Nee
Naar het toilet gaan	☐ Ja	☐ Nee

18 Hoe vaak hebben uw lichamelijke gezondheid of emotionele problemen in de afgelopen 4 weken uw sociale activiteiten belemmerd?

f. Nooit
g. Zelden
h. Soms
i. Meestal
j. Voortdurend

SOCIALE CONTACTEN

19 Hoe is uw contact met andere mensen?

d. Ik heb genoeg contact met andere mensen
e. Ik heb wel eens contact met andere mensen.
f. Het lukt me niet contacten en vriendschappen te sluiten of te onderhouden

20 Hoe vaak heeft u contact met de volgende groepen mensen:

	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder dan één keer per maand	Nooit
Uw familie	☐	☐	☐	☐	☐
Uw directe buren	☐	☐	☐	☐	☐

Andere buurtbewoners	☐	☐	☐	☐	☐
Uw vrienden	☐	☐	☐	☐	☐
Clubs/verenigingen	☐	☐	☐	☐	☐

21 Hoe tevreden bent u over dit contact met de volgende groepen mensen:

	Zeer tevreden	Tevreden	Neutraal	Ontevreden	Zeer ontevreden
Uw familie	☐	☐	☐	☐	☐
Uw directe buren	☐	☐	☐	☐	☐
Andere buurtbewoners	☐	☐	☐	☐	☐
Uw vrienden	☐	☐	☐	☐	☐
Clubs/verenigingen	☐	☐	☐	☐	☐

22 Als u op het werk, bij familie, een vereniging of de kerk bent, heeft u dan het gevoel dat u erbij hoort?

e. Altijd
f. Vaak
g. Soms
h. Nooit

23 Hebben de mensen aandacht voor u?

e. Altijd
f. Vaak
g. Soms
h. Nooit

24 Wil men u helpen als u een probleem heeft?

e. Altijd
f. Vaak
g. Soms
h. Nooit

WONEN EN SOCIAAL KLIMAAT

25 Is uw thuissituatie naar tevredenheid?

e. Er zijn nu geen veranderingen nodig, want ik kan mijzelf redden
f. Er zijn nu geen veranderingen nodig, want ik heb voldoende steun en zorg van anderen of ik verblijf in een verpleeg- of verzorgingshuis
g. Er zijn veranderingen in de woonsituatie nodig, maar dat hoeft niet gelijk
h. Er zijn onmiddellijk veranderingen in de woonsituatie nodig

26 Verwacht u dat er in de komende 6 maanden iets aan uw (woon)situatie veranderd moet worden?

f. Er hoeft in de komende 6 maanden niets veranderd te worden aan mijn (woon)situatie
g. Ik kan naar huis of ik kan thuis blijven, maar heb in de komende 6 maanden thuiszorg nodig
h. Ik moet in de komende 6 maanden tijdelijk naar een andere situatie
i. Ik moet binnen 6 maanden definitief verhuizen naar een andere woonvorm
j. Ik denk niet na over de toekomst, ik leef van dag tot dag

27 Wat voor type woning heeft u?

f. Appartement zonder lift
g. Appartement met lift
h. Rijtjeswoning
i. Twee onder één kap woning
j. Vrijstaande woning

28 Heeft u een koop- of huurwoning?

c. Koopwoning
d. Huurwoning

29 Is uw woning voor u geschikt om oud in te worden?

d. Ja
e. Nee, er zijn (meer) aanpassingen nodig
f. Nee, er zal een verhuizing nodig zijn

30 Is het mogelijk dat iemand uw woning kan bereiken vanaf de straat met:

e. Een rolstoel
f. Na enkele aanpassingen met een rolstoel
g. Een rollator
h. Geen van bovenstaande opties

31 Is het mogelijk dat iemand in uw woning alle belangrijke ruimtes kan bereiken met:

e. Een rolstoel
f. Na enkele aanpassingen met een rolstoel
g. Een rollator
h. Geen van bovenstaande opties

32a Is uw woning speciaal bestemd voor ouderen/aangepast voor ouderen?

c. Ja
d. Nee

32b Zo ja, aan welke voorwaarden moest u voldoen om in uw woning te mogen wonen?

e. Gezondheids- en/of medische indicatie
f. Leeftijdsgrens
g. Beide
h. Geen voorwaarden

33 Bent u tevreden met de aanpassingen aan uw woning?

c. Ja
d. Nee

34 Welke hulpmiddelen zijn er in uw woning aangebracht? (Meerdere antwoorden mogelijk)

k. Technologische hulpmiddelen/domotica
l. Personenalarmsysteem
m. Traplift
n. Douchezitje/douchesteunen/badplank
o. Extra handgrepen/beugels
p. Opvuldrempel/drempeloprit
q. Bedverhogers/bedstangen
r. Toiletstoel/toiletverhoger
s. Anders, namelijk:……
t. Geen van bovenstaande

35 Sinds welk jaar woont u in uw huidige woning? (Jaartal)

…….

36 Denkt u dat uw huidige buurt geschikt is om voor altijd te blijven wonen?

d. Ja
e. Nee
f. Weet ik niet

37 Zijn voor u de voorzieningen in de wijk goed bereikbaar?

f. Ja
g. Ja, de meeste wel
h. Niet allemaal
i. Nee, de meeste niet
j. Nee

38 Voelt u zich overdag wel eens onveilig thuis?

e. Nee
f. Zelden
g. Ja, soms
h. Ja, vaak

39 Voelt u zich overdag wel eens onveilig op straat?

e. Nee
f. Zelden
g. Ja, soms
h. Ja, vaak

40 Voelt u zich ’s avonds of 's nachts wel eens onveilig thuis?

e. Nee
f. Zelden
g. Ja, soms
h. Ja, vaak

41 Voelt u zich ’s avonds of 's nachts wel eens onveilig op straat?

e. Nee
f. Zelden
g. Ja, soms
h. Ja, vaak

42 Gaat u alleen de deur uit?

e. Ja
f. Ja, maar alleen overdag
g. Nee, altijd met begeleiding
h. Nee, ik ga nooit de deur uit

43 Hoe beoordeelt u de verkeersveiligheid in uw buurt?

d. Goed
e. Voldoende, er zijn een paar verbeteringen nodig
f. Onvoldoende, er zijn veel verbeteringen nodig

44 Wat zou verbeterd kunnen worden?

f. Oversteekmogelijkheden

g. Gedrag automobilisten
h. Gedrag fietsers/brommers/scooters
i. Obstakels/oneffenheden in routes die u gebruikt
j. Onderhoud op routes die u gebruikt

45 Hoe tevreden bent u met uw woning?

f. Helemaal tevreden
g. Tevreden
h. Niet tevreden, niet ontevreden
i. Ontevreden
j. Helemaal ontevreden

46 Overweegt u wel eens om te verhuizen?

e. Ja, naar een verzorgingshuis/verpleeghuis
f. Ja, naar een ouderenwoning
g. Ja, anders:……
h. Nee

47 Als u zou verhuizen, waarmee heeft dat dan te maken?

k. Ik wil groter wonen
l. Ik wil kleiner wonen
m. Ik wil mooier / beter wonen
n. Omstandigheden in het huishouden (samenwonen, scheiding, overlijden)
o. Woning is te duur
p. Vanwege gezondheid / invaliditeit / leeftijd
q. De buurt bevalt niet (meer)
r. Ik wil dichter bij familie / vrienden wonen
s. Anders, namelijk:……
t. Niet van toepassing / ga niet verhuizen

48 Zijn er volgens u, indien u zal moeten verhuizen vanwege uw gezondheid, genoeg mogelijkheden binnen uw buurt of dorp?

g. Er zijn (genoeg) ouderenwoningen beschikbaar en er is een verzorgingshuis/verpleeghuis
h. Er is alleen een verzorgingshuis/verpleeghuis
i. Er zijn alleen (genoeg) ouderenwoningen beschikbaar
j. Er zijn geen (of niet genoeg) ouderenwoningen beschikbaar en er is geen verzorgingshuis/verpleeghuis
k. Daar heb ik me niet in verdiept, want ik wil in dat geval toch niet in deze buurt blijven wonen
l. Dat weet ik niet

49 Staat u ingeschreven bij een woningcorporatie of staat u op de wachtlijst voor een verzorgingshuis?

f. Ja, sinds een maand of minder
g. Ja, al een paar maanden
h. Ja, al een half jaar tot een jaar
i. Ja, al meer dan een jaar
j. Nee

50 Hoe verbonden voelt u zich met uw buurt?

f. Zeer sterk
g. Sterk

h. Niet sterk, niet zwak
i. Zwak
j. Zeer zwak

ZORG

51 Hoe vaak bent u de laatste vijf jaar in aanraking geweest met de gezondheidszorg? (Meerdere antwoorden mogelijk)

i. Ik heb minder dan vier keer per jaar contact gehad met een huisarts
j. Ik heb vier keer per jaar of vaker contact gehad met een huisarts
k. Ik heb één of meerdere keren contact gehad met dezelfde specialist
l. Ik heb contact gehad met meerdere specialisten
m. Ik ben in het ziekenhuis opgenomen geweest
n. Ik ben meerdere keren opgenomen geweest in het ziekenhuis
o. Ik heb langer dan 7 dagen op een intensive care afdeling gelegen
p. Ik ben langer dan 6 weken opgenomen geweest in een revalidatiecentrum of verpleeghuis

52 Bij wie bent u onder behandeling of van wie ontvangt u zorg? (Meerdere antwoorden mogelijk)

o. Huisarts
p. Verpleeghuisarts
q. Een specialist
r. Meerdere specialisten voor lichamelijke klachten
s. Specialist voor psychische klachten
t. Psycholoog
u. Diëtist
v. Maatschappelijk werker
w. Fysiotherapeut
x. Logopedist
y. Verpleegkundige/verzorgende thuiszorg
z. Verpleegkundige in ziekenhuis
aa. Ik ontvang geen behandeling of zorg
bb. Anders, namelijk:……..

53 Krijgt u voldoende en de juiste zorg van uw zorgverleners en behandelaars?

g. Ik heb geen zorg nodig
h. Ik krijg alle zorg die ik nodig heb
i. Ik krijg geen zorg, maar heb dat wel nodig
j. Ik heb meer nodig van de zorg die ik nu krijg
k. Ik heb een ander soort zorg nodig
l. Ik heb veel meer of hele andere zorg nodig

54 In hoeverre werken de zorgverleners en behandelaars volgens u goed met elkaar samen?

f. Ik krijg geen zorg of alleen zorg van één zorgverlener of behandelaar
g. De zorgverleners en behandelaars werken goed met elkaar samen
h. De zorgverleners en behandelaars werken samen, maar af en toe is meer overleg tussen hen wenselijk
i. De zorgverleners en behandelaars werken niet zo goed samen en daardoor gaat er wel eens iets mis
j. De zorgverleners en behandelaars werken langs elkaar heen

55 Verwacht u dat u in de komende 6 maanden meer of minder hulp nodig heeft?

g. Over 6 maanden verwacht ik geen hulp nodig te hebben
h. Over 6 maanden verwacht ik dat de hulp die ik krijg gelijk is gebleven
i. Over 6 maanden verwacht ik minder hulp nodig te hebben
j. Over 6 maanden verwacht ik meer hulp nodig te hebben
k. Over 6 maanden verwacht ik veel meer hulp nodig te hebben
l. Ik denk niet na over de toekomst, ik leef van dag tot dag

56 Wat zijn uw ervaringen met zorgverleners of behandelaars in de afgelopen 5 jaar?

e. Ik heb nooit problemen ervaren met zorgverleners of behandelaars
f. Ik of mijn naasten hebben negatieve ervaringen met een zorgverlener of behandelaar gehad
g. Vanwege een negatieve ervaring met een zorgverlener of behandelaar ben ik wel eens naar een andere zorgverlener of behandelaar gegaan
h. Ik heb regelmatig conflicten met zorgverleners of behandelaars of ben wel eens tegen mijn zin opgenomen geweest

57 Welke WMO-voorzieningen gebruikt u:

h. Huishoudelijke hulp
i. Begeleiding Individueel
j. Dagbesteding
k. Vervoer Omnibuzz
l. Vervoersvoorzieningen zoals scootmobiel, elektrische rolstoel
m. Logeren
n. Anders, namelijk:……
o. Ik maak geen gebruik van WMO-voorzieningen.

58 Hoe vaak krijgt u momenteel mantelzorg?

g. Nooit
h. Minder dan één keer per week
i. Eén keer per week
j. Meer dan één keer per week
k. Eén keer per dag
l. Meer dan één keer per dag

59 Hoe vaak komt momenteel een vrijwilliger langs?

g. Nooit
h. Minder dan één keer per week
i. Eén keer per week
j. Meer dan één keer per week
k. Eén keer per dag
l. Meer dan één keer per dag

60 Waaruit bestaat deze mantelzorg/ vrijwilligerswerk?

	Mantelzorger(s)	Vrijwilliger(s)
Hulp in de huishouding	JA / NEE	JA / NEE
Klaarmaken van de warme maaltijden	JA / NEE	JA / NEE
Hulp bij persoonlijke verzorging	JA / NEE	JA / NEE
Hulp bij medische verzorging	JA / NEE	JA / NEE
Gezelschap, troost, afleiding, goed gesprek	JA / NEE	JA / NEE
Begeleiding en/of vervoer	JA / NEE	JA / NEE

Regeling geldzaken en/of andere administratie	JA / NEE	JA / NEE
Klusjes in huis	JA / NEE	JA / NEE
Andere zaken, namelijk:	……	……
	……	……

61 Verricht u zelf vrijwilligerswerk en/of mantelzorg?

e. Ja, beide
f. Ja, alleen vrijwilligerswerk
g. Ja, alleen mantelzorg
h. Nee

62 Hoe ervaart u de belasting als mantelzorger?

e. Prima te doen
f. Soms wel zwaar
g. Regelmatig zwaar
h. Te zwaar

63 Heeft u thuiszorg?

c. Nee
d. Ja, namelijk … uur per week

QUALITY OF LIFE EN VOORZIENINGEN

64 Waar beleeft u plezier aan? (Meerdere antwoorden mogelijk)

k. Genieten van eten en drinken
l. Lekker slapen en rusten
m. Plezierige relaties en contacten
n. Actief zijn
o. Jezelf redden
p. Jezelf zijn
q. Je gezond voelen van lichaam en geest
r. Plezierig wonen
s. Ik vind geen van deze gebieden belangrijk
t. Anders, namelijk:…….

65 Hoe tevreden bent u over de volgende aspecten:

	ja, ik ben hier tevreden mee	nee, het kan beter
Genieten van eten en drinken	☐	☐
Lekker slapen en rusten	☐	☐
Plezierige relaties en contacten	☐	☐
Actief zijn	☐	☐
Jezelf redden	☐	☐
Jezelf zijn	☐	☐
Je gezond voelen van lichaam en geest	☐	☐
Plezierig wonen	☐	☐

66 Neemt u (actief) deel aan de volgende activiteiten in uw buurt? (Meerdere antwoorden mogelijk)

h. Ik doe vrijwilligerswerk in mijn buurt

i. Ik neem deel aan een buurt/wijkgroep
j. Ik ben lid van een club/vereniging in de wijk
k. Ik ben lid van een religieuze gemeenschap
l. Ik heb regelmatig contact met buurtbewoners
m. Anders, namelijk……..
n. Geen van bovenstaande activiteiten

67 Hoe denkt u over de volgende stellingen:

	Zeer eens	Eens	Neutraal	Oneens	Zeer oneens
Ik voel mij medeverantwoordelijk voor de leefbaarheid in de buurt	☐	☐	☐	☐	☐
In de buurt gaat men op een prettige manier met elkaar om	☐	☐	☐	☐	☐
Ik woon in een gezellige buurt waar mensen elkaar helpen en samen dingen doen	☐	☐	☐	☐	☐
Mensen kennen elkaar nauwelijks in deze buurt	☐	☐	☐	☐	☐
Ik ben tevreden met de bevolkingssamenstelling in de buurt	☐	☐	☐	☐	☐

68 Hoe tevreden bent u over de volgende voorzieningen:

	Zeer tevreden	Tevreden	Neutraal	Ontevreden	Zeer ontevreden
Supermarkt	☐	☐	☐	☐	☐
Huisarts	☐	☐	☐	☐	☐
Apotheek	☐	☐	☐	☐	☐
Openbaar vervoer	☐	☐	☐	☐	☐
Ontmoetingsplekken	☐	☐	☐	☐	☐
Groenvoorzieningen	☐	☐	☐	☐	☐
Sportverenigingen	☐	☐	☐	☐	☐
Buurtinitiatieven	☐	☐	☐	☐	☐

69 U woont zelfstandig, maakt u wel eens gebruik van de volgende diensten?

j. Hulp bij dagelijkse handelingen/verzorging (aan- en uitkleden, wassen e.d.)
k. Huishoudelijke hulp
l. Verpleegkundige hulp
m. Hulpmiddel en/of aanpassingen in huis (rollator, rolstoel, scootmobiel, traplift, e.d.)
n. Hulp bij administratie en/of financiën
o. Ondersteuning bij het uitbouwen en onderhouden van sociale contacten
p. Ondersteuning bij het vinden/doen van activiteiten (bijvoorbeeld hobby's of sport)
q. Ik heb niets nodig
r. Anders, namelijk:……

70 Heeft u behoefte aan één of meer van de hierboven genoemde diensten? Zo ja, welke (meerdere antwoorden mogelijk):

……
……

71: Hoe vaak maakt u gebruik van volgende voorzieningen?

Gemeenschapshuis Kerkeböske, Helden	Dagelijks	Eén of meer keer per week	Eén of meer keer per maand	Minder vaak	Nooit	Nooit van gehoord

Dorpsdagvoorziening de Koeberg	☐	☐	☐	☐	☐	☐
Activiteiten KBO Helden	☐	☐	☐	☐	☐	☐
Eetpunt ‘’De Dörper nachtegaal’’	☐	☐	☐	☐	☐	☐
Infoloket/ouderenadviseurs KBO	☐	☐	☐	☐	☐	☐
Gemeenschapshuis in Kepèl, Panningen	Dagelijks	Eén of meer keer per week	Eén of meer keer per maand	Minder vaak	Nooit	Nooit van gehoord
Dorpsdagvoorziening	☐	☐	☐	☐	☐	☐
Activiteiten KBO	☐	☐	☐	☐	☐	☐
Overige activiteiten	Dagelijks	Eén of meer keer per week	Eén of meer keer per maand	Minder vaak	Nooit	Nooit van gehoord
Open Eettafel	☐	☐	☐	☐	☐	☐
Infotelefoon/Ouderenadviseurs KBO	☐	☐	☐	☐	☐	☐
Overig	Dagelijks	Eén of meer keer per week	Eén of meer keer per maand	Minder vaak	Nooit	Nooit van gehoord
Seniorenvervoer H.E.P.	☐	☐	☐	☐	☐	☐
WegWijzer Vorkmeer	☐	☐	☐	☐	☐	☐
Maaltijdservice Tafeltje Dekje	☐	☐	☐	☐	☐	☐
Huis van Morgen	☐	☐	☐	☐	☐	☐

72 Wat vindt u van de kwaliteit van de woonomgeving in uw buurt? (Waarbij 1 zeer slecht is en 10 zeer goed is)

1	2	3	4	5	6	7	8	9	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Dit was het einde van de vragenlijst. hartelijk dank voor uw medewerking.

Graag zouden we u willen uitnodigen voor een vervolggesprek. Het vervolggesprek zal dieper ingaan op de punten die in deze vragenlijst aan bod zijn gekomen. In deze vragenlijst stonden vooral gebiedskenmerken centraal. In het vervolggesprek zal het verband tussen persoonskenmerken en gebiedskenmerken meer onderzocht worden.

Bent u bereid om mee te werken aan een vervolggesprek?

d. Ja, mijn telefoonnummer is:……..
e. Ja, mijn e-mailadres is:……
f. Nee

Appendix 8: An overview of the response rates of the follow-up questionnaire

Question	Answers	Total response rate	Response rate for the Berflo Es	Response rate for Helden en Panningen
1a Vult u de vragenlijst zelf in of krijgt u hierbij hulp?	Ik vul de vragenlijst zelf in	85,9%	86,6%	85,8%
	Ik vul de vragenlijst zelf in, maar met hulp van een ander	10,0%	11,0%	9,8%
	De vragenlijst wordt in overleg met mij door een ander ingevuld	4,1%	2,4%	4,4%
1b Als u geholpen wordt bij het invullen van de vragenlijst of de vragenlijst wordt door een ander ingevuld, wie is dit dan?	Partner	8.8%	7,3%	9,1%
	Familielid	4,5%	3,7%	4,7%
	Zorgverlener	0,0%	0,0%	0,0%
	Ouderen Adviseur KBO	0,0%	0,0%	0,0%
	Niet van toepassing	86,7%	89,0%	86,2%
	Overig	0,0%	0,0%	0,0%
2 Wanneer bent u geboren?	Jaartal	Data onbruikbaar	Data onbruikbaar	Data onbruikbaar
3 Bent u een man of een vrouw?	Man	50,1%	48,8%	50,3%
	Vrouw	49,9%	51,2%	49,7%
4 In welk land bent u geboren?	Nederland;	96,7%	96,3%	96,8%
	Ander land, namelijk	3,3%	3,7%	3,2%
4b In welk land is uw vader geboren?	Nederland;	95,2%	95,1%	95,2%
	Ander land, namelijk	4,8%	4,9%	4,8%
4c In welk land is uw moeder geboren?	Nederland;	94,4%	92,7%	94,7%
	Ander land, namelijk	5,6%	7,3%	5,1%
5 Hoe woont en leeft u?	zelfstandig met anderen	67,2%	47,6%	70,9%
	zelfstandig zonder anderen	29,7%	47,6%	26,3%
	met partner in een aanleunwoning of zorgwoning	1,7%	3,7%	1,4%
	alleen in een aanleunwoning of zorgwoning	0,2%	0,0%	0,2%
	met partner in een verzorgingshuis	0,0%	0,0%	0,0%
	alleen in een verzorgingshuis	0,0%	0,0%	0,0%
	alleen in een verpleeghuis	0,0%	0,0%	0,0%
	anders, nl	1,2%	1,2%	1,2%
6 Heeft u een indicatie voor zorg en ondersteuning?	Ik heb geen indicatie voor zorg en ondersteuning	90,5%	89,3%	90,7%
	Ik heb een indicatie op basis van somatische problematiek	2,1%	5,3%	1.5%
	Ik heb een indicatie op basis van regieproblematiek	0,6%	0,0%	0,7%
	Ik heb een indicatie op basis van zorg met verblijf (ZMV)	1,0%	0,0%	1,2%
	Ik weet niet of ik een indicatie heb voor zorg en ondersteuning	5,8%	5,3%	5,9%
7 Ervaart u beperkingen door lichamelijke klachten?	Ik ervaar geen beperkingen	65,3%	55,7%	67,1%
	Ik ervaar minder dan drie maanden beperkingen	3,2%	6,3%	2,6%
	Ik ervaar langer dan drie maanden beperkingen	11,0%	12,7%	10,7%
	Ik heb de afgelopen vijf jaar meerdere, kortere perioden met beperkingen ervaren	20,6%	25,3%	19,7%

8 In hoeverre worden uw dagelijkse activiteiten beperkt door lichamelijke klachten en beperkingen?	Niet Enigszins Behoorlijk Ernstig	60,1% 28,3% 10,0% 1,6%	45,7% 43,2% 11,1% 0,0%	62,9% 25,5% 9,8% 1,9%
9 Hoe mobiel bent u?	Ik heb geen hulp of hulpmiddelen nodig Ik gebruik alleen een wandelstok Ik gebruik een rollator of looprek en/of krijg wat hulp bij dagelijkse activiteiten Ik krijg veel hulp bij dagelijkse activiteiten en/of maak soms gebruik van een rolstoel en hoog/laag bed Ik ben afhankelijk van verzorging en/of gebruik een elektrische rolstoel en tillift	82,7% 5,6% 9,7% 1,4% 0,6%	75,0% 5,0% 17,5% 1,3% 1,3%	84,2% 5,7% 8,3% 1,4% 0,5%
10 Ervaart u problemen in het dagelijks leven, omdat u slecht ter been bent?	ja, veel problemen ja, enige problemen nee, geen problemen	3,9% 19,6% 76,4%	1,2% 32,1% 66,7%	4,4% 17,3% 78,3%
11 Ervaart u problemen in het dagelijks leven door slecht zien?	ja, veel problemen ja, enige problemen nee, geen problemen	2,3% 7,8% 89,8%	1,2% 13,6% 85,2%	2,6% 6,7% 90,7%
12 Ervaart u problemen in het dagelijks leven door slecht horen?	ja, veel problemen ja, enige problemen nee, geen problemen	2,4% 21,1% 76,6%	2,5% 27,5% 70,0%	2,3% 19,9% 77,8%
13 Ervaart u problemen met uw geheugen?	Nee Soms Ja	71,4% 25,8% 2,8%	65,4% 33,3% 1,2%	72,5% 24,4% 3,1%
14 Heeft u wel eens last gehad van psychische problemen, zoals zich gespannen voelen, angst, somberheid of in de war zijn?	nee, bijna nooit; wel eens, maar dit was niet van invloed op mijn dagelijkse leven; wel eens en dit had een duidelijke invloed op mijn dagelijkse leven; ja, mijn psychische klachten waren of zijn voortdurend van invloed op mijn dagelijks leven	77,3% 16,4% 5,7% 0,6%	74,1% 17,3% 7,4% 1,2%	77,9% 16,3% 5,3% 0,5%
15 Heeft u op dit moment psychische problemen, zoals zich gespannen voelen, angst, somberheid of in de war zijn?	nee, geen psychische problemen; ja, een of enkele psychische problemen; ja, veel psychische problemen; ja, heel veel psychische problemen	93,9% 5,7% 0,4% 0,0%	90,1% 9,9% 0,0% 0,0%	94,6% 4,9% 0,5% 0,0%
16 Wat doet u zoal in een week?	ik heb meerdere activiteiten per week; ik heb elke week een andere activiteit; ik heb bijna altijd dezelfde activiteit; ik heb (bijna) geen activiteiten waarmee ik in contact kom met andere mensen	74,8% 2,0% 15,2% 8,1%	59,3% 8,6% 16,0% 16,0%	77,8% 0,7% 15,0% 6,6%
17 Kunt u zonder enige hulp van iemand anders zelfstandig de volgende activiteiten uitvoeren, eventueel met behulp				

van stok, rollator, rolstoel?				
Boodschappen doen	Ja	94,1%	90,2%	94,9%
	Nee	5,9%	9.8%	5,1%
17 Buitenshuis verplaatsen	Ja	94,3%	91,5%	94,8%
	Nee	5,7%	8,5%	5,2%
17 Aan- en uitkleden	Ja	97,0%	98,8%	96,7%
	Nee	3,0%	1,2%	3,3%
17 Naar het toilet gaan	Ja	98,4%	100,0%	98,1%
	Nee	1,6%	0,0%	1,9%
18 Hoe vaak hebben uw lichamelijke gezondheid of emotionele problemen in de afgelopen 4 weken uw sociale activiteiten belemmerd?	Nooit	63,2%	45,1%	66,6%
	Zelden	19,3%	31,7%	16,9%
	Soms	14,6%	23,2%	13,0%
	Meestal	2,1%	0,0%	2,6%
	Voortdurend	0,8%	0,0%	0,9%
19 Hoe is uw contact met andere mensen?	ik heb genoeg contact met andere mensen;	85,9%	78,2%	87,4%
	ik heb wel contact met andere mensen;	12,2%	20,5%	10,7%
	het lukt me niet contacten en vriendschappen te sluiten of te onderhouden	1,8%	1,3%	1,9%
20 Hoe vaak heeft u contact met familie?	dagelijks;	15,3%	19,5%	14,5%
	een of meer keer per week;	54,5%	51,2%	55,1%
	een of meer keer per maand;	23,5%	24,4%	23,4%
	minder dan een keer per maand;	5,5%	2,4%	6,1%
	nooit	1,2%	2,4%	0,9%
20 Hoe vaak heeft u contact met directe buren?	dagelijks;	8,1%	11,4%	7,5%
	een of meer keer per week;	48,5%	44,3%	49,3%
	een of meer keer per maand;	28,0%	25,3%	28,5%
	minder dan een keer per maand;	10,1%	7,6%	10,6%
	nooit	5,3%	11,4%	4,1%
20 Hoe vaak heeft u contact met andere buurtbewoners?	dagelijks;	2,8%	4,2%	2,5%
	een of meer keer per week;	31,5%	22,5%	33,1%
	een of meer keer per maand;	37,3%	40,8%	36,6%
	minder dan een keer per maand;	22,6%	22,5%	22,6%
	nooit	5,8%	9,9%	5,1%
20 Hoe vaak heeft u contact met vrienden?	dagelijks;	4,6%	9,0%	3,8%
	een of meer keer per week;	43,6%	29,5%	46,4%
	een of meer keer per maand;	36,1%	37,2%	35,8%
	minder dan een keer per maand;	10,7%	15,4%	9,8%
	nooit	5,0%	9,0%	4,3%
20 Hoe vaak heeft u contact met clubs/verenigingen?	dagelijks;	3,0%	4,1%	2,8%
	een of meer keer per week;	55,5%	37,8%	58,8%
	een of meer keer per maand;	15,9%	25,7%	14,1%
	minder dan een keer per maand;	7,6%	6,8%	7,8%
	nooit	18,0%	25,7%	16,6%
21 Hoe tevreden bent u over het contact met familie?	zeer tevreden;	43,2%	48,8%	42,1%
	tevreden;	46,9%	41,5%	47,9%
	niet tevreden, niet ontevreden;	7,8%	7,3%	7,9%
	ontevreden;	1,4%	0,0%	1,6%

	zeer ontevreden	0,8%	2,4%	0,5%
21 Hoe tevreden bent u over het contact met directe buren?	zeer tevreden; tevreden; niet tevreden, niet ontevreden; ontevreden; zeer ontevreden	22,9% 55,3% 17,9% 2,8% 1,2%	21,3% 46,3% 26,3% 6,3% 0,0%	23,2% 57,0% 16,3% 2,1% 1,4%
21 Hoe tevreden bent u over het contact met andere buurtbewoners?	zeer tevreden; tevreden; niet tevreden, niet ontevreden; ontevreden; zeer ontevreden	11,7% 53,0% 32,6% 1,4% 1,2%	11,0% 37,0% 50,7% 1,4% 0,0%	11,8% 55,8% 29,5% 1,4% 1,4%
21 Hoe tevreden bent u over het contact met vrienden?	zeer tevreden; tevreden; niet tevreden, niet ontevreden; ontevreden; zeer ontevreden	25,3% 57,6% 15,1% 1,0% 1,0%	25,6% 47,7% 25,6% 1,3% 0,0%	25,2% 59,6% 13,1% 1,0% 1,2%
21 Hoe tevreden bent u over het contact met clubs/verenigingen?	zeer tevreden; tevreden; niet tevreden, niet ontevreden; ontevreden; zeer ontevreden niet van toepassing	23,0% 52,9% 20,5% 1,5% 2,1%	19,2% 41,0% 34,6% 5,1% 0,0%	23,8% 55,2% 17,7% 0,8% 2,5%
22 Als u op het werk, bij familie, een vereniging of de kerk bent, heeft u dan het gevoel dat u erbij hoort?	nooit; soms; vaak; altijd	1,4% 6,5% 25,0% 67,1%	2,5% 12,7% 25,3% 59,5%	1,2% 5,4% 25,0% 68,5%
23 Hebben de mensen aandacht voor u?	nooit; soms; vaak; altijd	0,6% 10,6% 45,7% 43,1%	0,0% 15,0% 46,3% 38,8%	0,7% 9.8% 45,6% 44,0%
24 Wil men u helpen als u een probleem heeft?	nooit; soms; vaak; altijd	1,0% 11,2% 23,7% 64,1%	1,3% 14,1% 25,6% 59,0%	0,9% 10,6% 23,3% 65,1%
25 Is uw thuissituatie naar tevredenheid?	er zijn nu geen veranderingen nodig want ik kan mijzelf redden; er zijn nu geen veranderingen nodig, want ik heb voldoende steun en zorg van anderen of ik verblijf in een verpleeg- of verzorgingshuis; er zijn veranderingen in de woonsituatie nodig, maar dat hoeft niet gelijk; er zijn onmiddellijk veranderingen in de woonsituatie nodig	87,8% 3,7% 8,0% 0,4%	84,0% 3,7% 11,1% 1,2%	88,6% 3,7% 7,5% 0,2%
26 Verwacht u dat er in de komende 6 maanden iets aan uw (woon)situatie veranderd moet worden?	er hoeft in de komende 6 maanden niets veranderd te worden aan mijn (woon)situatie; ik kan naar huis of kan thuis blijven, maar heb in de komende 6 maanden thuiszorg nodig; ik moet in de komende 6 maanden tijdelijk naar een andere situatie;	91,2% 0,8% 0,6% 0,2%	90,2% 0,0% 0,0% 1,2%	91,4% 0,9% 0,7% 0,0%

	ik moet binnen 6 maanden definitief verhuizen naar een andere woonvorm; ik denk niet na over de toekomst, ik leef van dag tot dag	7,3%	8,5%	7,0%
27 Wat voor type woning heeft u?	Appartement zonder lift Appartement met lift Rijtjeswoning Twee onder één kap woning Vrijstaande woning	4,7% 19,0% 11,3% 29,3% 35,7%	7,3% 41,5% 7,3% 30,5% 13,4%	4,2% 14,8% 12,0% 29,1% 40,0%
28 Heeft u een koop- of huurwoning?	Koopwoning Huurwoning	70,0% 30,0%	49,4% 50,6%	73,9% 26,1%
29 Is uw woning voor u geschikt om oud in te worden?	Ja; Nee, er zijn (meer) aanpassingen nodig; Nee, er zal een verhuizing nodig zijn	64,8% 30,6% 4,5%	67,9% 27,2% 4,9%	64,3% 31,3% 4,4%
30 Is het mogelijk dat iemand uw woning kan bereiken vanaf de straat met:	een rolstoel; na enkele aanpassingen met een rolstoel; een rollator; geen van bovenstaande opties	69,7% 16,9% 8,7% 4,7%	71,3% 12,5% 13,8% 2,5%	69,4% 17,8% 7,7% 5,1%
31 Is het mogelijk dat iemand in uw woning alle belangrijke ruimtes kan bereiken met:	een rolstoel; na enkele aanpassingen met een rolstoel; een rollator; geen van bovenstaande opties	45,9% 20,0% 16,4% 17,8%	44,4% 13,6% 29,6% 12,3%	46,2% 21,2% 13,8% 18,8%
32a Is uw woning speciaal bestemd voor ouderen/aangepast voor ouderen?	Ja; Nee	23,9% 76,1%	32,9% 67,1%	22,2% 77,8%
32b Zo ja, aan welke voorwaarden moest u voldoen om in uw woning te mogen wonen?	Gezondheids- en/of medische indicatie; Leeftijdsgrens; Beide; Geen voorwaarden	3,7% 5,1% 3,7% 87,5%	6,1% 12,2% 2,4% 79,3%	3,2% 3,7% 3,9% 89,1%
33 Bent u tevreden met de aanpassingen aan uw woning?	Ja; Nee; Niet van toepassing	31,7% 2,8% 65,4%	48,7% 5,1% 46,2%	28,5% 2,4% 69,1%
34 Welke hulpmiddelen zijn er in uw woning aangebracht? (Meerdere antwoorden mogelijk)	Technologische hulpmiddelen/domotica Personenalarmsysteem Traplift Douchezitje/douchesteunen/badplank Extra handgrepen/beugels Opvuldrempel/drempeloprit Bedverhogers/bedstangen Toiletstoel/toiletverhoger Anders, namelijk Geen van bovenstaande	1,4% 5,0% 5,2% 20,02% 28,7% 3,5% 3,1% 7,6% 7,8% 60,3%	1,2% 12,2% 3,7% 31,7% 37,8% 7,3% 4,9% 14,6% 4,9% 44,4%	1,4% 3,7% 5,5% 18,0% 27,0% 2,8% 2,8% 6,2% 8,3% 63,3%
35 Sinds welk jaar woont u in uw huidige woning? (Jaartal)	Jaartal	Data onbruikbaar	Data onbruikbaar	Data onbruikbaar
36 Denkt u dat uw huidige buurt geschikt is	Ja Nee	68,5% 6,0%	69,5% 4,9%	68,4% 6,2%

om voor altijd te blijven wonen?	Weet ik niet	25,4%	25,6%	25,4%
37 Zijn voor u de voorzieningen in de wijk goed bereikbaar?	ja; ja, de meeste wel; niet allemaal; nee, de meeste niet; nee	61,4% 28,2% 6,8% 1,4% 2,0%	46,2% 37,2% 11,5% 1,3% 2,6%	64,2% 26,6% 5,9% 1,4% 1,9%
38 Voelt u zich overdag wel eens onveilig thuis?	ja, vaak; ja, soms; zelden; nee	0,2% 3,3% 8,9% 87,5%	0,0% 3,7% 9,9% 86,4%	0,2% 3,2% 8,8% 87,8%
39 Voelt u zich overdag wel eens onveilig op straat?	ja, vaak; ja, soms; zelden; nee	0,4% 4,7% 12,2% 82,7%	0,0% 9,8% 15,9% 74,4%	0,5% 3,7% 11,5% 84,3%
40 Voelt u zich ’s avonds of 's nachts wel eens onveilig thuis?	ja, vaak; ja, soms; zelden; nee	0,6% 4,5% 19,6% 75,3%	1,2% 9,9% 16,0% 72,8%	0,5% 3,5% 20,3% 75,8%
41 Voelt u zich ’s avonds of 's nachts wel eens onveilig op straat?	ja, vaak; ja, soms; zelden; nee	2,2% 14,4% 28,7% 54,3%	3,7% 23,5% 21,0% 50,6%	1,9% 12,6% 30,2% 55,0%
42 Gaat u alleen de deur uit?	ja; ja, maar alleen overdag; nee, altijd met begeleiding; nee, ik ga nooit de deur uit	79,4% 15,7% 3,9% 1,0%	70.7% 19,5% 8.5% 1,2%	81,1% 15,0% 3,0% 0,9%
43 Hoe beoordeelt u de verkeersveiligheid in uw buurt?	goed; voldoende, er zijn een paar verbeteringen nodig; onvoldoende, er zijn veel verbeteringen nodig	69,9% 25,0% 4,9%	57,3% 32,9% 9,8%	72,3% 23,5% 4,0%
44 Wat zou verbeterd kunnen worden?	oversteekmogelijkheden; gedrag automobilisten; gedrag fietsers/brommers/scooters; obstakels/oneffenheden in routes die u gebruikt; onderhoud op routes die u gebruikt;	6,6% 36,7% 24,6% 13,3% 8,2%	7,3% 36,6% 34,1% 19,5% 12,2%	6,5% 36,7% 22,8% 12,1% 7,4%
45 Hoe tevreden bent u met uw woning?	helemaal tevreden; tevreden; niet tevreden, niet ontevreden; ontevreden; helemaal ontevreden	49,1% 44,9% 5,6% 0,2% 0,2%	43,9% 52,4% 3,7% 0,0% 0,0%	50,1% 43,4% 6,0% 0,2% 0,2%
46 Overweegt u wel eens om te verhuizen?	ja, naar een verzorgingshuis/verpleeghuis; ja, naar een ouderenwoning; ja, anders; nee	2,3% 10,4% 11,7% 75,6%	3,7% 11,0% 3,7% 81,7%	2,1% 10,2% 13,3% 74,4%
47 Als u zou verhuizen, waarmee heeft dat dan te maken?	Ik wil groter wonen Ik wil kleiner wonen Ik wil mooier / beter wonen Omstandigheden in het huishouden (samenwonen, scheiding, overlijden) Woning is te duur Vanwege gezondheid / invaliditeit / leeftijd	0,4% 22,2% 3,3% 3,1% 2,3% 39,7%	0,0% 14,6% 0,0% 1,2% 4,9% 48,8%	0,5% 23,6% 3,9% 3,5% 1,9% 38,0%

	De buurt bevalt niet (meer)	1,4%	3,7%	0,9%
	Ik wil dichter bij familie / vrienden wonen	2,7%	2,4%	2,8%
	Anders, namelijk	1,9%	4,9%	1,4%
	Niet van toepassing / ga niet verhuizen	42,2%	35,4%	43,5%
48 Zijn er volgens u, indien u zal moeten verhuizen vanwege uw gezondheid, genoeg mogelijkheden binnen uw buurt of dorp?	er zijn (genoeg) ouderenwoningen beschikbaar en er is een verzorgingshuis/verpleeghuis;	12,6%	10,1%	13,1%
	er is alleen een verzorgingshuis/verpleeghuis;	7,1%	2,5%	8,0%
	er zijn alleen (genoeg) ouderenwoningen beschikbaar;	1,0%	1,3%	1,0%
	er zijn geen (of niet genoeg) ouderenwoningen beschikbaar en er is geen verzorgingshuis/verpleeghuis;	11,8%	6,3%	12,9%
	daar heb ik me niet in verdiept, want ik wil in dat geval toch niet in deze buurt blijven wonen;	10,4%	12,7%	10,0%
	dat weet ik niet	57,0%	67,1%	55,1%
49 Staat u ingeschreven bij een woningcorporatie of staat u op de wachtlijst voor een verzorgingshuis?	ja, een maand of minder;	0,6%	0,0%	0,7%
	ja, een paar maanden;	0,6%	0,0%	0,7%
	ja, een half jaar tot een jaar;	1,4%	1,2%	1,4%
	ja, meer dan een jaar;	19,5%	36,6%	16,3%
	nee	77,9%	62,2%	80,9%
50 Hoe verbonden voelt u zich met uw buurt?	zeer sterk;	8,2%	8,5%	8,1%
	sterk;	43,7%	29,3%	46,4%
	niet sterk, niet zwak;	40,4%	53,7%	37,8%
	zwak;	6,6%	4,9%	7,0%
	zeer zwak	1,2%	3,7%	0,7%
51 Hoe vaak bent u de laatste vijf jaar in aanraking geweest met de gezondheidszorg? (Meerdere antwoorden mogelijk)	Ik heb minder dan vier keer per jaar contact gehad met een huisarts;	56,1%	50,0%	57,3%
	Ik heb vier keer per jaar of vaker contact gehad met een huisarts;	34,5%	45,1%	32,5%
	Ik heb één of meerdere keren contact gehad met dezelfde specialist;	40,2%	42,7%	39,7%
	Ik heb contact gehad met meerdere specialisten;	33,3%	31,7%	33,6%
	Ik ben in het ziekenhuis opgenomen geweest;	25,1%	24,4%	25,3%
	Ik ben meerdere keren opgenomen geweest in het ziekenhuis;	13,1%	6,1%	14,4%
	Ik heb langer dan 7 dagen op een intensive care afdeling gelegen;	1,6%	2,4%	1,4%
	Ik ben langer dan 6 weken opgenomen geweest in een revalidatiecentrum of verpleeghuis	2,5%	3,7%	2,3%
52 Bij wie bent u onder behandeling of van wie ontvangt u zorg? (Meerdere antwoorden mogelijk)	Huisarts	62,5%	65,9%	61,8%
	Verpleeghuisarts	1,8%	6,1%	0,9%
	Een specialist	42,4%	32,9%	44,3%
	Meerdere specialisten voor lichamelijke klachten	20,0%	20,7%	19,9%
	Specialist voor psychische klachten	1,0%	0,0%	1,2%
	Psycholoog	2,2%	2,4%	2,1%
	Diëtist	3,7%	3,7%	3,7%
	Maatschappelijk werker	0,4%	2,4%	0,0%
	Fysiotherapeut	24,2%	20,7%	24,8%
	Logopedist	1,4%	0,0%	1,6%
	Verpleegkundige/verzorgende thuiszorg	4,5%	9,8%	3,5%
	Verpleegkundige in ziekenhuis	1,6%	2,4%	1,2%

	Ik ontvang geen behandeling of zorg	25,0%	25,6%	24,8%
	Anders, namelijk	6,5%	9,8%	5,9%
53 Krijgt u voldoende en de juiste zorg van uw zorgverleners en behandelaars?	ik heb geen zorg nodig;	56,7%	53,7%	57,3%
	ik krijg alle zorg die ik nodig heb;	41,3%	41,5%	41,2%
	ik krijg geen zorg, maar heb dat wel nodig;	0,4%	2,4%	0,0%
	ik heb meer nodig van de zorg die ik nu krijg;	0,8%	1,2%	0,7%
	ik heb een ander soort zorg nodig;	0,8%	1,2%	0,7%
	ik heb veel meer of heel andere zorg nodig	0,0%	0,0%	0,0%
54 In hoeverre werken de zorgverleners en behandelaars volgens u goed met elkaar samen?	ik krijg geen zorg of zorg van één zorgverlener of behandelaar;	68,6%	73,8%	67,6%
	de zorgverleners en behandelaars werken goed met elkaar samen;	21,9%	18,8%	22,5%
	de zorgverleners en behandelaars werken samen, maar af en toe meer overleg tussen hen is wenselijk;	6,9%	6,3%	7,0%
	de zorgverleners en behandelaars werken niet zo goed samen en daardoor gaat er wel eens iets mis;	1,8%	1,3%	1,9%
	de zorgverleners en behandelaars werken langs elkaar heen;	0,8%	0,0%	1,0%
55 Verwacht u dat u in de komende 6 maanden meer of minder hulp nodig heeft?	Over 6 maanden verwacht ik geen hulp nodig te hebben	55,1%	48,8%	56,3%
	Over 6 maanden verwacht ik dat de hulp die ik krijg gelijk is gebleven	17,2%	20,0%	16,7%
	Over 6 maanden verwacht ik minder hulp nodig te hebben	1,8%	0,0%	2,1%
	Over 6 maanden verwacht ik meer hulp nodig te hebben	3,6%	7,5%	2,9%
	Over 6 maanden verwacht ik veel meer hulp nodig te hebben	0,2%	0,0%	0,2%
	Ik denk niet na over de toekomst, ik leef van dag tot dag	22,0%	23,8%	21,7%
56 Wat zijn uw ervaringen met zorgverleners of behandelaars in de afgelopen 5 jaar?	ik heb nooit problemen ervaren met zorgverleners of behandelaars;	96,0%	92,5%	96,7%
	ik of mijn naasten heb(ben) negatieve ervaringen met een zorgverlener of behandelaar gehad;	3,0%	3,8%	2,9%
	vanwege een negatieve ervaring met een zorgverlener of behandelaar ben ik wel eens naar een andere zorgverlener of behandelaar gegaan;	1,0%	3,8%	0,5%
	ik heb regelmatig conflicten met zorgverleners of behandelaars of ben wel eens tegen mijn zin opgenomen geweest	0,0%	0,0%	0,0%
57 Welke WMO-voorzieningen gebruikt u:	Huishoudelijke hulp	11,0%	22,0%	8,8%
	Begeleiding Individueel	0,0%	0,0%	0,0%
	Dagbesteding	1,0%	0,0%	1,2%
	Vervoer Omnibuzz/groepsvervoer	5,8%	12,2%	4,5%
	Vervoersvoorzieningen zoals scootmobiel, elektrische rolstoel	1,8%	3,7%	1,4%
	Logeren	0,0%	0,0%	0,0%
	Anders, namelijk	2,3%	2,4%	2,3%
	Ik maak geen gebruik van WMO-voorzieningen.	84,1%	69,5%	86,9%

58 Hoe vaak krijgt u momenteel mantelzorg?	meer dan één keer per dag; één keer per dag; meer dan één keer per week; één keer per week; minder dan één keer per week; nooit	4,0% 0,4% 1,8% 2,0% 2,8% 89,1%	1,2% 0,0% 2,5% 4,9% 3,7% 87,7%	4,5% 0,5% 1,6% 1,4% 2,6% 89,4%
59 Hoe vaak komt momenteel een vrijwilliger langs?	meer dan één keer per dag; één keer per dag; meer dan één keer per week; één keer per week; minder dan één keer per week; nooit	0,2% 0,0% 0,8% 1,6% 2,2% 95,3%	0,0% 0,0% 2,4% 1,2% 2,4% 93,9%	0,2% 0,0% 0,8% 1,6% 2,2% 95,3%
60 Waaruit bestaat deze mantelzorg/ vrijwilligerswerk? a Hulp in de huishouding	Mantelzorger(s) Nee Ja	 91,7% 8,3%	 90,2% 9,8%	 92,0% 8,0%
	Vrijwilliger(s) Nee Ja	 98,2% 1,8%	 97,6% 2,4%	 98,4% 1,6%
60b klaarmaken van de warme maaltijden	Mantelzorger(s) Nee Ja	 97,4% 2,6%	 98,8% 1,2%	 97,2% 2,8%
	Vrijwilliger(s) Nee Ja	 99,6% 0,4%	 100,0% 0,0%	 99,5% 0,5%
60c Hulp bij persoonlijke verzorging	Mantelzorger(s) Nee Ja	 97,4% 2,6%	 97,6% 2,4%	 97,4% 2,6%
	Vrijwilliger(s) Nee Ja	 100,0% 0,0%	 100,0% 0,0%	 100,0% 0,0%
60d Hulp bij medische verzorging	Mantelzorger(s) Nee Ja	 98,0% 2,0%	 98,8% 1,2%	 97,9% 2,1%
	Vrijwilliger(s) Nee Ja	 100,0% 0,0%	 100,0% 0,0%	 100,0% 0,0%
60e Gezelschap, troost, afleiding, goed gesprek	Mantelzorger(s) Nee Ja	 95,7% 4,3%	 97,6% 2,4%	 95,3% 4,7%
	Vrijwilliger(s) Nee Ja	 99,0% 1,0%	 98,8% 1,2%	 99,1% 0,9%
60f Begeleiding en/of vervoer	Mantelzorger(s) Nee Ja	 94,1% 5,9%	 95,1% 4,9%	 93,9% 6,1%
	Vrijwilliger(s) Nee Ja	 98,4% 1,6%	 97,6% 2,4%	 98,6% 1,4%

60g Regeling geldzaken en/of andere administratie	Mantelzorger(s) Nee Ja	 93,5% 6,5%	 97,6% 2,4%	 92,7% 7,3%
	Vrijwilliger(s) Nee Ja	 98,4% 1,6%	 97,6% 2,4%	 98,6% 1,4%
60h Klusjes in huis	Mantelzorger(s) Nee Ja	 95,3% 4,7%	 96,3% 3,7%	 95,0% 5,0%
	Vrijwilliger(s) Nee Ja	 97,4% 2,6%	 97,6% 2,4%	 97,4% 2,6%
60i Andere zaken, namelijk:	Mantelzorger(s) Nee Ja	 98,2% 1,8%	 95,1% 4,9%	 98,8% 1,2%
	Vrijwilliger(s) Nee Ja	 99,2% 0,8%	 97,6% 2,4%	 99,5% 0,5%
61 Verricht u zelf vrijwilligerswerk en/of mantelzorg?	ja, beide; ja, alleen vrijwilligerswerk; ja, alleen mantelzorg; nee	12,5% 26,5% 4,1% 56,9%	8,6% 25,9% 3,7% 61,7%	13,3% 26,6% 4,2% 55,9%
62 Hoe ervaart u de belasting als mantelzorger?	Prima te doen Soms wel zwaar Regelmatig zwaar Te zwaar	67,4% 21,7% 6,5% 4,3%	60,0% 13,3% 13,3% 13,3%	68,8% 23,4% 5,2% 2,6%
63 Heeft u thuiszorg?	nee; ja, namelijk .. uur per week	90,8% 9,2%	86,4% 13,6%	91,6% 8,4%
64 Waar beleeft u plezier aan? (Meerdere antwoorden mogelijk)	Genieten van eten en drinken Lekker slapen en rusten Plezierige relaties en contacten Actief zijn Jezelf redden Jezelf zijn Je gezond voelen van lichaam en geest Plezierig wonen Ik vind geen van deze gebieden belangrijk Anders, namelijk	73,8% 64,8% 76,7% 72,7% 67,2% 64,1% 70,7% 79,7% 0% 4,3%	66,3% 58,0% 71,6% 59,3% 75,3% 64,2% 55,6% 82,7% 0% 3,7%	75,3% 66,1% 77,7% 75,2% 65,7% 64,0% 73,5% 79,1% 0% 4,4%
65 Hoe tevreden bent u over de volgende aspecten: a Genieten van eten en drinken	ja, ik ben hier tevreden mee; nee, het kan beter	95,8% 4,2%	95,9% 4,1%	95,8% 4,2%
65b Lekker slapen en rusten	ja, ik ben hier tevreden mee; nee, het kan beter	85,9% 14,1%	83,3% 16,7%	86,4% 13,6%
65c Plezierige relaties en contacten	ja, ik ben hier tevreden mee; nee, het kan beter	90,9% 9,1%	83,3% 16,7%	92,3% 7,7%
65d Actief zijn	ja, ik ben hier tevreden mee; nee, het kan beter	86,5% 13,5%	76,1% 23,9%	88,5% 11,5%
65e Jezelf redden	ja, ik ben hier tevreden mee;	93,4%	91,9%	93,7%

	nee, het kan beter	6,6%	8,1%	6,3%
65f Jezelf zijn	ja, ik ben hier tevreden mee; nee, het kan beter	95,7% 4,3%	97,2% 2,8%	95,4% 4,6%
65g Je gezond voelen van lichaam en geest	ja, ik ben hier tevreden mee; nee, het kan beter	79,9% 20,1%	69,6% 30,4%	81,7% 18,3%
65h Plezierig wonen	ja, ik ben hier tevreden mee; nee, het kan beter	96,4% 3,6%	94,7% 5,3%	96,7% 3,3%
66 Neemt u (actief) deel aan de volgende activiteiten in uw buurt? (Meerdere antwoorden mogelijk)	Ik doe vrijwilligerswerk in mijn buurt Ik neem deel aan een buurt/wijkgroep Ik ben lid van een club/vereniging in de wijk Ik ben lid van een religieuze gemeenschap Ik heb regelmatig contact met buurtbewoners Anders, namelijk Geen van bovenstaande activiteiten	22,2% 7,2% 40,7% 14,8% 50,5% 12,1% 19,3%	14,6% 4,9% 29,3% 17,1% 40,2% 13,4% 34,1%	23,7% 7,7% 42,9% 14,4% 52,4% 11,8% 16,5%
67 Hoe denkt u over de volgende stellingen a Ik voel mij medeverantwoordelijk voor de leefbaarheid in de buurt	Zeer eens; Eens; Neutraal; Oneens; Zeer oneens	14,4% 53,9% 29,0% 1,9% 0,8%	13,3% 49,3% 36,0% 0,0% 1,3%	14,6% 54,7% 27,7% 2,2% 0,7%
67b In de buurt gaat men op een prettige manier met elkaar om	Zeer eens; Eens; Neutraal; Oneens; Zeer oneens	14,3% 56,4% 26,8% 1,4% 1,0%	12,0% 48,0% 37,3% 1,3% 1,3%	14,8% 57,9% 24,9% 1,5% 1,0%
67c Ik woon in een gezellige buurt waar mensen elkaar helpen en samen dingen doen	Zeer eens; Eens; Neutraal; Oneens; Zeer oneens	21,3% 38,4% 33,3% 5,8% 1,2%	14,9% 38,8% 37,3% 6,0% 3,0%	22,6% 38,3% 32,6% 5,7% 0,9%
67d Mensen kennen elkaar nauwelijks in deze buurt	Zeer eens; Eens; Neutraal; Oneens; Zeer oneens	5,8% 20,1% 35,7% 28,3% 10,2%	4,7% 28,1% 37,5% 21,9% 7,8%	6,0% 18,3% 35,3% 29,7% 10,7%
67e Ik ben tevreden met de bevolkingssamenstelling in de buurt	Zeer eens; Eens; Neutraal; Oneens; Zeer oneens	21,9% 47,4% 25,9% 2,6% 2,1%	14,8% 39,3% 37,7% 3,3% 4,9%	23,1% 48,8% 24,0% 2,5% 1,7%
68 Hoe tevreden bent u over de volgende voorzieningen: a Supermarkt	Zeer tevreden; Tevreden; Neutraal; Ontevreden; Zeer ontevreden	39,8% 53,8% 5,4% 1,0% 0,0%	30,5% 53,7% 9,8% 6.1% 0,0%	41,6% 53,8% 4,6% 0,0% 0,0%
68b Huisarts	Zeer tevreden; Tevreden; Neutraal; Ontevreden; Zeer ontevreden	40,2% 51,7% 6,8% 1,2% 0,2%	38,8% 46,3% 12,5% 2,5% 0,0%	40,4% 52,7% 5,8% 0,9% 0,2%

68c Apotheek	Zeer tevreden;	32,5%	38,3%	31,4%
	Tevreden;	58,8%	55,6%	59,4%
	Neutraal;	7,2%	6,2%	7,4%
	Ontevreden;	1,4%	0,0%	1,6%
	Zeer ontevreden	0,2%	0,0%	0,2%
68d Openbaar vervoer	Zeer tevreden;	18,7%	10,4%	20,2%
	Tevreden;	40,7%	43,3%	40,2%
	Neutraal;	37,8%	40,3%	37,4%
	Ontevreden;	1,9%	3,0%	1,7%
	Zeer ontevreden	0,9%	3,0%	0,6%
68e Ontmoetingsplekken	Zeer tevreden;	12,6%	3,1%	14,3%
	Tevreden;	40,9%	25,0%	43,7%
	Neutraal;	44,4%	70,3%	39,8%
	Ontevreden;	1,4%	1,6%	1,4%
	Zeer ontevreden	0,7%	0,0%	0,8%
68f Groenvoorzieningen	Zeer tevreden;	17,6%	5,7%	19,8%
	Tevreden;	51,0%	34,3%	54,0%
	Neutraal;	24,8%	41,4%	21,9%
	Ontevreden;	4,8%	12,9%	3,3%
	Zeer ontevreden	1,7%	5,7%	1,0%
68g Sportverenigingen	Zeer tevreden;	13,9%	4,8%	15,5%
	Tevreden;	38,9%	17,7%	42,7%
	Neutraal;	46,6%	77,4%	41,2%
	Ontevreden;	0,5%	0,0%	0,6%
	Zeer ontevreden	0,0%	0,0%	0,0%
68h Buurtinitiatieven	Zeer tevreden;	9,2%	5,6%	9,9%
	Tevreden;	32,6%	33,3%	32.4%
	Neutraal;	51,6%	48,6%	52,2%
	Ontevreden;	5,0%	9,7%	4,1%
	Zeer ontevreden	1,6%	2,8%	1,4%
69 U woont zelfstandig, maakt u wel eens gebruik van de volgende diensten?	Hulp bij dagelijkse handelingen/verzorging (aan- en uitkleden, wassen e.d.)	3,0%	3,7%	2,8%
	Huishoudelijke hulp	21,7%	30,5%	20,0%
	Verpleegkundige hulp	2,0%	3,7%	1,6%
	Hulpmiddel en/of aanpassingen in huis (rollator, rolstoel, scootmobiel, traplift, e.d.)	8,1%	8,5%	8,0%
	Hulp bij administratie en/of financiën	16,9%	14,6%	17,4%
	Ondersteuning bij het uitbouwen en onderhouden van sociale contacten	1,4%	2,4%	1,2%
	Ondersteuning bij het vinden/doen van activiteiten (bijvoorbeeld hobby's of sport)	3,0%	3,7%	2,8%
	Ik heb niets nodig	64,8%	54,9%	66,7%
	Anders, namelijk	7,1%	12,2%	6,1%

Appendix 9: The familiarity and use of local services and facilities

The use of local services in the Berflo Es

Wijkcentra	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder vaak	Nooit	Nooit van gehoord	Niets ingevuld
Berflohoes	0%	9,6%	1,2%	48%	68,7%	1,2%	14,5%
Wijkcentra de Tempel	0%	0%	0%	0%	65,1%	15,7%	19,3%
De jeugd	1,2%	3,6%	7,2%	10,8%	60,2%%	6,0%	10,8%
Buurtcentrum 't Lansink	0%	1,2%	1,2%	2,4%	71,1%	4,8%	19,3%
Dagopvang/activiteiten	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder vaak	Nooit	Nooit van gehoord	
Vertierkwartier in de Klokstee	1,2%	0%	0%	1,2%	67,5%	13,3%	16,9%
De Sjook	0%	0%	1,2%	1,2%	54,2%	26,5%	16,9%
Berflohoes	0%	4,8%	1,2%	4,8%	71,1%	6,0%	12,0%
Eetpunten	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder vaak	Nooit	Nooit van gehoord	
Berflo Hoes	0%	4,8%	1,2%	2,4%	71,1%	3,6%	16,9%
Buurtmensa Uit & Zo	0%	0%	0%	0%	60,2%	20,5%	19,3%
De Klokstee (Het vertierkwartier)	0%	0%	0%	0%	68,7%	10,8%	20,5%
Winkelvoorzieningen	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder vaak	Nooit	Nooit van gehoord	
Esrein	1,2%	28,9%	16,9%	10,8%	22,9%	1,2%	18,1%
Berfloweg	1,2%	8,4%	3,6%	12,0%	51,8%	2,4%	20,5%
Overige activiteiten	Dagelijks	Eén of meerdere keren per week	Eén of meerdere keren per maand	Minder vaak	Nooit	Nooit van gehoord	
Hengelose Senioren Sport	0%	4,8%	0%	1,2%	68,7%	7,2%	18,1%
Bibliotheek	0%	8,4%	18,1%	10,8%	43,4%	2,4%	16,9%

The use of local services in Helden en Panningen

Gemeenschapshuis Kerkeböske, Helden	Dagelijks	Eén of meer keer per week	Eén of meer keer per maand	Minder vaak	Nooit	Nooit van gehoord	Niets ingevuld
Dorpsdagvoorziening de Koeberg	0%	7,4%	4,6%	8,3%	58,6%	1,9%	19,0%

Activiteiten KBO Helden	0,2%	4,6%	7,4%	11,1%	54,4%	1,6%	20,4%
Eetpunt ''De Dörper nachtegaal''	0%	0,2%	4,9%	1,6%	63,9%	6,3%	22,7%
Infoloket/ouderenadviseurs KBO	0%	0,2%	0,7%	4,2%	66,9%	3,7%	23,8%
Gemeenschapshuis in Kepèl, Panningen	Dagelijks	Eén of meer keer per week	Eén of meer keer per maand	Minder vaak	Nooit	Nooit van gehoord	
Dorpsdagvoorziening	0%	3,5%	3,5%	3,7%	63,4%	2,1%	24,1%
Activiteiten KBO	0,5%	10,2%	7,9%	10,9%	51,4%	1,2%	18,1%
Overige activiteiten	Dagelijks	Eén of meer keer per week	Eén of meer keer per maand	Minder vaak	Nooit	Nooit van gehoord	
Open Eettafel	0,2%	0%	0,5%	1,2%	64,4%	6,5%	27,1%
Infotelefoon/Ouderenadviseurs KBO	0,2%	1,2%	0,7%	3,7%	63,7%	4,2%	26,4%
Overig	Dagelijks	Eén of meer keer per week	Eén of meer keer per maand	Minder vaak	Nooit	Nooit van gehoord	
Seniorenvervoer H.E.P.	0,2%	0,7%	0,7%	3,2%	75,2%	1,9%	18,3%
WegWijzer Vorkmeer	0%	0%	0,2%	3,0%	73,8%	3,0%	20,1%
Maaltijdservice Tafeltje Dekje	0,9%	0,7%	0%	0,7%	76,6%	1,9%	19,4%
Huis van Morgen	0%	0,2%	0,2%	3,9%	74,5%	1,6%	19,7%

Appendix 10: An extensive overview of the hypothesis

A. What are the effects of place characteristics on the quality of life of elderly living in Integrated Service Areas regarding living longer independently

A2: In rural Integrated Service Areas there are more elderly people living independently with health problems than in urban Integrated Service Areas.

This thesis assumes that there are more elderly people with health problems living independently in rural integrated service areas than in rural areas. The conceptual model of the second hypothesis can be found below (figure 1).

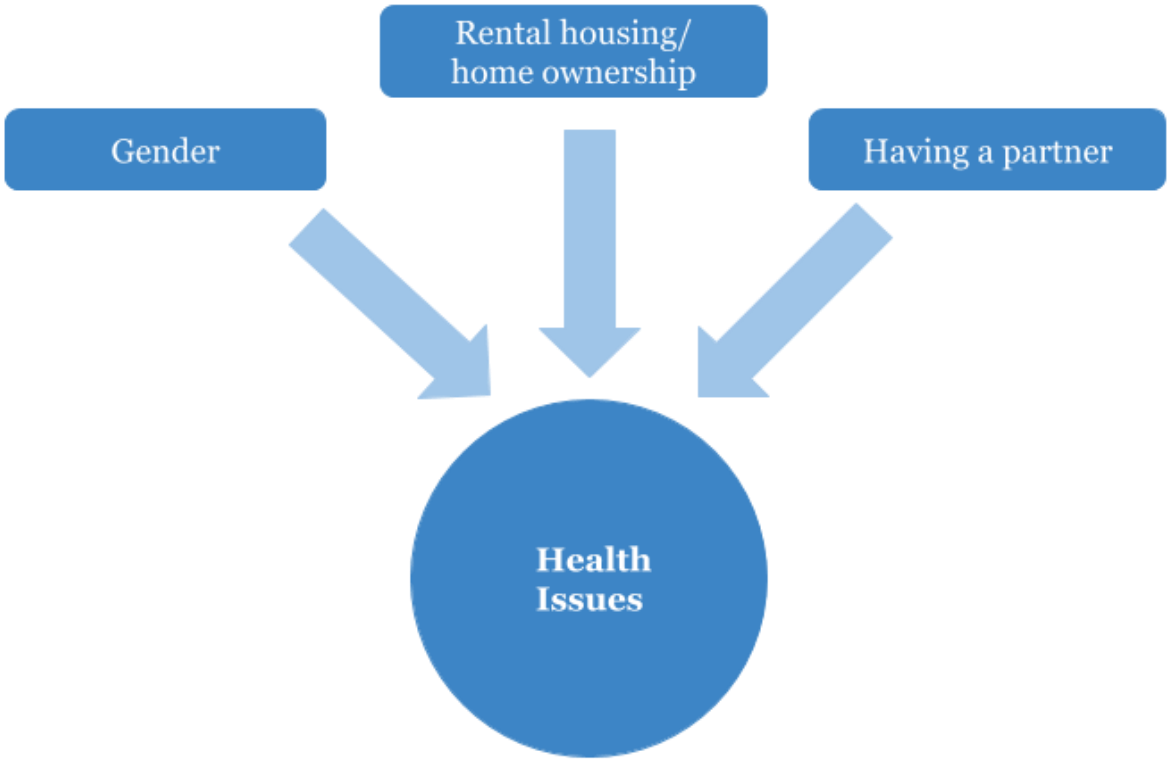

Figure 19: Conceptual Model Hypothesis 2 **Source: de Kam et al., 2012b**

Name (variable name)	*Type*	*Data item(s)*
Health Issues	Dependent variable	A sum of the following variables : q_7 + q_8 + a1 + a3_extra
Rental housing/home ownership	Independent variable	The variable q_28
Gender	Independent variable	The variable q_3_extra

Having a partner	Independent variable	The variable a6_extra

Table 12: List of variables used for hypothesis 2

The dependent variable health issues was first tested on normality. The data was not normally distributed. Since the variable is a sum of ordinal variables, one is not able to transform the dependent variable by taking the log. A Mann-Whitney test has therefore been used with health issues as the dependent variable and location as a grouping variable. A test was first run for the data of 2012.

This Mann-Whitney test was not significant, MWU=9611, p = 0,246. The amount of health issues in the Berflo Es (MR=139,14, Median=4) did not differ significantly from the amount of health issues in Helden en Panningen (MR=150,43, Median=5) in 2012. In 2018, the Mann-Whitney test is also not significant, MWU=7468,50, p = 0,053. The amount of health issues in the Berflo Es (MR=197,57, Median=3) does not differ significantly from the amount of health issues in Helden en Panningen (MR=170,84, Median=2). Although the effect is not significant, I do see that elderly in the Berflo Es have a higher mean rank for the amount of health issues than elderly in Helden en Panningen.

In addition, a linear regression was run to control for gender, for having a partner and for living in a rental house or owning a house. The regression is significant for the data of 2012, R^2 = 0,077, F(7,275) = 3,287, p = 0,002. The main effect of partner is significant (B = 0,826, p = 0,040). People who had a partner in 2012, also had more health issues. This did not differ for the two locations. The main effect of having a rental house or owning a house is also significant (B = 1,188, p = 0,003). People who lived in a rental house had more health issues. The interaction effects are not significant. In 2012, having a partner and having a rental house or owning a house thus had a significant effect on health issues. In 2018, the control variables have no effect on the outcome. In both years, no differences has been found between the two ISA's.

This paragraph has also looked at the differences in the number of people with health problems, using two question that were asked in the first survey. The questions were: If the respondent could completely function independently on a daily life and If the respondents used 4 or more different medicines.

First, this paragraph analysed if the elderly people in the Berflo Es and Helden en Panningen differ in how often they use more than four medicines. A cross-tab with a Chi-square was produced with location (0 = the Berflo Es, 1 = Helden en Panningen) and medication use (0 = no, 1 = yes). The Chi-square was significant for the data of 2012, Chi-Square p = 0,005. Thus in 2012 there were more elderly people in Helden en Panningen (60,3%) that used four or more medicines than there were in the Berflo Es (43,9%). In 2018, this Chi-square was no longer significant, Chi-Square(1) = 0,660, p = (0,416). Thus the share of elderly people in Helden en Panningen (50,7%) that use four or more medicines is not higher than in the Berflo Es (56,3%). Although the difference in 2018 is not significant, the percentages show that elderly in the Berflo Es more often use four or more medicines. This corresponds with the difference in the amount of health issues.

Second, this paragraph analysed if the Berflo Es en Helden en Panningen differ with regards to the question if they can completely function independently on a daily life. Again, a Chi-square was used. The Chi-square was not significant for the data of 2012, Chi-Square(1) = 0,201, p = 0,654. Elderly people in Helden en Panningen (79,3%) in 2012 did not function independently significantly more often than elderly people in the Berflo Es (81,4%). In 2018,

the Chi-square is also not significant, Chi-Square(1) = 2,721, p = (0,099). Elderly people in Helden en Panningen (92,4%) do not function independently significantly more often than elderly people in the Berflo Es (85,9%). Although the difference is not significant, the percentages show that elderly in Helden en Panningen more often function independently on a daily life than elderly in the Berflo Es. This corresponds with the difference in the amount of health issues and the medication use.

As a result of the data analysis, the hypothesis will be rejected. The results do not show there is a significant difference in health issues in the Berflo Es and Helden en Panningen. This has not changed in the past five years. In rural areas there do not live more elderly people independently with health problems than in urban areas. The opposite may even be true. The descriptive data of the research population shows there is a difference between health issues in rural and urban areas. Though this difference is not significant. The descriptive data shows that elderly people in Helden en Panningen have less health issues than elderly people in de Berflo Es. A reason for this, could be that there are more intramural alternatives in Helden en Panningen than in the Berflo Es. Elderly that encounter health issues in Helden en Panningen might move faster to one of these institutions than their counterparts in the Berflo Es.

A3: In rural Integrated Service Areas more frail elderly people live independently than in urban Integrated Service Areas.

This thesis assume that there are more frail elderly people living independently in rural integrated service areas than in urban areas. The conceptual model of the third hypothesis can be found below (figure 2) and a description of the variables can be found in table 2.

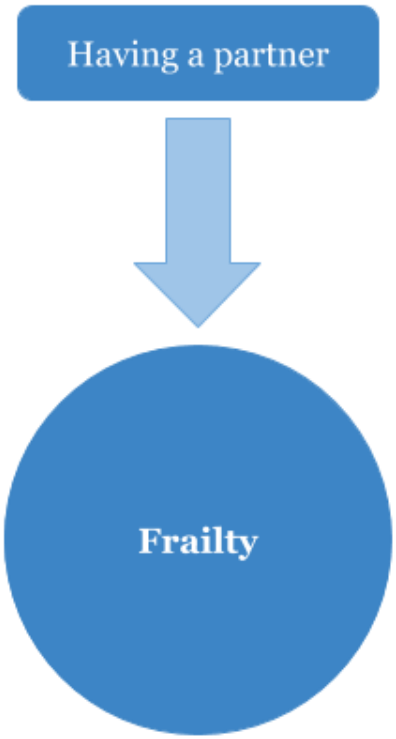

Figure 20: Conceptual Model Hypothesis 3 **Source: de Kam et al., 2012b**

Name (variable name)	*Type*	*Data item(s)*
Frailty	Dependent variable	Score on the GFI Measure (GFI_Total)
Having a partner	Independent variable	The variable a6_extra

Table 13: List of variables used for hypothesis 3

Six question were included in the first survey to obtain an estimation of frailty. Based on the results of the preliminary questionnaire, the elderly in the ISA's are divided into six groups of frailty. Table 3 shows an overview of this distribution for both ISA's.

The distribution of respondents into frailty groups based on the GFI of the preliminary questionnaire									
		Number of elderly people within each frailty group.							Total
		0	1	2	3	4	5	6	
The Berflo Es	2012	3,1%	23,4%	30,5%	21,2%	14,1%	3,9%	3,9%	100,0%
	2018	9,7%	22,6%	29,0%	17,7%	12,9%	4,8%	3,2%	100,0%
Helden en Panningen	2012	4,3%	22,0%	31,9%	17,7%	11,3%	8,5%	4,3%	100,0%
	2018	20,0%	29,8%	24,7%	14,9%	6,4%	4,1%	0,0%	100,0%

Table 14: The distribution of respondents into frailty groups based on the GFI of the preliminary questionnaire for 2012 and 2018

A Mann-Whitney was used to analyse if elderly people in 2012 in the Berflo Es differed from elderly people in Helden en Panningen in terms of their frailty score. This Mann-Whitney test was not significant, MWU=8934, p = 0,885. The frailty scores of elderly in the Berflo Es (MR=134,30, Median=2) and the frailty scores of elderly in Helden en Panningen do not differ significantly from each other. (MR=135,64, Median=2). Elderly in Helden en Panningen did not have a higher frailty, than elderly in the Berflo Es. In 2018, the Mann-Whitney test, however, is significant, MWU=7061, p = 0,004. The frailty scores of elderly in the Berflo Es (MR=212,61, Median=2) and the frailty scores of elderly in Helden en Panningen do differ significantly from each other. (MR=171,94, Median=2). Elderly in the Berflo Es have a higher frailty, than elderly in Helden en Panningen. In addition, having a partner significantly predicts frailty (B= -1,1852, p = 0,000). Elderly who do not have a partner, experience a higher level of frailty than elderly who do not have a partner. This is true for both ISA's and has not changed in the past five years. Having a partner was also significant in 2012.

In addition to the estimated GFI, a more extensive GFI measure was used to test the hypothesis for 2018. The GFI measure is based on 15 questions. In 2012, de Kam et al. (2012) included all 15 question of the GFI measure in their questionnaire. However in the questionnaire of this research some question were replaced or removed because there were

elderly organizations active in both areas that thought the questionnaire was too long. Of the 15 questions that together form the GFI score, 12 questions were included. The correlation between the estimated GFI score and the more extensive GFI is 0,615. This shows there is a high correlation between the estimated GFI score and the extensive GFI score. Table 4 gives an overview of the average GFI score for both measures. The table shows that elderly in the Berflo Es, on average have a higher frailty than elderly in Helden en Panningen. This is true for the estimated GFI score, as well as the extensive GFI. Nevertheless, table 4 also shows that the average frailty scores of the estimated GFI are slightly higher than the frailty scores of the extensive GFI. Therefore, the extensive GFI score was also used to statistically test the hypothesis.

Location	Frailty GFI score in preliminary questionnaire	Frailty GFI score in extensive questionnaire
The Berflo Es	2,29	1,97
Helden en Panningen	1,70	1,49

Table 15: GFI scored based on the preliminary questionnaire and the follow-up questionnaire

Again, a Mann-Whitney test was used to analyse if elderly people in the Berflo Es differ from people in Helden en Panningen in terms of their frailty score on the extensive questionnaire. This Mann-Whitney test was not significant, MWU=7096,50, p = 0,060. The frailty scores of elderly in the Berflo Es (MR=192,72, Median=1) and the frailty scores of elderly in Helden en Panningen do not differ significantly from each other. (MR=167,08, Median=1). It could be that the difference is no longer significant because both areas show a lower GFI score in the extensive questionnaire. Moreover, having a partner does no longer significantly predicts the frailty level.

B. What are the effects of place characteristics on the quality of life of elderly living in Integrated Service Areas regarding their health and the use of formal and informal care?

B1: In rural areas, elderly people living independently make more use of informal care than elderly people living independently in urban areas

This hypothesis states that elderly people in a rural ISA's make more use of informal care than elderly people in urban ISA's. The conceptual model of this hypothesis can be find below (figure 3).

Figure 21: Conceptual Model Hypothesis 4 **Source: de Kam et al., 2012b**

Name (variable name)	*Type*	*Data item(s)*
Informal care	Dependent variable	A sum of the following variables : q58_extra + q59_extra
Limitations	Independent variable	A sum of the variables : q_7 + q_8 + q_13_extra + a_3_extra
Having a partner	Independent variable	The variable a6_extra
Satisfaction with social contacts	Independent variable	A sum of the following variables: q21_1_extra up to q21_5_extra
Frailty	Independent variable	Based on the first survey and the GFI Measure (GFI_Total)

Table 16: List of variables used for hypothesis 4

This hypothesis states that elderly people in a rural ISAs make more use of informal care than elderly people in urban ISAs. Figure 4 and figure 5 show the difference between the ISAs for the two elements that together constitute the outcome measure of informal care: family care and voluntary care. One can see that the difference in the average amount of support of a volunteer between the two ISAs is close to zero (figure 4). There are only minor differences found between the two areas. These minor differences are that elderly in the Berflo Es on average make slightly more use of volunteers and that in both areas the average use of volunteers has slightly increased. The average amount of support of a family caregiver, shown

in figure 5, however does suggest that there are differences between the two areas. Over the past five years elderly in Helden en Panningen have made more use of the support of family caregivers. However the average amount of support of a family caregiver has decreased quite a lot.

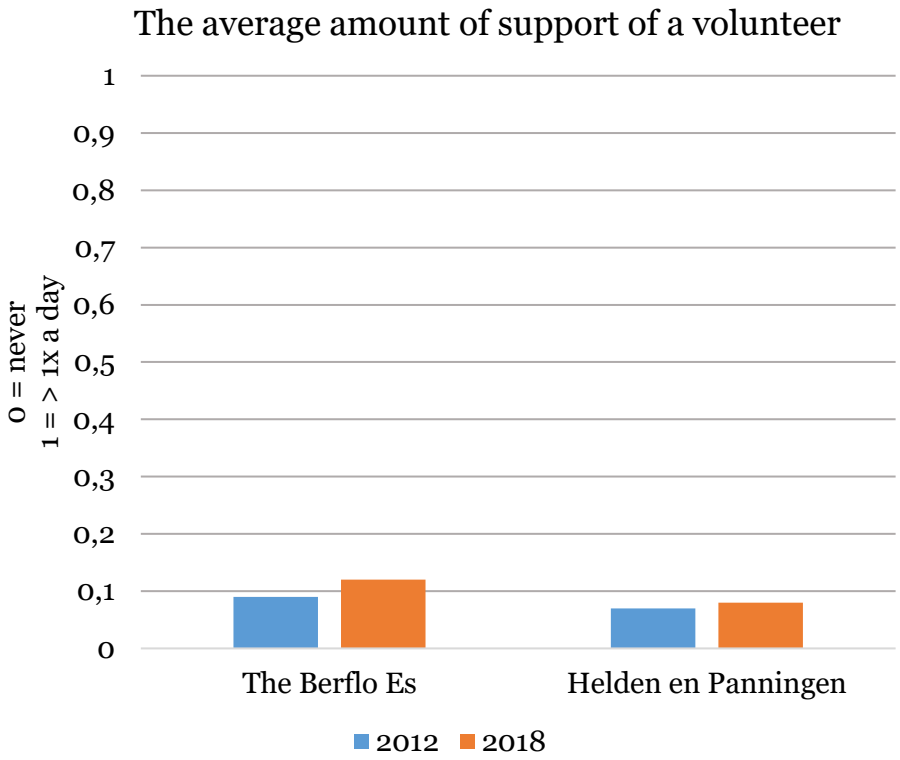

Figure 22: The average amount of support of a volunteer for both ISAs

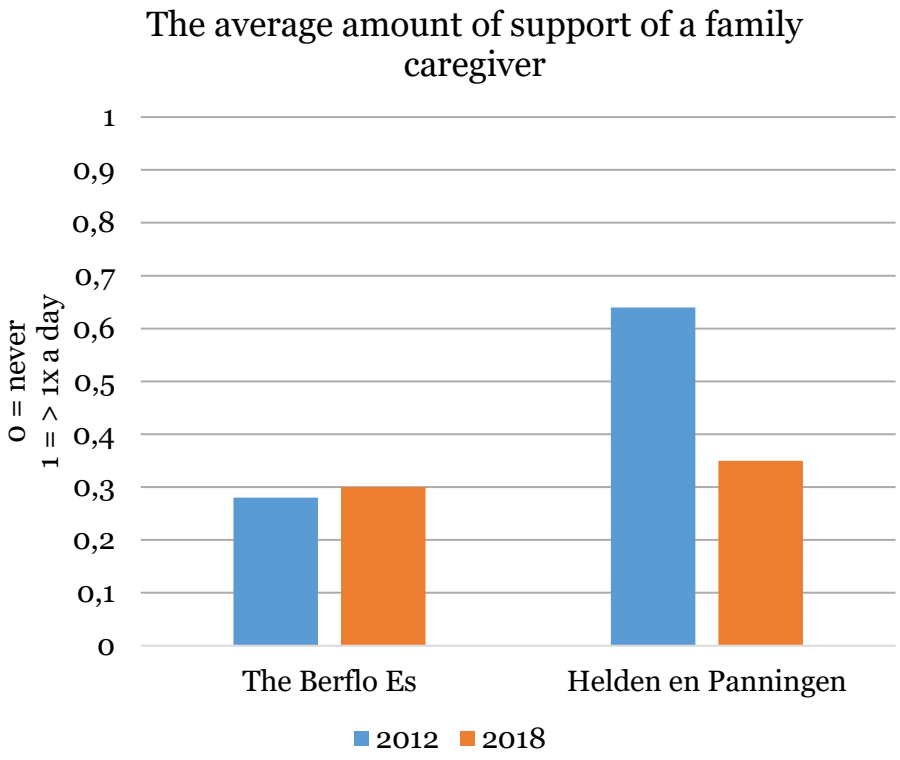

Figure 23: The average amount of support of a family caregiver

To find out if this is true, a Mann-Whitney test was run to analyse if elderly people in the Berflo Es differ from people in Helden en Panningen in terms of their use of informal care.

The Mann-Whitney test for the data of 2012 was significant, MWU=8993, p = 0,008. The amount of informal care that elderly in the Berflo Es (MR=134,70, Median=0) received and the amount of informal care that elderly in Helden en Panningen received, differed significantly from each other. (MR=152,74, Median=0). The Mann-Whitney test shows that elderly in Helden en Panningen significantly received more informal care than elderly in the Berflo Es. In 2018, the Mann-Whitney test is not significant, MWU=16667, p = 0,315. The amount of informal care that elderly in the Berflo Es (MR=262,24, Median=0) receive and the amount of informal care that elderly in Helden en Panningen receive, does not differ significantly from each other. (MR=251,81, Median=0).

After the Mann-Whitney test, a regression analysis was run. The following variables were included: frailty, limitations, satisfaction with social contacts and having a partner. The regression is significant for the data of 2012, R^2 = 0,227, F(9,255) = 8,301, p = 0,000. It appears the interaction effect of frailty is a significant predictor in the model. For Helden en Panningen the effect is, B = 0,379, p = 0,015 and for the Berflo Es the effect is, B = 0,128, p = 0,273. The estimate of the regression slopes indicates that the slope is steeper than the slope of Hengelo (0,128 + 0,379 = 0,507 as against 0,128). In Helden en Panningen there is a significant positive relation between frailty and informal care. The higher the frailty, the higher the informal. For the Berflo Es this effect is not significant. Frailty does not have an effect on the use of informal care in the Berflo Es.

When using the data of 2018, the regression results show that location still does not have a significant effect on the usage of informal care (p = 0,680). The control variables also do not have a significant effect on the usage of informal care.

In 2012, the interaction effect of frailty thus had a significant effect on the use of informal care. In 2012, frailty had a significant positive relation with the use of informal care in Helden en Panningen. The higher the frailty, the higher the informal care. In 2018, however this effect was no longer significant. Nor were any of the other main effects or interaction effects. It could be that this effect is a consequence of the research population. In 2012, de Kam et al. tried to reflect the population distribution but also had a slight bias toward the more frail elderly. Since my response was lower, especially in the Berflo Es, I included all the respondents in my database which means my data might not be a representative distribution of the population and it may also include less frail people.

To answer hypothesis B1, I continued analysing the data by excluding the variable satisfaction with social contacts and including age and physical fitness. The regression results now show that age has a significant effect on informal care (p = ,000). The older people get the more care they receive. Physical fitness also has a significant effect (p = ,044). The less fit elderly are, the more they use informal care. Both effects are quite logical. People who are less fit, need more care to be able to live independently. In addition, the older people get, the more their physical abilities will decrease. In both cases, elderly need more care. The interaction effects of both variables, however, are not significant, this means that the effect does not vary for the Berflo Es and Helden en Panningen. When repeating this analysis for 2012, the results show that only age has a significant effect, B = 0,039, p = 0,036. The older people get, the more care they receive. This corresponds with the results in 2018. However in 2012, the main effect of physical fitness was not significant. Physical fitness has thus become more important when it comes to the use of informal care. A reason for this could be that local governments, as a consequence of the Social Support Act, try to postpone the use of (heavier) care and try to substitute this care with lighter care or informal care and support. In 2012, people possible made more use of heavier care when the physical fitness decreased.

B2: Elderly people in urban integrated service areas make more use of homecare than elderly people in rural integrated service areas.

This hypothesis states that elderly people in urban ISA's make more use of homecare than elderly people in urban ISA's. The conceptual model of this hypothesis can be find below (figure 6).

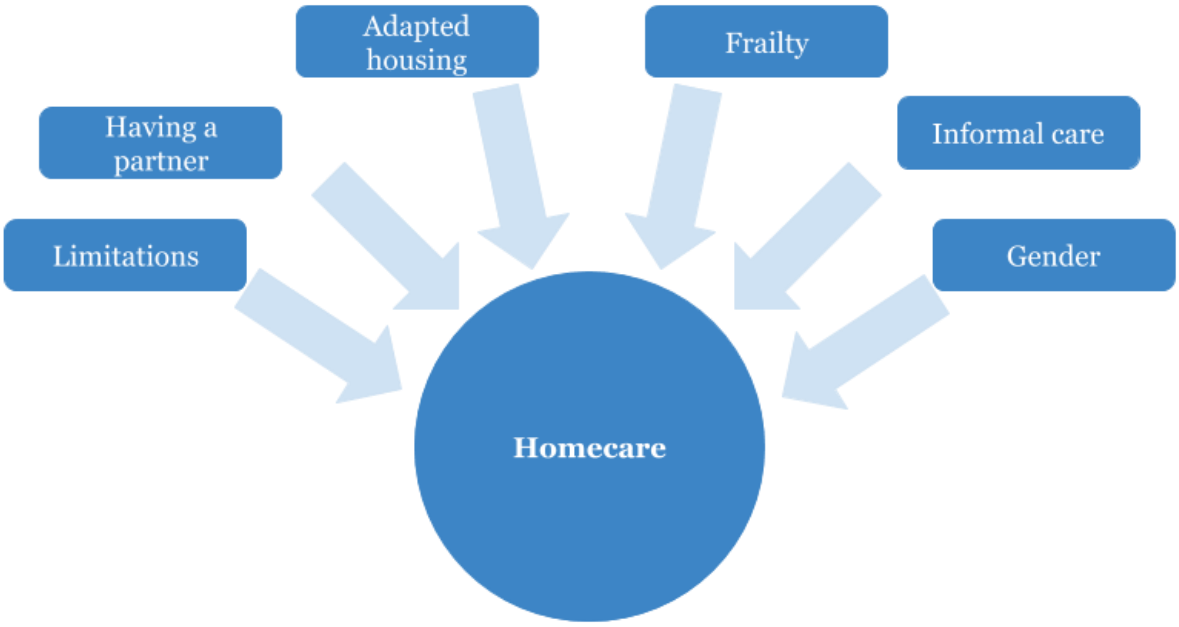

Figure 24: Conceptual Model Hypothesis 5 **Source: de Kam et al., 2012b**

Name (variable name)	*Type*	*Data item(s)*
Homecare	Dependent variable	A sum of the following variables: q_52_10 + q_63 + q_69_2
Limitations	Independent variable	A sum of the variables : q_7 + q_8 + q_13_extra + a_3_extra
Having a partner	Independent variable	The variable a6_extra
Adapted housing	Independent variable	A sum of the variables: q_29_extra + q_30_extra + q_31_extra + q_32a_extra
Frailty	Independent variable	Based on the first survey and the GFI Measure (GFI_Total)
Informal care	Dependent variable	A sum of the following variables : q58_extra + q59_extra
Gender	Independent variable	The variable q_3_extra

Table 17: List of variables used for hypothesis 5

Within the data file, I made a latent variable for the use of homecare. This variable is a sum of the following questions: 52k: Do you make use of a homecare nurse?; 63: Do you receive homecare? And question 69b: Do you make use of domestic help services? The assumption is that the share of elderly that makes use of homecare is higher in the Berflo Es than in Helden en Panningen.

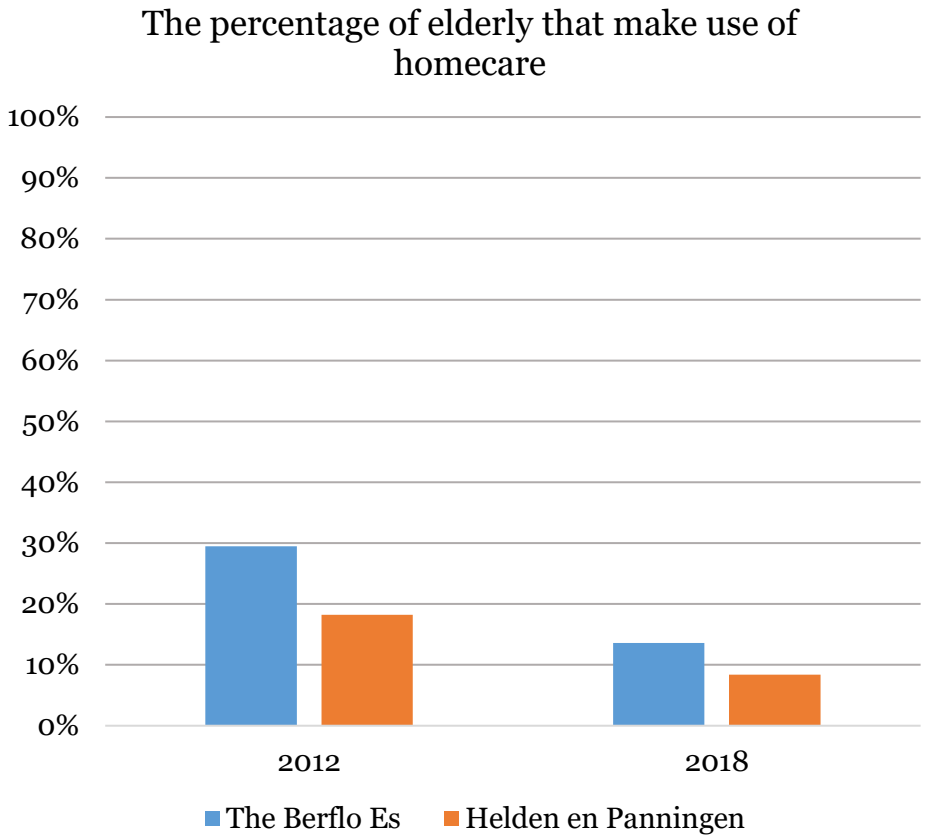

Figure 25: The percentage of elderly that make use of homecare in 2012 and 2018

The descriptive data supports the assumption that elderly in the Berflo Es make more use of homecare than elderly in Helden en Panningen. This is true for 2012, as well as 2018.

The Mann-Whitney test is not significant for the data of 2012, p = 0,840. The amount of homecare that elderly in the Berflo Es (MR=143,09, Median=0) received and the amount of informal care that elderly in Helden en Panningen received, did not differ significantly from each other. (MR=144,86, Median=0). However, In 2018, the amount of homecare that elderly in the Berflo Es (MR= 279,03, Median=0) receive and the amount of homecare that elderly in Helden en Panningen (MR=244,98, Median=0). receive, differs significantly from each other (p = 0,09). Elderly in the Berflo Es receive more homecare than elderly in Helden en Panningen. I now want to analyse if the effect of informal care on homecare is dependent on location.

Model	Unstandardized Coefficient B	Sig.
(Constant)	,391	,000
Helden en Panningen	-,176	,029
Informal Care	,351	,000
Informal Care * Helden en Panningen	-,136	,047

Table 18: Regression analysis of the effect of informal care on homecare

Table 7 shows that the main effect of location and the main effect of informal care have a significant effect. The table also shows that the relation between informal care and homecare is significant for both areas. For the Berflo Es the effect is, B = 0,351, p = 0,000 and for Helden en Panningen the effect is, B = -,136, p = 0,0476. The estimate of the regression line slope of Helden en Panningen indicates that the slope is less steep than the slope of Hengelo (0,351 – 0,136 = 0,215 as against 0,351). The negative sign of the estimate of the interaction's term's coefficient also reflects this outcome. In both locations, there is a positive relation between homecare and informal care, however this effect is significantly stronger for the Berflo Es than it is for Helden en Panningen. The findings also show that the mean amount of homecare elderly in Helden en Panningen use, starts at a lower level than the mean amount of homecare elderly in the Berflo Es use. (The location dummy is negative and statistically different from 0, which indicates that the regression line of Helden en Panningen does not cut across the dependent variable axis at a smaller homecare amount value than the Berflo Es line does).

I will run the same analysis for the data of 2012. The regression results show that the regression is significant, R^2 = 0,111, F(3,283) = 11,837, p = 0,000. The table shows that the main effect of informal care has a significant effect (B = 0,152, p = 0,016). There is a positive relation between homecare and informal care. The higher the amount of homecare, the higher the use of informal care. In 2012, there was no significant difference between the two ISA's. in 2018, there is. Although both areas showed a positive relation between the amount of homecare and the amount of informal care, the effect is significantly stronger for the Berflo Es than it is for Helden en Panningen.

It is plausible that the difference between the Berflo Es and Helden en Panningen can be explained by the infrastructure of supporting and encouraging informal care. There is a lot of advice and information in the Berflo Es, a care team. It is therefore likely that the elderly in the Berflo Es are better known and known with regard to the possibilities of combining informal and formal care. That would imply that opportunities for the use of informal care in combination with home care may be missed in Helden en Panningen.

I will now add the other independent variables used in this hypothesis. The regression was significant, R2=0,311, F(13,305) = 10,58, p = .000. The main effects of Having a Partner, Frailty and Informal Care still show a significant effect, Limitations does not.

However, the interaction effect of Limitations does have a significant effect on the use of homecare. For Helden en Panningen the effect is, B = 0,130, p = 0,011 and for the Berflo Es the effect is, B = -0,050, p = 0,276 and. The estimate of the regression line slope of Helden en Panningen indicates that the slope is steeper than the slope of Hengelo (-0,050 + 0,130 = 0,08 as against -0,05). In Helden en Panningen there is a significant positive relation between limitations and homecare. For the Berflo Es the coefficient was negative and the effect is also not significant. I can therefore not say that Limitations have an effect on the use of homecare in the Berflo Es.

This is different for the frailty. For Helden en Panningen the effect is, B = -0,351, p = 0,000 and the effect for Berflo Es is, B= 0,358, p = 0,000. The estimate of the regression line slope of Helden en Panningen indicates that the slope is less steep than the slope of Hengelo (0,358 - 0,351 = 0,007 as against 0,358). In both locations, there is a positive relation between frailty and homecare, however this effect is significantly stronger for the Berflo Es than it is for Helden en Panningen.

There is also a significant relation between having a partner and homecare in both locations. For Helden en Panningen the effect is, B= -0.779, p = 0,002 and for Berflo this effect is, B= 0,450, p = 0,049. The estimate of the regression line slope of Helden en Panningen indicates that the slope is less steep than the slope of Hengelo (0,450 - 0,779 = - 0,329 as against 0,450).

In the Berflo Es, there is a positive relation between having a partner and homecare. In Helden en Panningen this effect is negative. Elderly in Helden en Panningen that do not have a partner use more homecare.

In contrast with the previous findings, I now do not find a significant interaction effect of informal care. Other independent variables, explain the variance in homecare between locations significantly more than informal care.

I will now run the same analysis for the data of 2012. The regression is significant, R2=0,235, F(13,251) = 5,915, p = .000. The main effects of Gender (p = 0,011) and Adapted Housing (p = 0,007) have a significant effect. Females apparently use more homecare. People with an adapted house also use more homecare. This effect, however, is no longer significant in 2018. This is also the case for gender. In 2018, the main effects of Having a Partner, Frailty and Informal Care show a significant effect. In 2018, the interaction effect of frailty was also significant. In both locations, there is a positive relation between frailty and homecare, however this effect is significantly stronger for the Berflo Es than it is for Helden en Panningen. Frailty has thus become more important over the past five years. This could be as a result of the introduction of the Social Support Act and the decrease in intramural living. This could also be true for informal care.

B3: Elderly people in urban integrated service areas make more use of care professionals than elderly people in rural integrated service areas.

This hypothesis states that elderly people in urban ISA's make more use of care professionals than elderly people in urban ISA's. The conceptual model of this hypothesis can be find below (figure 8).

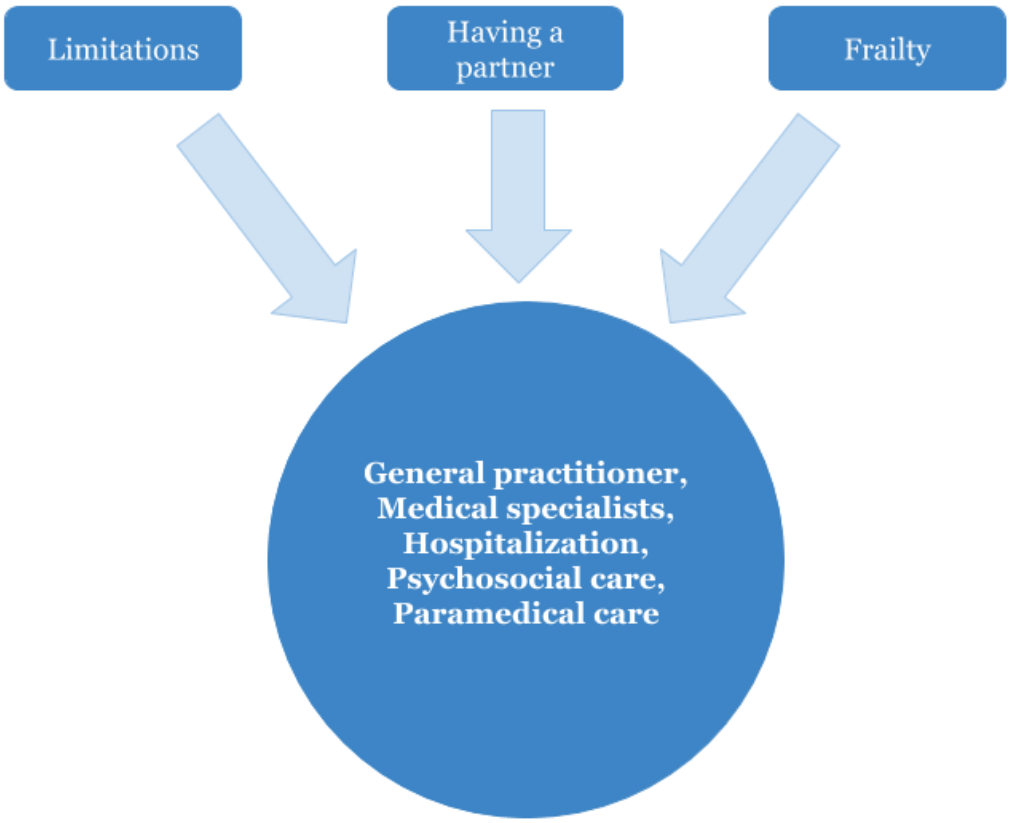

Figure 26: Conceptual Model Hypothesis 6 **Source: de Kam et al., 2012b**

Name (variable name)	*Type*	*Data item(s)*
General Practitioner	Dependent variable	A sum of the following variables: q51.1 + q51_2 + q52_0 + q52_1
Medical specialists	Dependent variable	A sum of the following variables: q51_3 + q51_4 + q52_2 + q52_3
Hospitalization	Dependent variable	A sum of the following variables: q51_5 + q51_6 + q52_12
Psychosocial care	Dependent variable	A sum of the following variables: q52_4 + q52_5 + q52_7
Paramedical care	Dependent variable	A sum of the following variables: q52_6 + q52_8 + q52_9
Limitations	Independent variable	A sum of the variables : q_7 + q_8 + q_13_extra + a_3_extra
Having a partner	Independent variable	The variable a6_extra
Frailty	Independent variable	Based on the first survey and the GFI Measure (GFI_Total)

Table 19: List of variables used for hypothesis 6

For each type of care/professional I will check whether there are differences between the two integrated service areas.

General Practitioner

This thesis assumes that elderly in the Berflo Es make more use of the care from general practitioners than elderly in Helden en Panningen. Some descriptive data on the use of care from general practitioners is shown in figure 9 and 10.

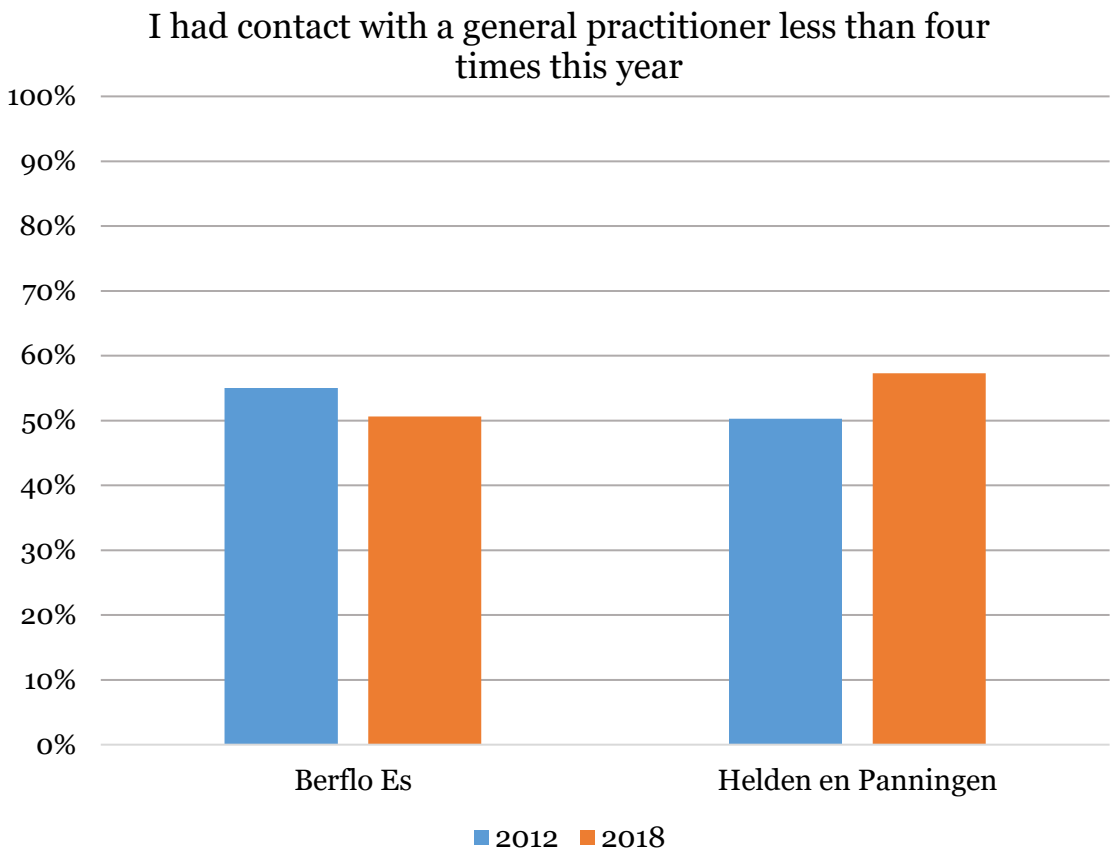

Figure 27: Percentages of elderly that had contact with a general practitioner less than four times this year

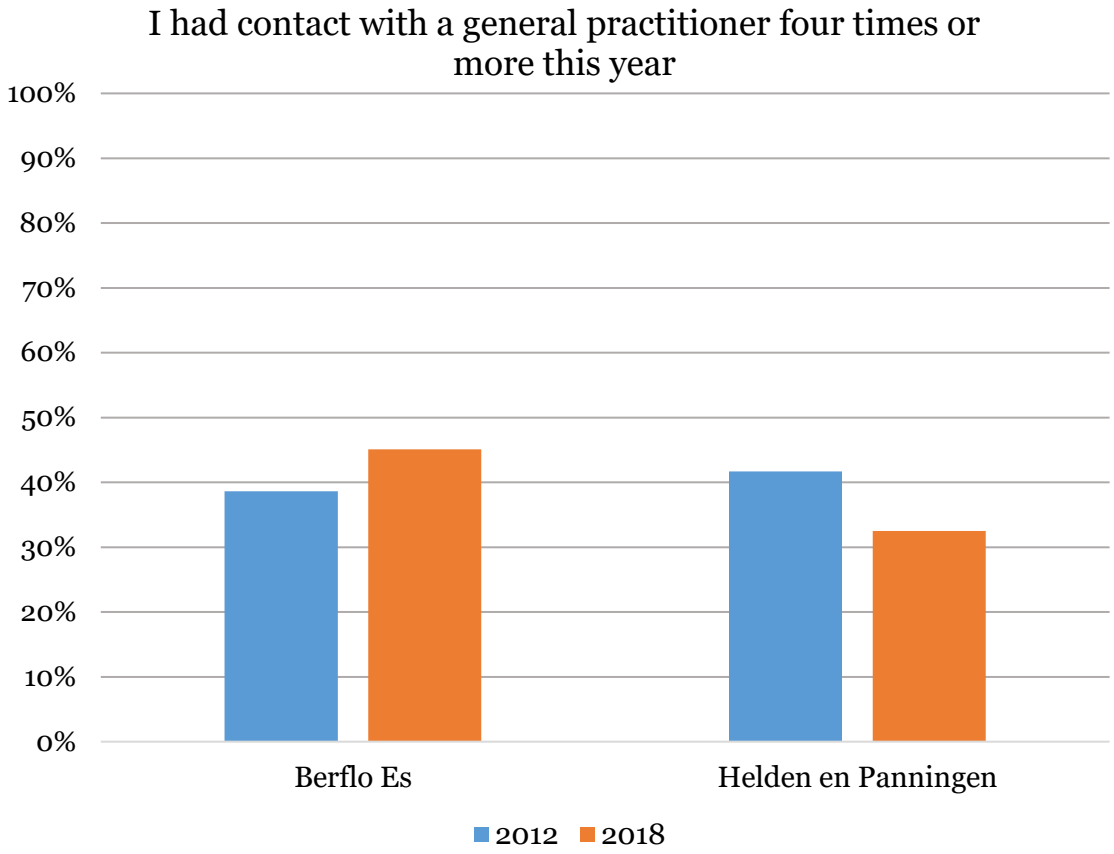

Figure 28: Percentages of elderly that had contact with a general practitioner four times or more this year

I assume that the use of general practitioners, is different for the Berflo Es and Helden en Panningen. I will therefore use a Mann-Whitney test to analyse if elderly people in the Berflo Es differ from people in Helden en Panningen in terms of their use of general practitioners. This Mann-Whitney test is not significant, MWU=15517,5, p = 0,062. The amount of care that elderly in the Berflo Es (MR= 282,04, Median=1) receive from general practitioners and the amount of care that elderly in Helden en Panningen (MR=250,34, Median=1) receive from general practitioners, does not differ significantly from each other. This is also the case for the data of 2012.

I now am going to run a regression analysis and include the independent variables shown in table 8. For the data of 2012, the findings show that the regression is significant, R^2 = 0,161, F(7,261) = 7,181, p = 0,000. For the data of 2018, the regression is also significant, R^2 = 0,195, F(6,330) = 13,34, p = 0,000.. The main effect of having a partner is significant in 2012, B = 0,535, p = 0,025. People who had a partner, more often had contact with a general practitioner. This effect is no longer significant in 2018. There were no other main effects significant in 2012. In 2018, the main effect of frailty was significant, B = 0,258, p = 0,003. The higher the frailty, the more elderly have contact with a general practitioner. This was not the case in 2012. In 2012 the p-value was almost <0,05 (p = 0,052). Thus although the effect of frailty on the amount of contact with a general practitioner was not significant in 2012, a clear trend can be perceived in which frailty has an effect on the amount of contact elderly have with a general

practitioner. This is true for both areas. There are no other main effects that are significant. The interactions are also not significant.

I, therefore, conclude that the amount of care that elderly in the Berflo Es receive from general practitioners and the amount of care that elderly in Helden en Panningen receive from general practitioners, does not differ from each other.

Medical specialists

This research assumes that elderly in the Berflo Es receive more care from medical specialists, than elderly in Helden en Panningen.

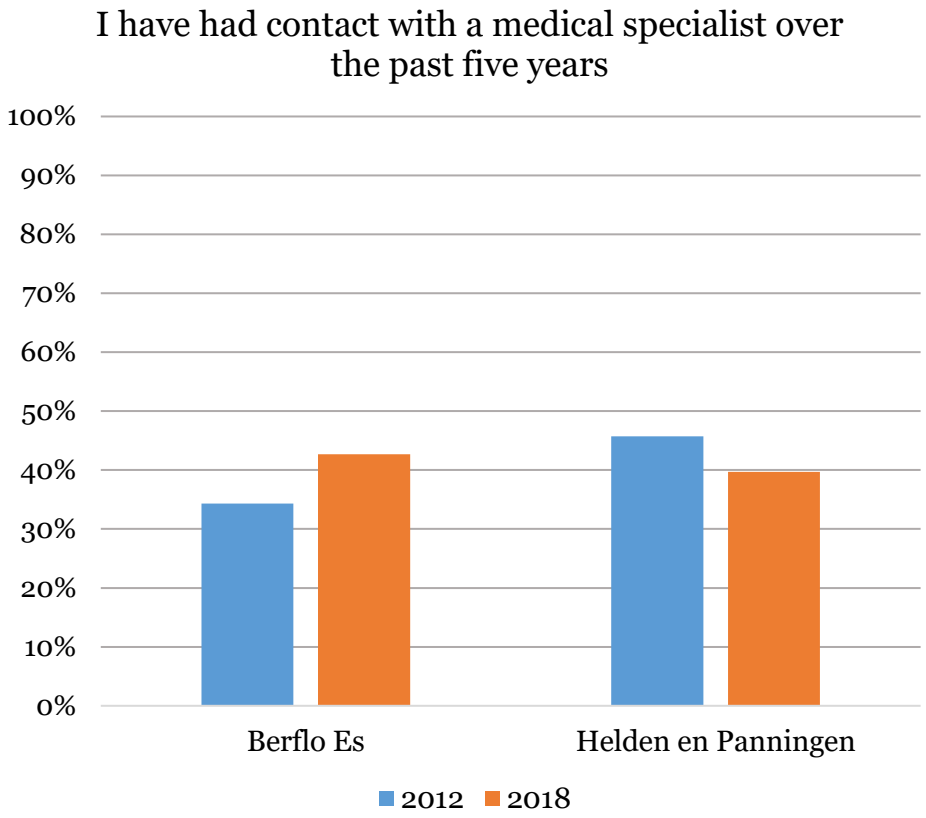

Figure 29: Percentages of elderly that had contact with a medical specialists over the past five years

I will now first analyse if the Berflo Es and Helden en Panningen differed in 2012 in terms of their use of medical specialists using a Mann-Whitney test. The Mann-Whitney test is significant, MWU=8651,5, p = 0,05. The amount of care that elderly in the Berflo Es (MR= 132,30, Median=1,5) received from medical specialists and the amount of care that elderly in Helden en Panningen (MR=158,71, Median=2) received from medical specialists, did differ significantly from each other. Elderly in Helden en Panningen made more use of medical specialists. This differs from the findings in 2018. In 2018 I found no significant difference between the two areas, MWU=17336,5, p = 0,745. The amount of care that elderly in the Berflo Es (MR= 250,87, Median=1) receive from medical specialists and the amount of care that elderly in Helden en Panningen (MR=256,40, Median=1) receive from medical specialists, does not differ significantly from each other.

Consequently a regression has been run. For the data of 2012, the regression is significant, R^2 = 0,315, F(7,261) = 17,16, p = 0,000.

The results show that the main effect, as well as the interaction effect, of limitations is significant. If limitations increase than the amount of care that elderly receive will also increase. Both effects are significantly positive, however the slope is steeper for the Berflo as

(B= 0,327, p = 0,000) as it is for Helden en Panningen (B = 0,192, p = 0,047). The interaction effect of Frailty is also significant. In Helden en Panningen frailty has a significant effect on the use of medical specialist. The more frail people are, the more they use a medical specialist. In the Berflo Es, I did not find a significant relation between these two.

For the data of 2018, the regression is also significant, R^2 = 0,204, F(7,329) = 12,07, p = 0,000. The results show that the main effect of limitations is significant, B = 0,254, p = 0,005. If limitations increase than the amount of care that elderly receive will also increase. This is true for both ISAs.

Thus, in 2012 there was a significant relation between limitations and use of medical specialists for both areas. This relation was more positive for the Berflo Es than for Helden en Panningen. In 2018, limitations are still significant but it no longer differs significantly for the two areas. Frailty used to have a significant effect in 2012 in Helden en Panningen and now no longer does.

Hospitalizations

This research assumes that the amount of hospitalizations is higher in the Berflo Es than it is in Helden en Panningen.

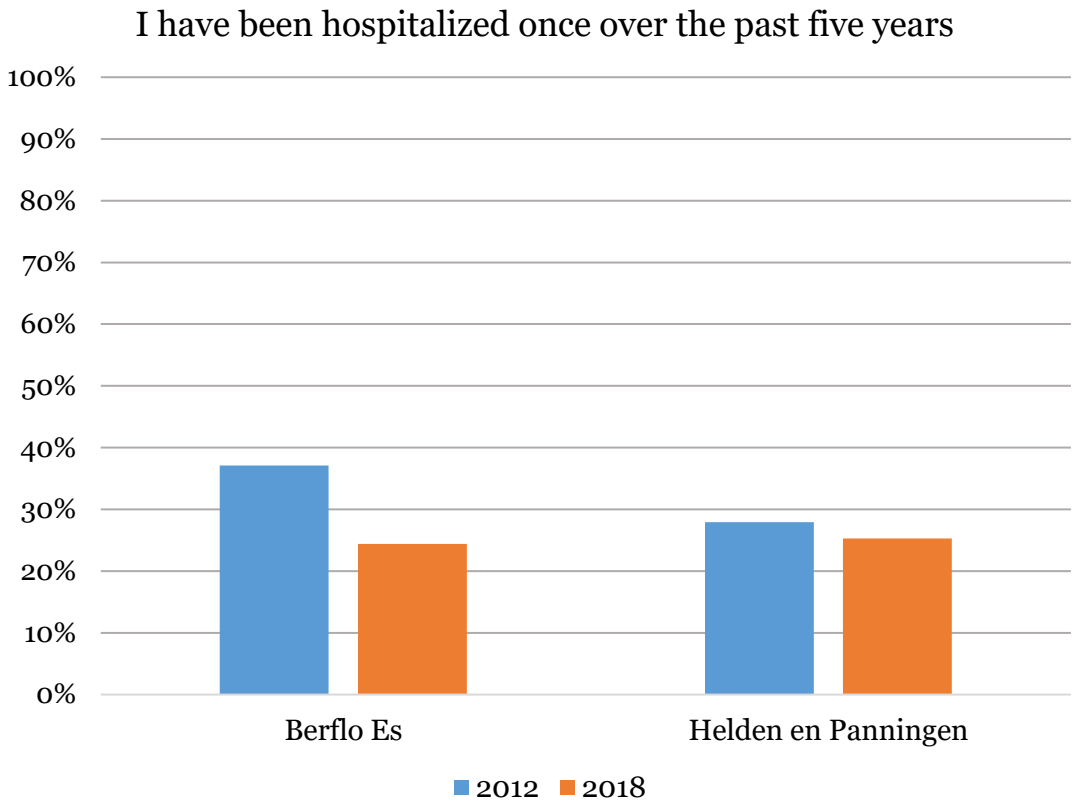

Figure 30: Percentages of elderly that have been hospitalized once over the past five years

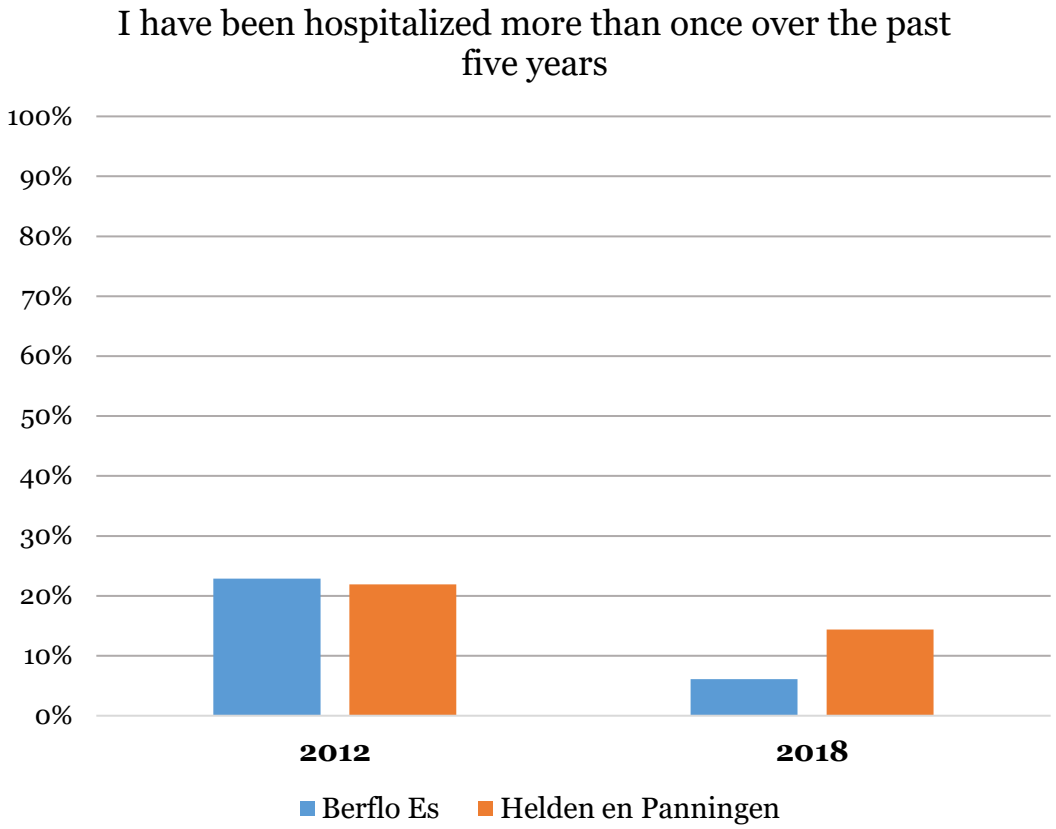

Figure 31: Percentages of elderly that have been hospitalized more than once the past five years

Figure 13 shows that the share of elderly that has been hospitalized more than once over the past five years has decreased slightly and that the difference between the two areas has increased. This might have something to do with the development of Pantaleon in Helden en Panningen. Possibly elderly now visit the hospital sooner than they did before. This finding is not confirmed by the statistical analysis. The analysis indicates that the amount of hospitalizations of elderly in the Berflo Es and the amount of hospitalizations of elderly in Helden en Panningen, does not differ significantly from each other. This was true for 2012 (MWU=9789, p = 0,224), as well as for 2018 (MWU=17071,5, p = 0,512).

I now am going to run a regression analysis to control for the independent variables.

The regression is significant for the data of 2012 (R^2 = 0,107, F(6,262) = 5,238, p = 0,000) as well as for the data of 2018 (R^2 = 0,188, F(7,299) = 9,88, p = 0,000).

The results however show that there were no significant main effects nor any interaction effects. In 2018, the main effect of frailty is significant, B = 0,096, p = 0,014. If frailty increases than the amount of hospitalizations will also increase. This is true for both ISAs.

Only frailty has become a significant predictor of the amount of hospitalizations in the past five years. However in 2012 and in 2018 there were no interaction effects significant. I, therefore, have to reject the hypothesis that elderly living in urban ISAs have been hospitalized more often than elderly living in rural ISAs in the past five years.

Psychosocial care

This research assumes that there are more elderly in the Berflo Es that receive psychosocial care than there are in Helden en Panningen. Figure 14 shows that the difference between the two ISAs is close to zero and that his has not changed over the past five years.

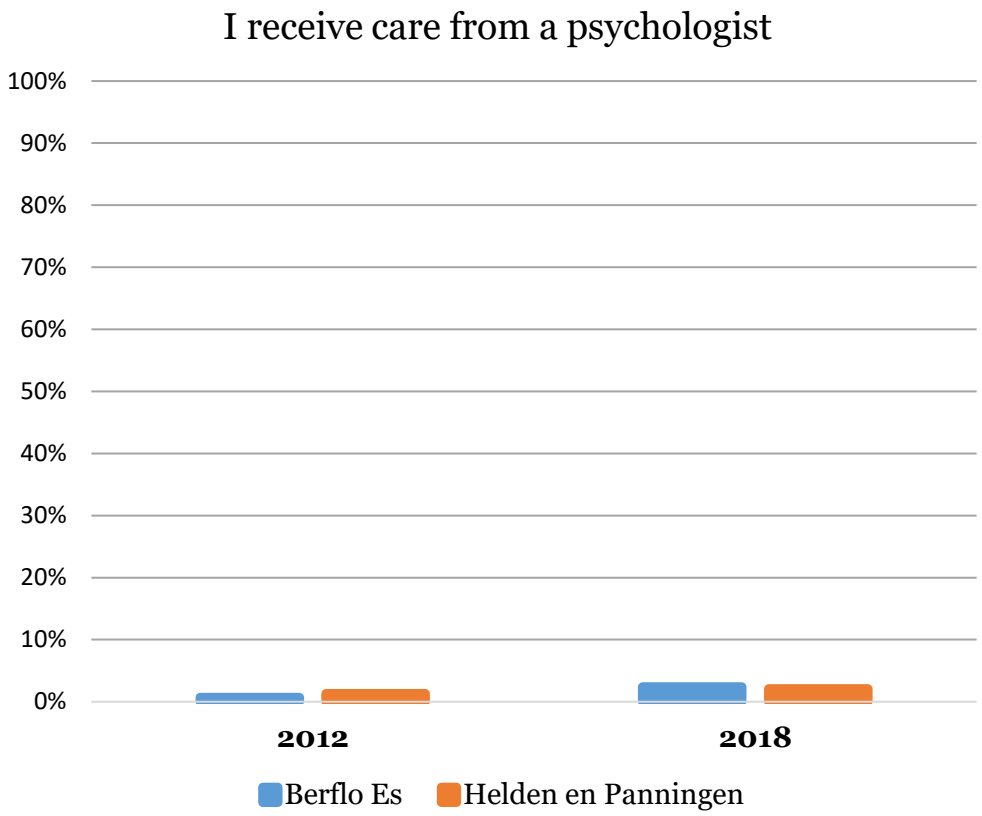

Figure 32: Percentage of elderly that receive care from a psychologist in 2012 and 2018

This corresponds with the outcome of the Mann-Whitney test since the amount of elderly that receive psychological care does not differ significantly between the two ISAs and this has not changed over the past five years. The results of the Mann-Whitney test were MWU=10305,5, p = 0,243 in 2012 and MWU=17156, p = 0,139 in 2018.

Consequently, a regression analysis was used to see if there were any significant predictors. The regression for the data of 2012 is significant, R^2 = 0,08, F(6,262) = 3,797, p = 0,001.

The results show that the main effect of frailty is significant, B = 0,048, p = 0,018. If frailty increases than the amount of hospitalizations will also increase. Only frailty predicted the amount of hospitalizations significantly in 2012. In 2018, the regression was not significant.

The two areas do not differ from each other with regards to psychosocial care. In addition, limitations, frailty and having a partner do not have a significant effect on the amount of psychosocial care elderly receive. I, therefore, have to reject the hypothesis that elderly living in urban ISAs are hospitalized more often than elderly living in rural ISAs.

Paramedical care

This research assumes that the amount of elderly that receive paramedical care is higher in the Berflo Es than it is in Helden en Panningen. This assumption is contradicted by the descriptive data. Figure 15 shows that there are more elderly in Helden en Panningen that receive care from a physiotherapist than there are in the Berflo Es. However, it also suggests that this difference has diminished.

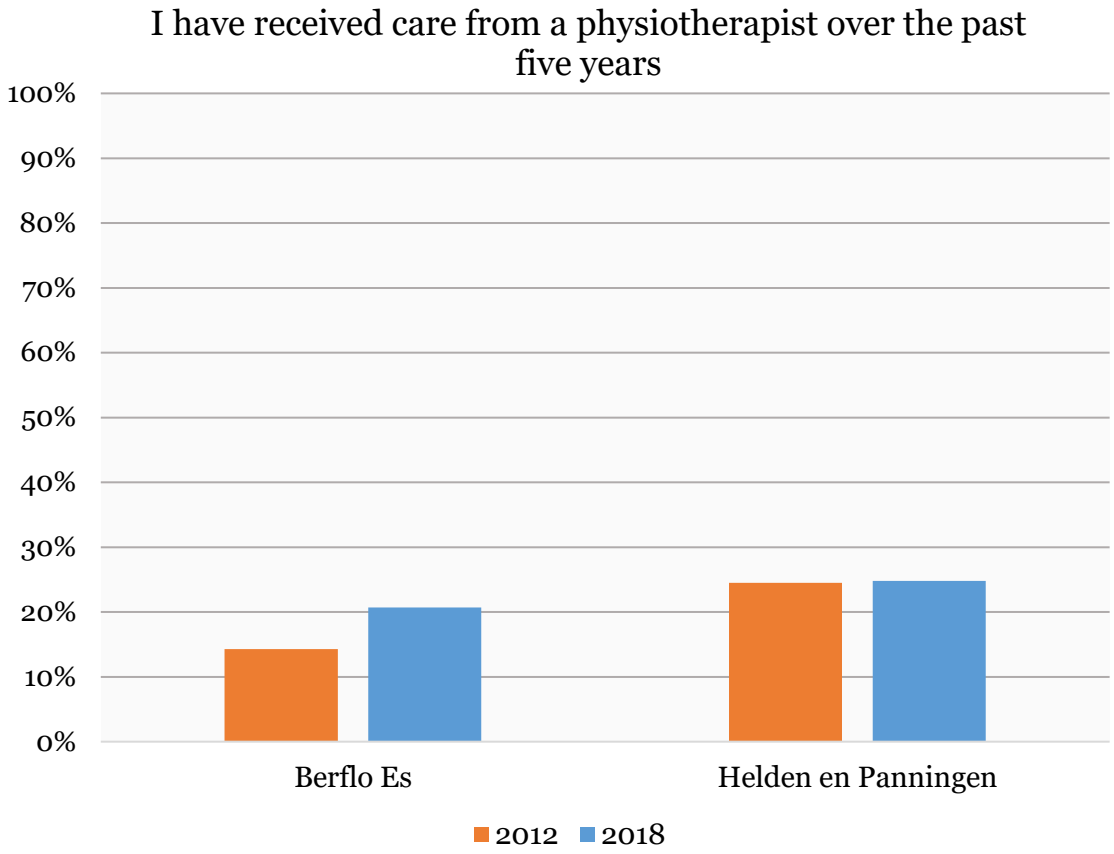

Figure 33: Percentage of elderly that have received care from a physiotherapist over the past five years

This corresponds with the statistical outcomes. In 2012, the amount of paramedical care that elderly in the Berflo Es received and the amount of paramedical care elderly in Helden en Panningen received did differ significantly from each other, MWU=9457, p = 0,044. There were significantly more elderly in Helden en Panningen (MR=153,37, Median=0) that made use of paramedical care than there were in the Berflo Es (MR= 138,05, Median=0). However, in 2018 this difference was no longer significant, MWU = 16568, p = 0,221.

Just to be sure, I ran a regression analysis to control for the independent variables. The regression is significant for 2012, R^2 = 0,133, F(6,262) = 6,704, p = 0,000. The regression is also significant for 2018, R^2 = 14,7, F(7,329) = 8,090, p= 0,000.

In 2012, the main effect of frailty is significant, B = 0,141, p = 0,001. If frailty increases than the amount of paramedical care will also increase. Only frailty predicted the amount of paramedical care significantly in 2012. This main effect is no longer significant in 2018.

However in 2018, the main effect of limitations was significant (B = 0,085, p = 0,018) and this was not the case in 2012. The results show that the main effect of limitations is significant, If limitations increase than the amount of paramedical care will also increase. This is true for both ISAs. Only limitations predict the amount of paramedical significantly. Frailty and having a partner do not. In both years, the interaction effects were not significant. I, therefore, have to reject the hypothesis that elderly living independently in urban ISAs use more paramedical care than elderly living independently in rural ISAs.

B4: Elderly people in urban integrated service areas are more satisfied with care than elderly people in rural integrated service areas.

This hypothesis states that elderly people in urban ISA's are more satisfied with the care available in the areas than elderly people in rural ISA's. The conceptual model of this hypothesis can be find below (figure 16).

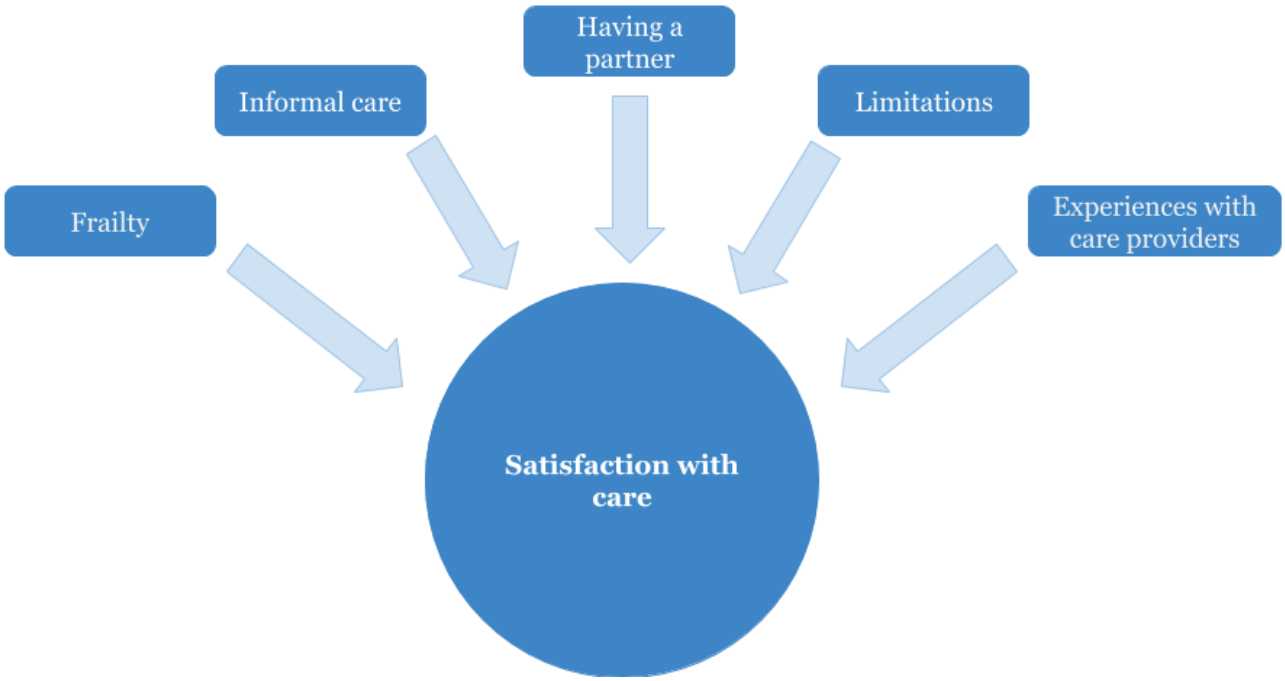

Figure 34: Conceptual Model Hypothesis 7 **Source: de Kam et al., 2012b**

Name (variable name)	*Type*	*Data item(s)*
Satisfaction with care	Dependent variable	A sum of the following variables: q53_extra + q55_extra
Frailty	Independent variable	Based on the first survey and the GFI Measure (GFI_Total)
Informal care	Independent variable	A sum of the following variables : q58_extra + q59_extra
Having a partner	Independent variable	The variable a6_extra
Limitations	Independent variable	A sum of the variables : q_7 + q_8 + q_13_extra + a_3_extra
Experiences with care providers	Independent variable	A sum of the variables: q54_extra + q56_extra

Table 20: List of variables used for hypothesis 7

This hypothesis states that elderly people in urban ISAs are more satisfied with the care available in the areas than elderly people in rural ISAs. Figures 17, 18 and 19 display the differences between the two ISAs for a number of sub-variables that are included in the model.

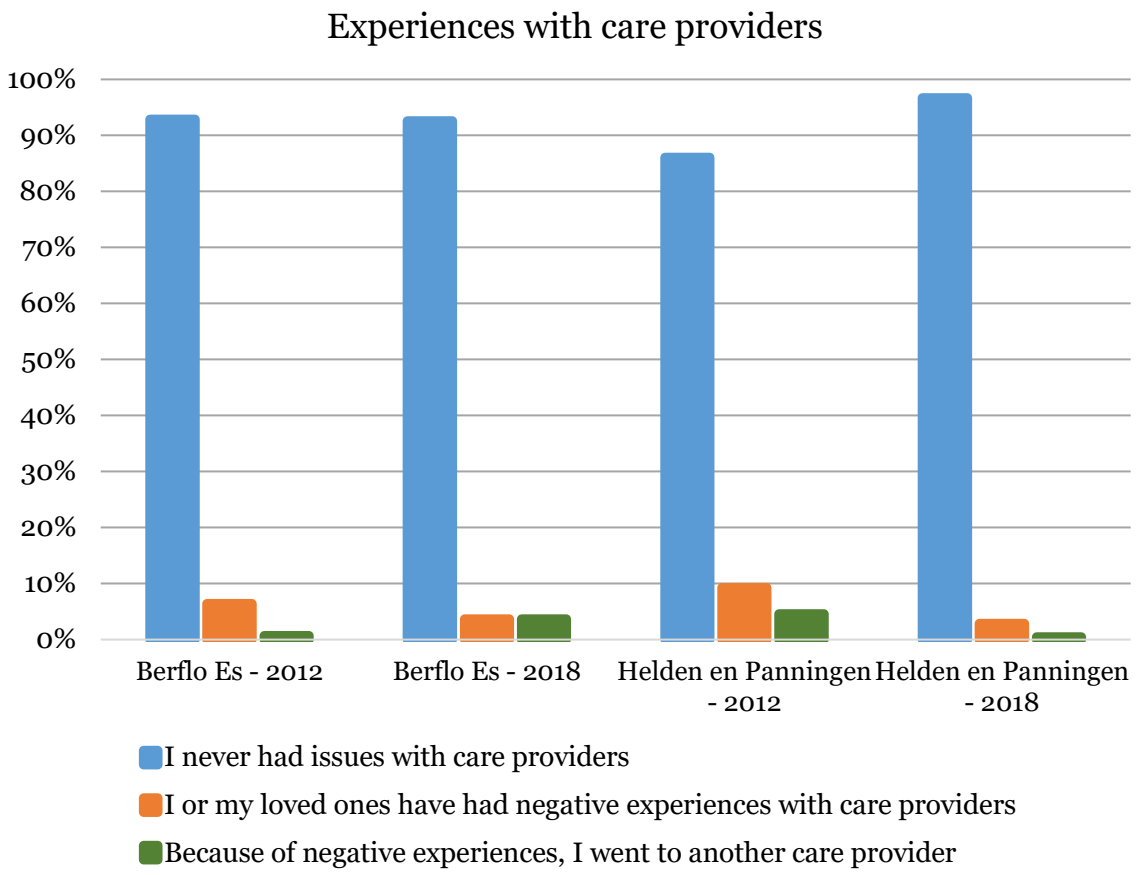

Figure 35: Experiences with care providers in 2012 and 2018

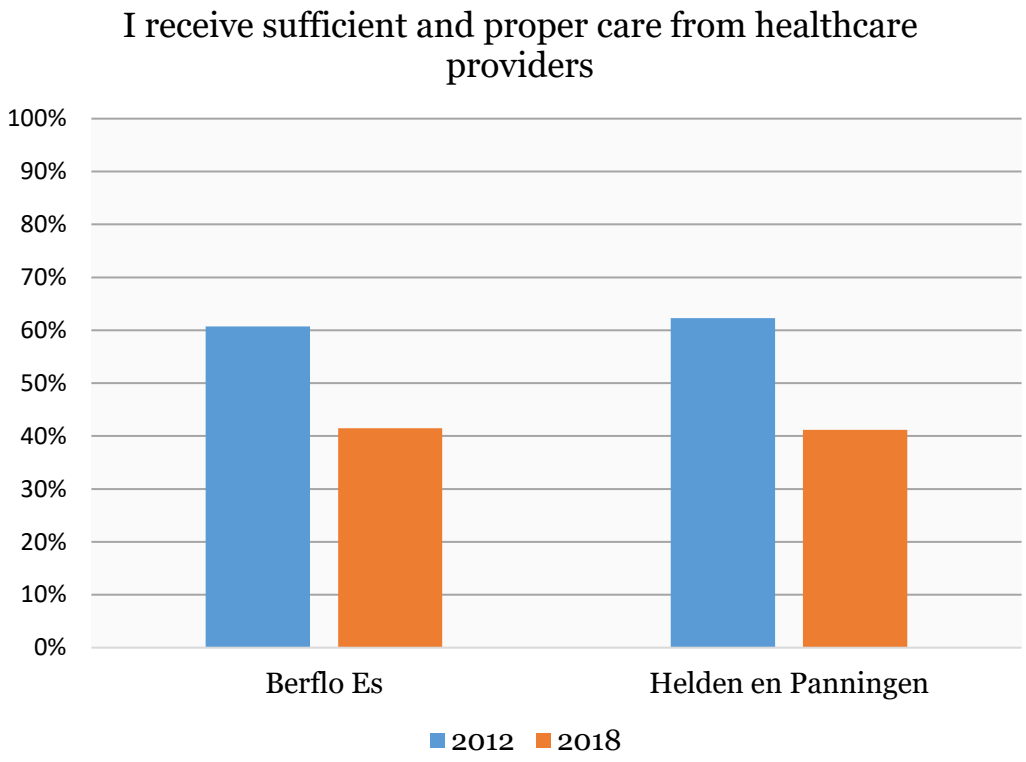

Figure 36: The share of elderly that feels like they receive sufficient and proper care from healthcare providers

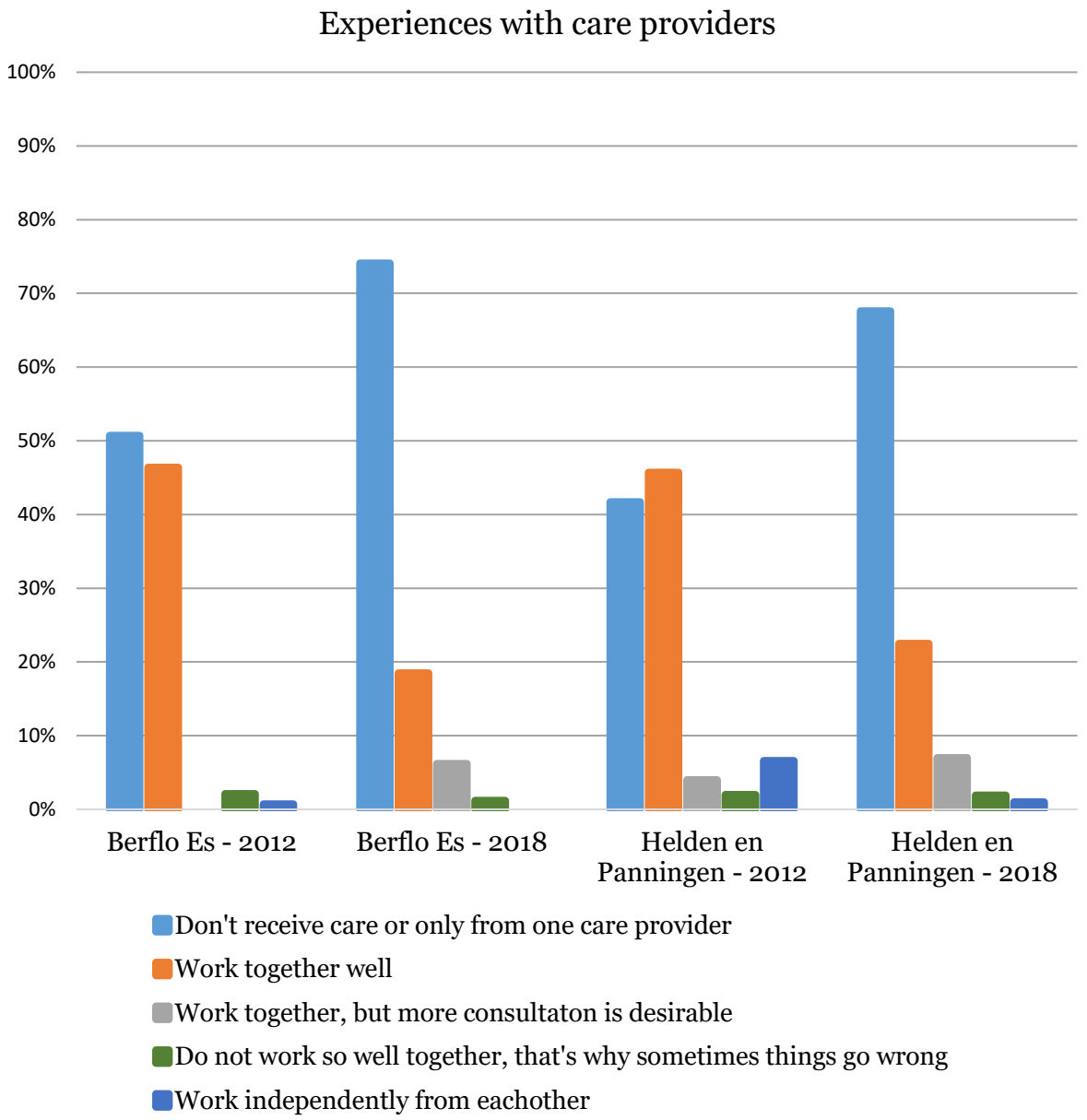

Figure 37: Experiences with care providers: collaboration and cooperation between care providers

The figures only show some slight differences in the answers between the two ISAs. Elderly in Helden en Panningen may be slightly more positive than elderly in the Berflo Es. In 2018, the share of elderly that indicated they never had issues with care providers (figure 17) was slightly higher for Helden en Panningen than for elderly in the Berflo Es. Moreover, the share of elderly that indicated that the care providers in the neighbourhood work together well was also slightly higher in Helden en Panningen than in the Berflo Es (figure 19). However, although there are some difference found, the figures do suggest that elderly in the Berflo Es and elderly in Helden en Panningen did not answer the questions very differently.

When comparing the two years, there are however some bigger differences found. For example, figure 18 shows that over the past five years the amount of elderly that feel like they receive sufficient and proper care from healthcare providers has decreased. In addition, figure 19 shows that the amount of elderly that think the care providers work together well has also decreased over the past five years. This is partly because there are more elderly in 2018 that do not receive care or only receive care from one provider and partly because elderly feel like more consultation is desirable.

The statistical outcomes correspond with the descriptive data. There is no statistical difference found in 2018 between Helden en Panningen and the Berflo Es regarding the satisfaction with care (MWU=9458,5, p = 0,403). Moreover, this has not changed since 2012 (MWU=6416, p = 0,152).
I now am going to ran a regression analysis to control for the independent variables in 2012. The regression is significant, R^2 = 0,258, F(10,205) = 7,119, p = 0,000.
When comparing the two ISA's, it appears that experience with care was the only significant predictor in 2012 (B= 0,436, p= 0,001). Elderly who were positive about their experiences with care (providers), were also more satisfied with care in general.
In 2018, The regression is not significant, R^2 = 0,610, F(11,249) = 35,346, p = 0,000. When comparing the two ISA's, it appears that place, experiences with care, frailty and having a partner are significant predictors in the model. The main effects as well as the interaction effects. Receiving informal care and limitations are not significant.

Place is significant, B = -0,935, p = 0,001. This shows that the mean satisfaction with care in Helden en Panningen, starts at a lower level (B = -0,935) than the mean amount of satisfaction with care of elderly in the Berflo Es (B=0,725). (The location dummy is positive and statistically different from 0). Elderly in the Berflo Es are according to this regression analysis more satisfied with care than elderly in Helden en Panningen.

The main effect, as well as the interaction effect of frailty, are both significant. In Hengelo this effect is, B = -0,843, p = 0,000. In Peel en Maas the effect is, B = 0,755, p = 0,000. The estimate of the regression slope of Helden en Panningen indicates that the slope is less steep than the slope of Hengelo (-0,843+0,755= -0,088 as against -0,843). In both locations, there is a negative relation between frailty and satisfaction with care, however this effect is significantly stronger for the Berflo Es than it is for Helden en Panningen. The higher the frailty, the less satisfied people are with care.

This is also the case for having a partner. In Hengelo the effect is, B = -1,008, p = 0,002 and in Peel en Maas the effect is, B = 1,221, p = 0,001. The estimate of the regression slope indicates that the slope of Helden en Panningen is less steep than the slope of Hengelo (-1,008 + 1,221 = 0,213 as against -1,008). In Helden en Panningen, there is a positive relation between having a partner and satisfaction with care. Elderly with a partner are more satisfied with care. In the Berflo Es, however, elderly without a partner are more satisfied with care.

The main effect and interaction effect of experiences with care are also significant. In Hengelo this effect is B = 0,390, p = 0,002, in Peel en Maas this effect is B=0,419, p = 0,003. In both locations, there is a significantly positive relation between experiences with care and satisfaction with care. Elderly who are positive about their experiences with care (providers), are also more satisfied with care in general. In Helden en Panningen this effect is significantly more positive than in the Berflo Es (0,390 + 0,419 = 0,809 as against 0,390).