Healthy ageing in today's society: revealing older people's health assets using photovoice






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WAGENINGEN UR For quality of life

Summary

Background. The composition of the population is changing, society is ageing. The ageing society faces challenges, like creating a new paradigm which focuses on healthy ageing instead of older people's needs and problems. Academic definitions of healthy ageing emphasize a process of adapting, compensating and optimizing opportunities. Health assets support older people in this process which results in health and well being.

Aim. The aim of this study was to increase policy makers' and the community's awareness of what older people perceive as important to healthy ageing and to engage policy makers, the community and older people themselves in an action process to enhance healthy ageing in the community of Wrexham.

Methods. Fourteen older people from the community of Wrexham were recruited by purposive and convenience sampling to participate in the study as co-researchers. This qualitative study took an asset approach and was participatory in nature, using photovoice to map, reveal, mobilize and support older people's health assets. The photovoice process included a photo mission, interviews, focus group discussions and a public exhibition. This enabled the older people to share their views on health and well being, healthy ageing and health assets by means of photographs and stories. To analyse data inductive thematic content analysis was used and stories were created summarising the information on photographs. Data has been handled confidentially and was processed anonymously. Ethical issues, mainly image ethics, have been addressed and consent forms were used.

Findings. Participants photographed a wide range of health assets that were important to them.

The findings on participants' perceptions of healthy ageing showed that to stay in social contact, practice faith, adopt a healthy lifestyle, use health care and beauty services, stay active and approach ageing in a positive and realistic way were important in the process of healthy ageing.

Participants perceived health and well being as having social contact and support, being engaged in life, being mentally fit, independent and mobile. Furthermore health and well being were related to physical aspects.

Conclusion. Health assets perceived to support older people in the process of healthy ageing were social health assets, faith, assets for physical health and well being, activities, the physical environment, assets for mobility and independence and a positive and realistic attitude.

Keywords. Health assets, healthy ageing, health and well being, older people, photovoice.

Samenvatting (Dutch summary)

Achtergrond. De samenstelling van de bevolking verandert, de samenleving vergrijst. De vergrijzing brengt uitdagingen met zich mee, zoals het creëren van een nieuw paradigma dat gericht is op gezond ouder worden en niet focust op de problemen van ouderen. Wetenschappelijke definities van gezond ouder worden benadrukken een proces van aanpassen, compenseren en optimaliseren van mogelijkheden. Bronnen voor gezondheid (health assets) helpen ouderen in dit proces dat resulteert in gezondheid en welzijn. Het in kaart brengen van deze bronnen voor gezondheid helpt de gemeenschap, onderzoekers, beleidsmakers en organisaties op het gebied van gezondheidsbevordering voor ouderen om te begrijpen hoe zij het beste actie kunnen ondernemen en beleid kunnen implementeren dat past bij de gemeenschap, gebruik makende van de voor handen zijnde bronnen voor gezondheid.

Doel. Het doel van dit onderzoek was om beleidsmakers en de gemeenschap bewust te maken van wat ouderen als belangrijk ervaren met betrekking tot gezond ouder worden en om de beleidsmakers, de gemeenschap en ouderen zelf te betrekken in een actieproces om gezond ouder worden te bevorderen in Wrexham en omgeving.

Methode. Veertien ouderen uit Wrexham en omgeving zijn geworven door middel van een doelmatige gemakssteekproef om deel te nemen aan het onderzoek als medeonderzoekers. Dit kwalitatieve onderzoek heeft een “assets” benadering genomen en was participatief. De “photovoice” methode is gebruikt om bronnen van gezondheid van ouderen in kaart te brengen, te onthullen, mobiliseren en ondersteunen. Het “photovoice” proces bestond uit een fotomissie, interviews, focus groep discussies en een openbare tentoonstelling. Ouderen konden zo hun visie op gezondheid en welzijn, gezond ouder worden en bronnen voor gezondheid delen door middel van foto’s en verhalen. De data is geanalyseerd door middel van thematische inhoudsanalyse (coderen) en het samenvatten van de data in verhalen per foto. De data is vertrouwelijk behandeld en anoniem verwerkt. Ethische kwesties, vooral met betrekking tot het afbeelden van mensen, zijn in achting genomen en er zijn toestemmingsformulieren gebruikt.

Resultaten. Ouderen fotografeerde een breed scala aan ervaren bronnen voor gezondheid.

In sociaal contact blijven, het geloof uitoefenen, een gezonde leefstijl aannemen, gebruik maken van gezondheids- en schoonheidsfaciliteiten, actief blijven en ouder worden benaderen op een positieve en realistische manier zijn aspecten die door de ouderen werden ervaren als belangrijk in het proces van gezond ouder worden.

Gezondheid en welzijn werden door de deelnemers ervaren als het hebben van sociale steun en contacten, actief betrokken zijn in het leven, mentaal fit zijn en onafhankelijk en mobiel zijn. Verder werden gezondheid en welzijn ook gerelateerd aan fysieke aspecten.

Conclusie. Door ouderen ervaren bronnen van gezondheid die bijdragen aan een proces van gezond ouder worden zijn sociale bronnen voor gezondheid, geloof, bronnen voor fysieke gezondheid en welzijn, activiteiten, de fysieke omgeving, bronnen voor mobiliteit en zelfstandigheid en een positieve en realistische houding.

Trefwoorden. Bronnen voor gezondheid, gezond ouder worden, gezondheid en welzijn, ouderen, photovoice.

Preface

In the second year of my study Master of Health and Society I was expected to write a thesis. To me this was a great opportunity to go abroad, which I have always wanted to do at some point during my study. I discussed the options with my study advisor and the internship coordinator of the chairgroup Heath and Society who pointed me in the direction of Lenneke Vaandrager. Lenneke has connections in Wales and suggested I could go to Glyndŵr University to work with Lynne Kennedy. Lynne suggested I could do research on healthy ageing, in particular on older people's health assets, using the photovoice method.

This topic appealed to me, since my mother is a homecare worker for older people and has been working with older people for more than twelve years. She tells many stories about her work and sometimes brings me in touch with the older people, this made me like the older people as a group to do research with. Moreover I think research on healthy ageing is very relevant nowadays because of the ageing society. I also liked the idea of using photovoice, this would enable me to try a method that was completely new to me and I liked the concept of using pictures as a tool to show participants' perceived health assets firsthand.

So I got on the train and went to Wales. I enjoyed living in this country and meeting a lot of new people, it has been a great experience. I learnt a lot from doing this comprehensive study, including fieldwork, and from bringing my knowledge into practice. Recruiting participants and planning appointments with them was not always easy, but I enjoyed collecting data on older people's perceptions of health and well being, healthy ageing and health assets. The photovoice exhibition was a nice way to wrap it all up. The enthusiastic reactions from participants, their family and other visitors were a lovely ending of my project in Wales.

Acknowledgements

Executing a photovoice research project on healthy ageing cannot be done alone; my thanks are due to many people for their contributions, permissions and support.

Special thanks should be given to my supervisor Dr. Lynne Kennedy for her valuable support and patient guidance throughout the whole process of the research. Her willingness to give time, feedback, ideas and support has been greatly appreciated.

I would also like to thank my supervisor Dr. Lenneke Vaandrager for her support. During the fieldwork in Wales we had to communicate by email, which is not most ideal, but her constructive recommendations and ideas have been very useful and were greatly appreciated.

I would like to express my very great appreciation to all fourteen participants for taking part in the research; their effort and time enabled me to get all the information I needed and it has been a pleasure to work with them.

I would like to express my deep gratitude to Age Concern North East Wales, especially to Christine Brownridge and Lindsay Sullivan, for helping me in recruiting participants, letting me use their facilities, experiencing some of the activities they organise and all their support and advice during the process.

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I wish to acknowledge the help provided by U3A, who allowed me to recruit participants in advance of their monthly meeting.

Finally, I would like to thank my family and friends for their support in many ways; by phone, email, cards, visits and much more. Their encouragements and interest were very supportive.

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1.) Introduction

We live in a greying society that faces numerous challenges and requires action (WHO, 2002, 2011). Recently the field of health promotion has taken a new view on ageing, namely healthy ageing (WHO, 2002). From this view a better understanding of the relationship between ageing and health is crucial and necessary to create policies and programmes that enable older people to age healthy and to remain a valuable resource for their families, communities and economies (WHO, 2002, 2011). However, how can the concept of healthy ageing be approached in research and health promotion? This can be done by taking an asset approach.

In recent decades there have been calls in the field of health promotion to restore the balance between the deficit model and the asset model for health in order to promote health in a more positive and inclusive way (I&DeA, 2010; Morgan and Ziglio, 2007). Research often emphasizes the needs, diseases, disabilities and problems of older people (deficit model) which require professional resources like welfare services and the hospital (Morgan and Ziglio, 2007). This results in people being dependent on expensive services and feeling disempowered (I&DeA, 2010). The deficit model is important to assess needs and problems, but has to be complemented by the asset model (Morgan and Ziglio, 2007). The asset model for health focuses on the community's skills, knowledge, connections, potential and positive capability to jointly identify problems and activate solutions. This promotes the self-esteem of individuals and the community and makes people aware of their potential contributions to health development. An increased use of the asset model in health promotion can help people to be in control, to sustain their own well being and make them co-producers of health, leading to less dependence on professional resources (Assets Alliance Scotland, 2010; Morgan and Ziglio, 2010; I&DeA, 2010). By taking an asset approach older people's assets for health can be identified and mobilised (Assets Alliance Scotland, 2010; Morgan and Ziglio, 2010).

Policy makers and the community might not see health as a top priority, therefore creative ways should be found to increase their awareness of health issues and to engage them in the action process. One of these creative ways is a particular research method, 'photovoice', which shows people's perceptions of their community's concerns and strengths expressed by means of photographs and stories (Kramer et al., 2010). Photovoice can be used to map the health assets of older people. Photovoice shows what the community thinks is important to their health and not what researchers think is important, it enables older people to show their perceived health assets

firsthand (Wang and Burris, 1997). This fits within the policy in Wales "The strategy for older people in Wales 2008-2013: living longer, living better", which aims to maintain older people's engagement and mainstream their concerns across all policy areas (Welsh Assembly Government, 2008).

Fundamental to the asset approach is asset mapping, as such the photovoice mission was to ask older people to show case, through the images they took and selected, their range of individual and community health assets. Asset mapping is a first step in mobilizing a community to engage in action and advocacy and to use its assets to improve health. Furthermore, it helps researchers and policy makers to understand how they can take actions and implement health policy in a way that better fits the interests of the community (Morgan and Ziglio, 2010).

This information leads to the following research question, sub-questions, aim and objectives.

Research question

What are the perceived health assets of older people (*) in the community of Wrexham?

* Older people in this study are defined as people aged 65 years or more.

Sub-questions

- What is known in the literature about using the photovoice method with older people?
- What do older people in the community of Wrexham perceive as health, well being and healthy ageing?
- What do older people in the community of Wrexham perceive as assets for their health?

Aim:

Increase policy makers' and the community's awareness of what older people perceive as important to healthy ageing and engage policy makers, the community and older people themselves in an action process to enhance healthy ageing in the community of Wrexham.

Objectives:

- Increase older people's awareness of health assets present in their community.
- Revealing older people's perceived health assets to community members and policy makers.
- Provide input for future research on advocacy and action for healthy ageing in Wrexham.

2.) Ageing and health

This section will describe the background of the research topic, namely the ageing society and the need for advocacy to promote healthy ageing. It will also provide a theoretical framework in which older people's health assets can be analysed; a model of healthy ageing will be given.

2.1 Ageing society and the need for advocacy to promote healthy ageing

This section will describe the changes in population composition, the challenges an ageing society faces and advocacy for healthy ageing as a way to take action on these challenges. Finally, several initiatives on healthy ageing will be described.

Changes in population composition

In most countries of the world, developed as well as developing countries, the society is ageing, resulting in part from decreasing fertility rates and increasing longevity (WHO, 2011). Globally the proportion of older people, defined as people over 60 years, is increasing (WHO, 2002): '*Between 2000 and 2050 the proportion of the world's population over 60 years will double from about 11% to 22%*' (WHO, 2012, p. 10). During this period the absolute number of people aged over 60 years worldwide will increase from 605 million to 2 billion (WHO, 2012). In the United Kingdom the proportion of people over 60 years is high and still increasing; in 2002 this proportion was 20.8%, and it will have increased to 29.4% in 2025 (WHO, 2002).

Figure 1 shows that the percentage of young children in the global population is decreasing, while the percentage of older people is increasing, thus ageing of the population will continue and will even accelerate.

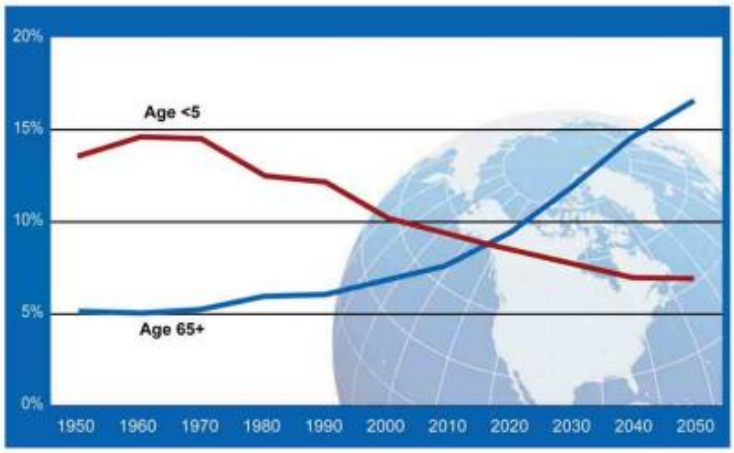


Figure 1: Young children and older people as a percentage of the global population, 1950-2050 (United Nations, 2010; as displayed in WHO, 2011).

Not only the population in general is ageing, the older population itself is ageing too. People aged over 80 years are the fastest growing segment of the older population, because of their continuously improving life expectancy (WHO, 2002; WHO, 2011). This is illustrated in figure 2, which shows that the rising life expectancy within the older population itself is increasing the proportion of people at very old ages within the global population. Life expectancy in general has shown a stable increase of approximately three moths per year between 1840 and 2007 (WHO, 2011). In Wales the three year rolling average life expectancy (period 2008-2011) for men and women at birth was 77.6 and 81.8 and at the age of 65 it was 17.7 and 20.3 respectively (Office for National Statistics, 2011).

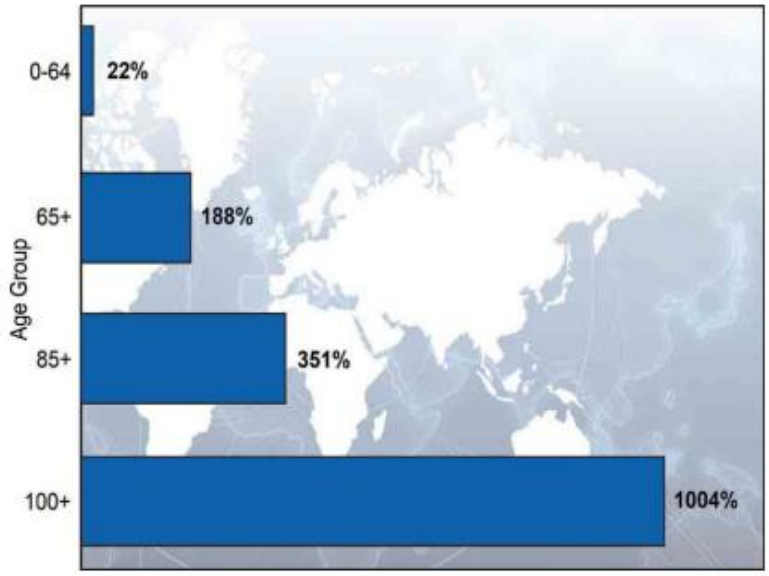


Figure 2: Percentages of change in the world's population by age, 2010-2050 (United Nations, 2010; as displayed in WHO, 2011).

Challenges of ageing society

The World Health Organization (WHO) states that *'population ageing is one of humanity's greatest triumphs. It is also one of our greatest challenges'* (WHO, 2002, p. 6). These challenges are summarised in text box 1.

Box 1: Challenges faced by an ageing society

- Increased risk of disability and chronic diseases.
- Finding a balance between self care, informal support and formal care.
- Feminization of ageing.
- Ethical concerns related to age and care.
- Managing the health care costs and social security costs of an ageing society.
- Promote a new paradigm on ageing that emphasises healthy ageing.

One such challenge is increased risk of disability. Researchers still debate on the question whether longer lives are also healthier lives, or whether the additional years are spent in poor health (WHO, 2011).

Another concern is the cost of providing care to the ageing population. A balance has to be found between '*self care (people looking after themselves), informal support (care from family and friends) and formal care (health and social services)*' (WHO, 2002, p. 37). Formal care should recognise and empower older people's strengths to take care of themselves and remain independent (WHO, 2002).

Ageing population also raises ethical concerns about age discrimination, the use of technology to lengthen life while decreasing the quality of life, inequities in access to care and the gap between health status of rich and poor older people (WHO, 2002).

In 2002 the WHO identified the challenge to promote a new paradigm '*that views older people as active participants in an age-integrated society and as active contributors as well as beneficiaries of development*'(p. 43). This paradigm replaces the dominant traditional paradigm that merely associates old people with retirement, illness and dependency; now the emphasis will be on healthy ageing. The new paradigm should support learning and working at all ages, emphasise intergenerational relationships and value older people's voluntary contribution to the society. In creating this new paradigm older people themselves and the media can take the lead, while policy makers can enhance it by recognising the value of older people's contribution to society and allowing older people in leadership roles. The younger people will have to be educated about the new paradigm; seeing older people as active participants in society with whom you can build intergenerational relationships (WHO, 2002). The new paradigm requires '*a better understanding of the changing relationship between health with age … if we are to create a future that takes full advantage of the powerful resource inherent in older populations*' (WHO, 2011, p. 1). Furthermore, to ensure that the new paradigm is integrated into all policy areas and levels action is required; advocacy for healthy ageing is one of the strategies in achieving this.

Advocacy for healthy ageing

One way to take action on public health matters is advocacy (Avery and Bashir, 2003). Advocacy is one of the three basic strategies for health promotion next to enabling and mediating (WHO, 1986).

Advocacy is defined as '*a combination of individual and social actions designed to gain political commitment, policy support, social acceptance and systems support for a particular health goal or programme*' (WHO 1995; as cited by WHO, 1998). Advocacy intends to make factors enhance health, these factors can be '*political, economic, social, cultural, environmental, behavioural and biological*' (WHO, 1986). Advocacy can take many forms and can for example involve using the media, direct political lobbying or mobilization of individuals and communities (WHO, 1998).

Health professionals have major responsibility to act as health advocates (WHO, 1998). The essence of public health advocacy is to spread the word among the community about how health can be protected and promoted and among policy makers about actions and policies that are needed. A health advocate has to be truly representative and in touch with what people say and feel. Thus the advocate has to be a good listener as well as a good messenger (Avery and Bashir, 2003).

Initiatives on healthy ageing

There have been some recent initiatives on healthy ageing which take action on the challenges faced by the ageing society. In line with the new approach to ageing the European Union declared the year 2012 to be the "European year for active ageing and solidarity between generations" and the topic of World Health Day on April 7 2012 was "Ageing and Health". The aim here was to increase society's recognition of older people's contributions and to encourage society to take action for better opportunities for healthy ageing and more intergenerational solidarity (European Union, 2012; WHO, 2012). '*Societies that take care of their older populations, and support their active participation in daily life, will be better prepared to cope with the changing* (greying) *world*' (WHO, 2012, p. 18).

In Wales, the setting of this study, the challenges of a greying society have been acknowledged by the Welsh Assembly Government (WG) through "The strategy for older people in Wales 2008-2013: living longer, living better". The aim of this strategy is to mainstream older people's concerns across all policy areas. Since older people's health and well being are influenced by a broad range of factors, older people's concerns should be taken into account in all policy areas, for example in '*community strategies, health, social care and well being strategies and local development plans*' (Welsh Assembly Government, 2008, p. 13). The three themes of this strategy are:

1) Maintaining older people's engagement by promoting positive images of older people and enabling them to participate as fully as they wish to create a positive self image, a sense of social inclusion and intergenerational relationships and to counteract age discrimination,

2) Enhance the economic status and contribution of older people,

3) Improve older people's health, well being and independence, which can be achieved by health promotion programmes and development of (access to) good housing and health and social care services (Welsh Assembly Government, 2008).

Summary – Ageing society and the need for advocacy to promote healthy ageing

The composition of the population is changing; the society is ageing. The proportion and absolute number of people aged over 60 is increasing. Moreover people aged over 80 years are the fastest growing segment of the older population.

The ageing society faces several challenges, like the challenge to create a new paradigm '*that views older people as active participants in an age-integrated society and as active contributors as well as beneficiaries of development'* (WHO, 2002, p. 43).

Advocacy is a strategy that can be used to promote healthy ageing and is defined as "*a combination of individual and social actions designed to gain political commitment, policy support, social acceptance and systems support for a particular health goal or programme*" (WHO 1995; as cited in WHO, 1998).

There have been some recent initiatives on healthy ageing. The European Union declared the year 2012 to be the "European year for active ageing and solidarity between generations" and the topic of World Health Day on April 7 2012 was "Ageing and Health." Furthermore the Welsh Assembly Government created "The strategy for older people in Wales 2008-2013: living longer, living better."

2.2 Theoretical framework

The previous section showed that the field of health promotion is taking a new view on ageing, namely healthy ageing. This section will provide a model of healthy ageing; a theoretical framework by which the findings can be analysed. Three elements are central in this model: "health and wellbeing of older people" (the outcome), "healthy ageing" (the process) and "assets" (resources that support older people in the process of healthy aging). In the following paragraphs these elements will be discussed.

2.2.1 Health and well being

In the literature different concepts are used to describe the outcomes of the process of healthy ageing, like successful ageing or health and well being. For each of these concepts multiple definitions exist. In this study “health and well being” will be used to describe the outcome of the process of healthy ageing.

Depp and Jeste (2006) reviewed twenty-nine definitions of health and well being of older people and identified the most frequent used components of these definitions. Absence of disability and/or physical functioning was the most frequent used component (26 of 29), this refers to older people’s activities in daily life. The next most often used component, was cognitive functioning (13 of 29). They also identified strong, moderate and weak predictors and correlates to health and well being, which are illustrated in figure 3.

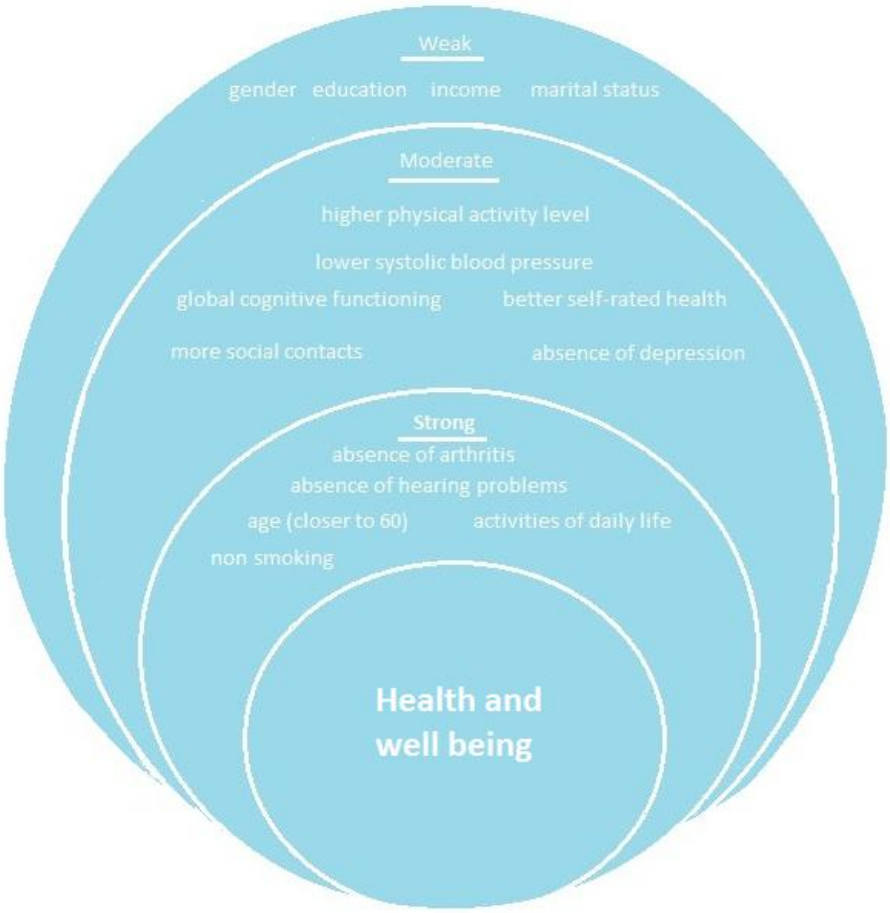


Figure 3: Strong, moderate and weak correlates and predictors to health and well being, based on Depp and Jeste (2006).

Adaptive and functional dimension of health and well being

There are two main directions in defining health and well being of older people. One is to define health and well being as escaping physical illness and disability; this is about ideal functional ageing and can be seen as the functional dimension of health and well being. From this dimension healthy people are referred to as "escapers" (Depp and Jeste, 2006). Reed et al. (2004) describe that older people themselves mostly define health in functional terms, they focus on the ability to do things. In older people's view activity is health; doing things contributes to health, rather than that it is a result from health.

The other direction defines health and well being as surviving physical illness and disability, this takes into account adaptive processes of '*people who experience disability and/ or chronic illness, but maintain cognitive functioning, life satisfaction and social engagement*' (Depp and Jeste, 2006, p. 18). This can be seen as the adaptive dimension of health and well being from which healthy people are referred to as "survivors". In this line of reasoning Sidell (1995) stresses to pay attention to the interaction with the physical and social environment. Qualitative empirical studies show that older people who suffer from disability and disease might still rate their own health as good, since they do not just perceive health as the absence of disease, but also as feeling good, having life satisfaction and self-esteem (Sidell, 1995). In the literature both perspectives appear to be relevant to older people themselves.

Health and well being are also related to older people's quality of life. Quality of life is a person's '*perception of his or her position in life in the context of the culture and value system where they live and in relation to their goals, expectations, standards and concerns*' (WHO, 2002, p. 13). To older people quality of life is mostly determined by autonomy; their ability to stay in control of their life, and independence; functioning in daily life with little or no help from others (WHO, 2002). Hansen-Kyle (2006) views autonomy and independence as the two main components of health and well being. Thus autonomy and independence are important to older people's perceived health, well being and quality of life.

2.2.2 Process of healthy ageing

In the literature different concepts are used to describe the process of healthy ageing such as successful ageing, active ageing and healthy ageing. All these concepts more or less mean the same. For this study the concept 'healthy ageing' was chosen. This concept is often used in policy

documents and was expected to fit policy makers' way of thinking, which helps in achieving the goal of increasing policy makers' awareness of what older people perceive as important to healthy ageing and engaging them in action. Furthermore, the concept healthy ageing was expected to be suitable and understandable for the older people who were involved as co-researchers, it is more comprehensive than active ageing, which might make people focus too much on activities, and clearer than successful ageing, which raises the question of what success is.

Definitions of healthy ageing

The WHO defines healthy ageing as '*the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age*' (WHO, 2002, p. 12). The word "participation" implies that older people continue to participate in '*social, economic, cultural, spiritual and civic affairs, not just the ability to be physically active or to participate in the labour force'* (WHO, 2002, p. 12).

Hansen-Kyle (2006) defines healthy ageing as '*the process of slowing down, physically and cognitively, while resiliently adapting and compensating in order to optimally function and participate in all areas of one's life (physical, cognitive, social, and spiritual)*'(p. 52). '*To function optimally means for older people to perceive control over the decisions that affect their lives*' (Forbes, 2001; as cited by Lezwijn et al, 2011, p. 44). This resonates with autonomy as an important factor for older people's health, well being and quality of life.

These two definitions of healthy ageing are quite similar, they emphasize a process of adapting, compensating and optimizing opportunities. Adaptation means that older people are able to adapt themselves to physical and cognitive limitations. People who adapt have the ability to redefine themselves; they continuously evaluate their '*physical, cognitive, and social support strengths and weaknesses'* and redefine themselves in terms of '*independence, autonomy and self-esteem*' if needed (Hansen-Kyle, 2006, p. 50). Compensation means that an older person has the '*ability to change one's lifestyle to accommodate the physical changes that have occurred*'(Hansen-Kyle, 2006, p. 51). When adaptation and compensation are in place a person has the ability to change if needed, which supports healthy ageing.

The two definitions of healthy ageing and the conclusion of Bowling and Iliffe (2006) show that a model on healthy ageing should be multidimensional, therefore within the theoretical framework of

this study healthy ageing is viewed as remaining optimal functioning and participation in physical, cognitive, social, economic, cultural, civic and spiritual areas of one's life.

Older people's perceptions of healthy ageing

The above mentioned definitions and views on the process of healthy ageing are derived from the literature and reflect professionals' understanding. In the context of this study it is also interesting to explore how older people themselves perceive the process of healthy ageing.

Naaldenberg et al. (2010) studied perceptions and views on healthy ageing of 79 Dutch older people aged 55 years or more. Findings on healthy ageing showed that participants view themes of healthy ageing like psychological well being, loneliness and mobility as interrelated; these factors interact. Their experience of age is not just influenced by age itself, but also by '*health, engagement, participation within society, and keeping up with the news,*' ageing is viewed in the context of everyday life (Naaldenberg et al., 2010, p. 8). A positive approach to ageing, for example not complaining too much, influences how healthy a person feels. Feeling healthy is not only determined by the physical health status, but also by the ability to cope with any physical problems, get on with life and function to a satisfying level (Naaldenberg et al., 2010). Thus older peoples' perceptions of healthy ageing match the definitions from the literature, since older people themselves also describe a process of adapting, compensating and optimizing opportunities. Furthermore it resonates with the adaptive perspective on health and well being.

2.2.3 Assets for healthy ageing

Health assets are resources that support older people in the process of healthy ageing, they therefore precede this process in the model of healthy ageing. A health asset is '*any factor or resource, which enhances the ability of individuals, groups, communities, populations, social systems and/or institutions to maintain and sustain health and well being and to help to reduce health inequities. These assets can operate at the level of the individual, group, community, and/or population as protective or promoting factors to buffer against life's stresses*' (Morgan and Ziglio, 2010, p. 5). Examples of assets at the individual level are social competence, self-esteem and a sense of purpose, examples at community level are '*family and friendship networks, intergenerational solidarity, and community cohesion*' (Morgan and Ziglio, 2010, p. 5). At the institutional level examples of assets are pleasant housing, participation opportunities, health systems, employment security and political democracy (Morgan and Ziglio, 2010).

Health assets of older people

In the literature only one article was found on perceived health assets of older people. Naaldenberg et al. (2010) studied views on resources perceived to contribute to supportive environments of 79 Dutch older people aged 55 or more. Resources that contribute to a supportive environment which enhances healthy ageing can be seen as similar to health assets; especially since this study operationalized "health asset" as "resource for health" in communication with participants.

Participants in the study of Naaldenberg et al. (2010) mentioned a wide range of resources that could be divided into four main categories, namely physical environment (facilities, general practitioner, environment, neighbourhood, supermarket, home), social environment (partner, friends, neighbours, social activities, family, acquaintances), communication and mobility. These last two categories relate to how resources in the social and physical environment become available by communication and mobility. Participants' views showed that access to and use of resources is influenced by for example decreased mobility, thus nearby resources are more important and convenient because of their easy access and familiarity (Naaldenberg et al., 2010).

2.2.4 Overall theoretical framework

Based on the previously discussed concepts a model of healthy ageing was created to function as a theoretical framework for this study (Figure 4).

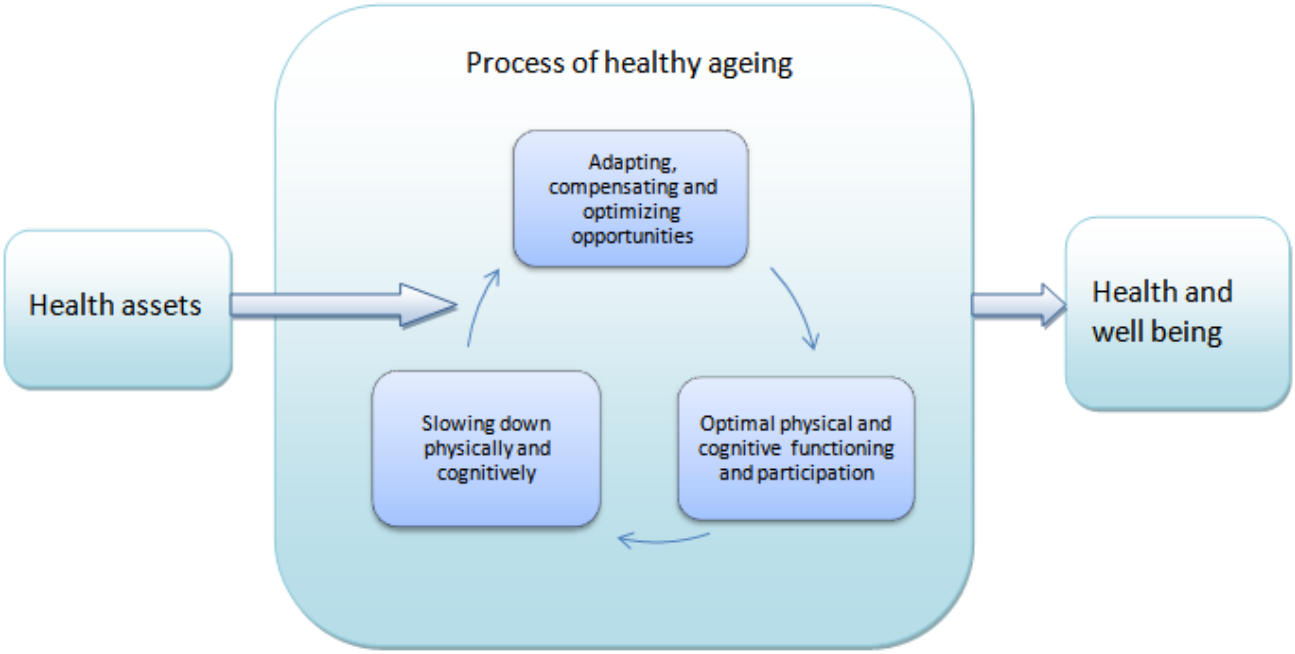


Figure 4: Theoretical framework: Model of healthy ageing.

This model shows that health assets are an input for the process of healthy ageing, this process can result in health and well being.

The process of healthy ageing consists of older people adapting, compensating and optimizing opportunities when slowing down physically and cognitively, so that optimal physical and cognitive functioning and participation are achieved. Optimal in this context does not mean that for example functioning is excellent, but as good as possible for that person.

To be able to adapt, compensate and optimize opportunities health assets are needed. For example when a person feels his mind is not absorbing information like it used to do (slowing down cognitively), a book (health asset) can help to stimulate the mind (compensate and optimize opportunities) and keep it active and functioning as good as possible (optimal functioning). This process resonates with the purpose of this study to explore assets for positive ageing experiences in older people.

3.) Research methods

This chapter will describe the research design of this study, the research methods, including the literature search process and the photovoice method, the study population, sampling and recruitment strategy. Furthermore the analysis and ethical issues will be discussed.

3.1 Research design

Qualitative study design

The process of healthy ageing is complex and perceptions on this process are influenced by the social and physical environment, therefore these perceptions can be studied best in this environment, thus in the setting of ageing itself. A qualitative study design was adopted here. Qualitative research studies social phenomena in a holistic way, interactions in daily life and the meaning participants themselves give to these interactions are investigated. Qualitative research takes place in the natural setting, rather than in a laboratory, and is evolving rather than completely prefigured, often using multiple methods. Thus this type of research is naturalistic, interpretive, multi method and emerging (Marshall and Rossman, 1999).

Asset approach

This study took an asset approach and aimed to map, mobilize and support older people's assets. Asset mapping is an essential step in promoting health when taking an asset approach (Morgan and Ziglio, 2010). In asset mapping the assets present in a community are assessed and knowledge, skills and capacities are brought into the open. This is a starting point for taking action, it builds trust between researchers and communities and is a first step in mobilizing a community to use its assets to improve health. Starting with analysing which assets are already present in the community gives health promoters and policy makers a better understanding of '*how to best create the conditions required to maximise the potential for health*' (Morgan and Ziglio, 2010, p. 10).

Participatory nature

The asset approach is participatory in nature; as such the community is more likely to feel involved, even empowered; individual skills can be developed and supportive environments can be created when health assets are identified and mobilised (Morgan and Ziglio, 2010). This resonates with participatory forms of health promotion research where it is recognised that it is important to

ensure the active input of older people and other relevant stakeholders. According to Lezwijn et al. (2011) '*to improve or maintain health, it is important to create an environment where people can see themselves as active and participating*' (p. 49). As such for this study a method was chosen that would enable older people themselves to identify health assets, not the professionals (researchers), whose role is to facilitate this process.

In Participatory Action Research (PAR) the academic researchers and community are partners in a co-learning process, this can empower the community by creating knowledge, skills and awareness. PAR is characterised by long term collaborations and does not stop after the research is done, it translates the research into action (Blair and Minkler, 2009).

Blair and Minkler describe the concept of PAR as a '*systematic inquiry, with the participation of those affected by the problem being studied, for the purpose of education and action or effecting social change*' (Green et al., 1995; as cited by Blair and Minkler, 2009, p. 652). They state that the key issue of this new century will be '*studying ageing as a global phenomenon while at the same time incorporating older people as participants into processes of research and theorizing*' (Blair and Minkler, 2009, p. 661). Research has to be done with instead of on older people, in order to make use of their strengths and knowledge as co-researchers. In this way PAR helps to understand and address the complex health and social problems that older people face, while also increasing their own and their community's capacities (Blair and Minkler, 2009).

Next to participatory the study can also be described as action research, in which problems are identified, solutions are generated and implemented and their impact evaluated (McQueen and Knussen, 2002). Finally the study is an example of community based participatory research (CBPR) (Appendix 1).

Use of photovoice

A promising form of a Participatory Action Research method is photovoice. In this study asset mapping was done using the photovoice method, which enabled older people to share their perceptions on health assets with researchers and the community by means of pictures and stories. By using photovoice this study responds to the need for participatory research on healthy ageing and promotes individual and community capacity building for action on healthy ageing.

Another reason for choosing photovoice as a research method was its potential to create environmental and policy change and to engage policy makers and the community in action for healthy ageing. Since many opportunities for health promotion can be found in the social and physical environment of the community, public health professionals call for environmental and policy change next to individual change. Creating environmental and policy change is hard and requires the engagement of different stakeholders, like policy makers and the community. Policy makers and the community might not see health promotion as a top priority, therefore creative ways should be found to increase their awareness of health issues and to engage them in the action process. Photovoice is such a creative way, it is a '*promising approach to building community support for community and environmental change*' (Kramer et al., 2010, p. 333).

Finally photovoice was chosen since it is described in the literature as an underdeveloped, but promising and effective method to reveal older people's perceptions of their communities and identify strategies for change (Novek et al., 2012). Photovoice has been used before among older people, but it has hardly been used to study health assets. In gerontology individual and community empowerment are increasingly addressed, however the participation of '*older adults as partners in the research process itself is still relatively rare*' (Blair and Minkler, 2009). Therefore the time was right for a photovoice study on older people's health assets.

3.2 Research methods

3.2.1 Literature search process

The research contains a literature review and a fieldwork component. For the literature review scientific articles were searched through the Global interface (Pubmed, Scopus and Web of Science) of the digital library of Wageningen University in The Netherlands. Furthermore, books from the library of Glyndwr University in Wrexham were used.

Table 1 shows the combinations of search terms that were used to retrieve relevant articles, reports and books on ageing and health (chapter 2), the asset approach (chapter 2 and 3), photovoice (chapter 3 and appendix 1) and PAR (chapter 3).

Search terms used during literature search process:
“ageing society” OR “greying society” AND health
“healthy ageing” OR “meaningful ageing” OR “successful ageing”
“health advocacy”
advocacy AND health
"health asset*" OR asset* OR “resource* for health" OR resource*
“asset* approach” OR “asset* model”
elderly OR "older people" OR "older adults" OR senior AND "health asset*" OR asset* OR “resource* for health" OR resource*
photovoice OR “photo voice” AND elderly OR “older adults” OR “older people” OR senior*
photovoice OR “photo voice” AND method*
photovoice OR “photo voice” AND “healthy ageing” OR ageing OR “meaningful ageing”
photovoice OR “photo voice” AND PAR OR “participatory action research” OR “participatory approach”

Table 1: Search terms used during the literature search process.

If an article stated interesting references, these articles were looked up. For example the references of the articles “Using photovoice with older adults: some methodological strengths and issues” (Novek et al., 2012) and “A photovoice study of older adults’ conceptualizations of risk” (Rush et al., 2012) were used in order to find more photovoice studies with older people.

An exclusion criteria was the year of publication, articles and books published before 1995 have not been used, except for the WHO (1986) Ottawa Charter which is still relevant nowadays. Publications in another language than English or Dutch have not been used and articles on diseases and disabilities of older people have been excluded. Furthermore, articles which contained information on PAR in general, but not on photovoice have been excluded.

3.2.2 Photovoice method

‘Photo voice is a powerful photographic technique that enables people to assess the strengths and concerns of their community and communicate their views to policy makers. By providing people in

the community with cameras, photovoice makes it possible for them to (1) record and reflect their community's assets and concerns, (2) discuss issues of importance to the community in large and small groups to promote critical dialogue and produce shared knowledge, and (3) reach policy makers' (Wang and Redwood-Jones, 2001, p. 560). Thus photovoice is a participatory, community-based health promotion method (Wang and Redwood-Jones, 2001; Wang et al, 1998).

More information on the photovoice method, in particular the concept, goals, theoretical basis, outcomes, strengths, limitations and issues of using photovoice can be found in appendix 1.

This section will describe the phases of the photovoice process. The phases of the photovoice process described in the literature are not identical to the phases of this study, since photovoice has been adapted to fit the research question and setting. For example the initial theme was not devised as is described in the literature, but a photo mission was given to participants during the initial interview. The photovoice process used for this study consists of five phases which can be divided into three categories, namely implementing the method, participatory analysis of the results and disseminating the findings (Figure 5). These phases and categories were derived from the stages mentioned by Wang et al. (1998) and the social-ecological model for guiding photovoice efforts as described by Strack et al. (2010).

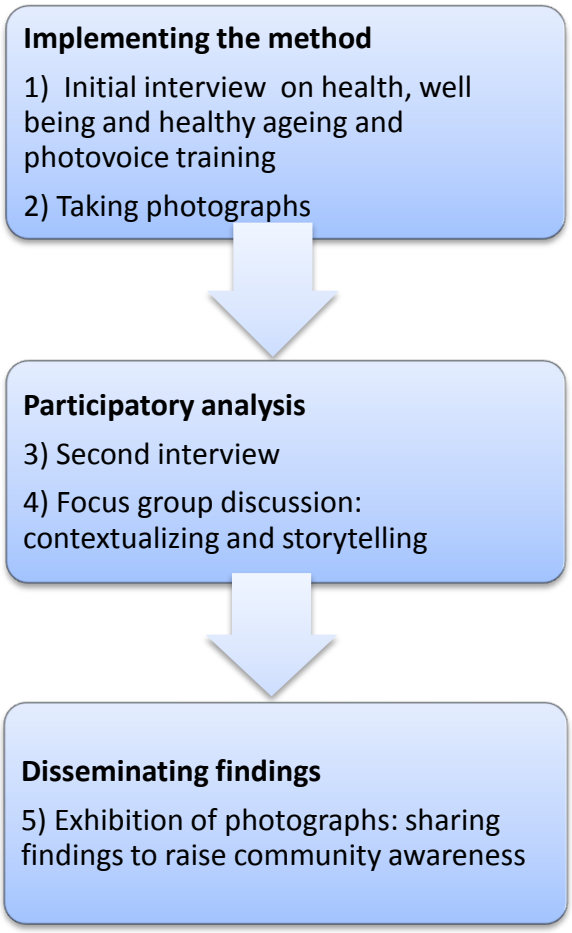


Figure 5: Flowchart of the phases of the photovoice process.

Each phase will now be explained:

1.) **Initial interview and training**: The first meeting of participants and researcher consisted of an explanation, a training if needed and an initial interview about older people's perceptions of health, well being and healthy ageing.

The background and aim of the study, the research method and ethical aspects related to photovoice were explained. In this explanation "health assets" were explained as "resources for health", which is more spoken language. Participants were also explained how to keep a journal on their pictures. Participants who were unfamiliar with digital cameras were trained in working with one. Participants with an own camera brought the device with them to make sure it was a digital one and that it was compatible with the laptop used during this study. The photo mission was given, namely '**Photograph resources for health of your life or community that help promote your health and well being'.** This was only a guideline, each participants could take pictures according to their own interpretation; a mission *'might expand, rather than limit, the perceived range of a community's assets*' (Wang et al., 1998; Wang and Burris, 1997, p. 378).

During the initial interviews participants were asked to describe what they perceived as health, well being and healthy ageing, since these concepts can mean different things to people. These questions were asked in order to understand what older people aim to achieve when using their health assets. The two questions that were asked to each participant were:

- What do you see as health and well being?

- What do you see as healthy ageing?

The interviews were semi-structured to provide opportunity to explore the perspectives of older people. Semi-structured interviews allow the interview to evolve according to the conversation between participant and researcher whilst still allowing for specific topics to be explored (Walliman and Appleton, 2009; Wisker, 2008). With permission of the participants the interviews were recorded. Finally the participants were asked to sign a consent form on participating in the research project.

2.) **Taking photographs**: The participants got two or more weeks to take photographs in their community according to their interpretation of the photo mission. They could use the university's camera, or their own camera. When people were photographed subject consent

forms were used to ask their permission. Participants kept a journal on the photographs they took, answering the following questions:

- Date and place of the photo.

- What is in the photo?

- What does the photo mean to you?

- Why was this photo taken related to the photo mission? (Why is this a resource for health?)

3.) **Second interview**: Once the initial interview was done and the photo mission was completed participants handed in their memory card with pictures. There was no maximum amount of pictures to be taken during the photo mission. However participants were encouraged to take pictures of at least four health assets, since this was the number of pictures per person to be discussed in the focus group discussion.
In a second individual interview all pictures were discussed. Again these interviews were semi-structured. The questions from the journal were discussed and missing entries were filled in. At the end of the interview the four pictures representing the most important health assets were selected by each participant; these four assets were most important to the participant and/or had most effect on his/her health and well being. By selecting pictures the participants decided the course of the focus group discussion (Wang and Burris, 1997; Wang et al., 1998).

4.) **Focus group discussion**: Focus group discussions (Walliman and Appleton, 2009) were chosen for phase four allowing participants opportunity to discuss each other's photographs in an open, supportive and non-judgemental environment (Marshall and Rossman, 1999). During this study two focus group discussions were held, each group contained five participants. Each participant's four previously selected photographs were discussed in the group to stimulate storytelling, contextualize the photographs and reflect on health assets together.

During the focus group discussion the researcher guided the group by using the SHOWeD method; a schedule of five questions to be answered for each photograph, originated from rootcause questioning by Wallerstein (Wang et al., 1998). For the first focus group discussion

SHOWeD was used, however since this was not particularly effective in eliciting responses the questions were modified and for the second focus group discussion SHOP was used (Table 2).

SHOWeD	**SHOP**
• What do you **S**ee here? • What is really **H**appening here? • How does this relate to **O**ur lives? • **W**hy does this problem or strength **e**xist? • What can we **D**o about it?'	• What do you **S**ee here? • What is really **H**appening here? • How does this relate to **O**ur lives? • How can this resource for health be **P**romoted for you and others?

Table 2: Sets of questions represented by the acronyms SHOWeD and SHOP.

During the group discussion the participants were also asked to write down the essence of the photograph, in no more than three words, that arose from the dialogue process. In participatory data analysis one photograph can have multiple meanings for people, therefore the photograph was coded, in this research with the essence, to get its meaning perceived by the group more clear (Wang and Burris, 1997). At the end of the focus group discussion participants were asked to select two out of their four pictures which best captured their views on assets for ageing well, to be displayed during the exhibition.

5.) **Exhibition of photographs**: For each photograph the researcher wrote a story, then twenty-eight photographs and stories (two per participant) were shared with the community during a public exhibition.

Usually the photovoice process has another phase, namely the phase of action planning and advocacy. In such a phase participants would meet again as a group and come up with action plans. Participants then decide what strengths could be promoted, what concerns could be addressed, what message they wish to send out to whom, how this could be done and which organisations, policy makers or influential persons could be approached to create change. Hereby they could become advocates for their lives and community (Wang and Redwood-Jones, 2001). Because of the limited amount of time available the author of this report was not able to carry out and report on this phase. However, local health promotion staff will take on this execution.

3.3 Study population, sampling and recruitment

A sample of fourteen older people living in Wrexham (UK) and the surrounding area were eligible to take part in the study. The sampling and recruitment strategy was a pragmatic decision; as the researcher was an intern living temporarily in Wrexham she only had access to public transport. Furthermore a stakeholder organization involved with older people advised that participants could not be expected to travel too far and would need to be mobile enough to access the town centre, since for safety reasons interviews were held in a public sector building and not at participants' homes.

Sampling criteria

Besides living in Wrexham or surroundings older people had to meet three criteria to become a participant:

- Age of 65 years or more, to capture older people with some experience of the ageing process.
- Perceive they have succeeded to age in good health and/ or well being and have a general experience of life as positive.
- Being able to commit the time and put in the effort needed to engage in the full research process (attend interviews, group discussions and be willing to work with a digital camera).

Sampling

Purposive and convenience sampling was used to for this study. Convenience sampling is not intended to be representative of the general population (Walliman, 2011; McQueen and Knussen, 2002). Nevertheless, this is consistent with the chosen study design (naturalistic, qualitative and interpretive) as the aim is to explore perceptions towards ageing well amongst older people living in Wrexham for the purpose of raising awareness of assets for health. Convenience sampling was also appropriate since resources (time and money) to conduct the research were limited.

Age Concern North East Wales (ACNEW; also known as Age Concern) helped in gaining access to the population of older people in Wrexham. Age concern is an organization that supports older people (50 plus) in the communities of Wrexham and and Flintshire, for example by organizing lunch clubs and activity programmes (Age Concern North East Wales, 2012). The majority of the recruitment

took place in different settings of group activities for older people organized by Age Concern in Wrexham. Though recruitment also took place in exercise classes and prior to a monthly meeting of U3A (The University of the Third Age) at Glyndŵr University.

3.4 Analysis

The photovoice process produced three sets of data, which resulted from the three occasions on which participants and researcher met. These sets of data were analysed and created three sections of findings. Figure 6 provides an overview of the occasions on which participants and researcher met and the three sets of data and findings that were thereby created.

Figure 6: Three meetings of researcher and participants and the subjects of the three sets of data and findings.

All recorded interviews and group discussions were completely transcribed. The analysis of the initial interviews was done by thematic content analysis; the transcripts were coded with recurring themes or topics. The analysis was inductive; the coding scheme emerged from the data by reading through it and comparing participants' perceptions while searching for the main themes and topics.

The second interviews were analysed per photograph; for each photograph a story was created containing a summary of the information in the transcript. In the report findings focus on each participant's four most important pictures and elaborate on the two pictures that were eventually selected for the exhibition.

The focus group discussions were also analysed per photograph. For all photographs the view of the group was summarised, the essence of a picture as described by the participant was used as a guideline on what was important. In the report the findings were limited to the six pictures which elicited the most rich discussion and really added new information to the previously collected

datasets. These photographs were selected for generating much response, new perspectives, much agreement and identification or a variety of views.

Key themes of older people's health assets were derived from the second interviews and the focus group discussions. All health assets were listed, interrelated assets were grouped together and named by an overarching theme, like 'social health assets'.

An overview of findings was created in a table which shows the key themes and sub themes of all three sets of findings. This table was created by using the headings and summaries of the findings on health and well being, healthy ageing and health assets. Themes were put in the right column, for example during the interviews on healthy ageing participants mentioned some aspects of health and well being. Thus the findings were brought together and divided into the right columns to create a logical overview of the input (assets), process of healthy ageing and the output (health and well being).

The data has been handled confidentially, for example participants could choose whether or not they wanted their names to be linked to the photographs and stories at the exhibition. The data was processed anonymously during the study, the names of participants did not appear in any report.

3.5 Ethical issues

Ethical issues that play a role in the photovoice process, mainly image ethics on the conflicting freedom of expression of the photographer and the privacy of the photographed subject (Appendix 1), were addressed in this study. Participants were made aware of ethics during the initial interview and training. Participants were told not to take any risk during the photo mission. Furthermore, during the study participant consent forms and subject consent forms were used and verbal permission was obtained for displaying the pictures during the exhibition and in any report.

4.) Findings

This section will discuss the findings of the study. First the findings of the literature research on present photovoice studies will be discussed. Then the findings of the fieldwork will be presented, in which first older people's perceptions of health, well being and healthy ageing will be described. Second, older people's health assets will be described. Finally, the joint reflection of older people on health assets will be described.

4.1 Previous photovoice studies

The literature review resulted in seven studies that used the photovoice method with older people. Six of these studies focused on a problem or issue: (1) perceptions on promoting and protecting factors and barriers to cardiovascular health among older Asian immigrants (Fitzpatrick et al., 2009), (2) chronic pain experience in older adults (Baker and Wang, 2006), (3) older adults' conceptualization of risk (Rush et al., 2012), (4) the strengths and concerns of the physical and social environment that influenced older adults' physical activity in two metropolitan areas (Mahmood et al., 2012), (5) the leisure experience of older women before and after diagnosis with HIV/AIDS (Gosselink and Myllykangas, 2007) and (6) experiences of older people with Alzheimer's disease (Wiersma, 2011). The seventh study focused on strategies of well older people, living alone in an urban area, to create and maintain social participation (Andonian and MacRae, 2011). In this study photovoice appeared to be a suitable method to collect data; older adults were able to describe and show their needs and ideas on how to create and maintain social participation when ageing. A visual method like photovoice was very suitable to study the experience of social participation and its context (Andonian and MacRae, 2011).

Recently photovoice has been used to create positive images of ageing to disprove stereotypes about older people. The researchers concluded that photovoice is an effective tool to reveal older people's perceptions of their community, voice their unique concerns and to challenge stereotypes by identifying positive strategies for change. Photovoice was experienced to be an effective vehicle for expression to facilitate rich discussion (Ronzi and Kennedy, 2012).

Photovoice had not been used before to investigate health assets of older people by taking an asset approach.

4.2 Older people's perceptions of health, well being and healthy ageing

This section will discuss older people's interpretations of health and well being and their interpretations of healthy ageing as out tuned in the initial interviews. The initial interviews for data collection on this topic took place during the whole month of November 2012.

4.2.1 Older people's perceptions of health and well being

Participants' views on health and well being revealed a range of diverse themes:

Physical aspects and health care

Many participants referred to physical aspects when explaining their interpretation of health and well being. A healthy diet, physical fitness, enough sleep, having no pain and having a well-groomed appearance were mentioned. Related to these physical aspects some of the participants mentioned the use of health care.

Healthy diet

For several participants well being and health had to do with having a regular, good appetite and paying attention to what you eat. Eating healthy food, eating enough, but not too much and managing weigh by eating less sugar and fat were mentioned.

> "*Good health is to eat healthy*."(JD, female, 80)

> "*Diet is important, eat the right food*." (FH, female, 71)

Physical fitness

Exercise was mentioned by several participants to have a beneficial effect on health and well being. The participants do different types of exercise, like swimming, walking and exercise classes. One participant explicitly mentioned keeping active as part of a lifestyle that will keep you healthy. Several participants mentioned that the exercises do not have to be tough, gentle exercise is enough to keep you fit.

> "*Gentle exercise to keep you fit, but not too much, so don't run on a treadmill. Gentle exercise keeps you moving and once you have done it, you feel better.*" (PW, female, 66)

> "*And don't sit in the house, just go for walks or anything.*" (JH, female, 66)

Sometimes exercise was mentioned related to physical health problems, like arthritis or new knees.

> *"…I was in an awful lot of pain. It is arthritis…. Last July I had a complete new knee, which means that now I am more mobile and that is why you find me at the swimming baths, because I am determined to stay mobile."*(VC, female, 71)

Enough sleep

Sleep is another physical aspect mentioned to be important for health and well being.

> "*Being sensible about sleep; sleeping enough and going to bed on time."*(PD, female, 80)

No pain

Pain was mentioned by some participants. To them not having pain is a precondition to see themselves as healthy.

> "*Having no aches and pains…*" (GT, male, 81)

> *"… I am actually not healthy, I would love to wake up in the morning without pain, I do live on painkillers, because I am in pain all the time."* (JW, female, 87)

Well-groomed appearance

To have a well-groomed appearance is another aspect of physical health and well being. To look good helps some of the participants in having a sense of well being.

> "*Choosing clothes that suit your age, so no short skirt. And choosing shoes that suit your feet*." (GD, female, 80)

> "*Take care of yourself, just have your hair done and not just sit and say 'Well I am old and that's that' you know.*" (JH, female, 66)

Using health care

Related to physical aspects of health and well being some participants also referred to health care, like the doctor, the dentist and the chiropodist.

> "*Health is something the doctor does for me*." (DL, male, 75)

"*You should have a decent doctor and a decent dentist. If your doctor and dentists are not good it will affect you and your health.*" (PW, female, 66)

Social aspects

The importance of social contact to health and well being was a common theme. Social aspects are the need for social contact, social activities, a network of family and friends and faith based social support.

Need for social contact

Some participants emphasised their need to go out and meet people to their health and well being. Participants referred to being a people person and meeting people is what keeps them healthy.

> *"I like to go out and meet people, I hate staying in the house for any length of time, so I do like going out meeting people."(*AJ, female, 68)

Social activities

Several participants have social contact by engaging in social activities. Social activities can be going to an exercise class, singing together in a choir, going to activity sessions for older people, attending meetings with former colleagues, being active within the church and volunteering in the hospital by showing patients where to go. All these activities are appreciated for the social contact the participants have with other people when doing them. One participant specifically emphasised the importance of belonging to a group.

> *"I think the beauty of doing those things is you meet more people and you make more friends. We find ourselves socialising after class, going for tea and coffee in the little café in Waterworld."* (ER, female, 79)

> "Belonging to something is very important I feel. This is what I say to all youngsters that I meet: join something." (MR, male, 83)

Network of family and friends

Social contact can also be created by meeting friends and family. Friends can provide pleasure and social support. One participant referred to the organization Age Concern that gives her social

support. Friendships can exist between the participants and perhaps unexpected others, like the staff in the supermarket or the cleaning lady.

> *"It is very important to have friends to support; the support goes in both ways."* (PD, female, 80)

> "*I am an Englishman in Wales, so I have no family around. … But I do have a cleaner, a lady comes to clean my house weekly. She is like extended family. I am always looking forward to it, it keeps my spirit up. … I like going out, I go to Asda every day. There is some life there. The staff is very friendly, they are very helpful and they are always chatting to me when I go to the check-out. They know me.*"(DL, male, 75)

When talking about family most participants mention their grandchildren and/ or great-grandchildren. Family gives pleasure and there is reciprocity in giving and receiving support.

> *"I am very lucky I have a large family, I have five children and twelve grandchildren. The youngest is four, she keeps me very happy. … My whole focus in life is to help my family to be able to get on with their lives and please God may their lives go smoothly.*" (VC, female, 71)

> *"… obviously friends and your family form an important part of your health. … I get a lot of pleasure from the grandchildren. I think they keep you young."* (FH, female, 71)

Faith based social support

Several participants are active in their churches, but one participant specifically mentioned getting support from her faith.

> *"And I have a very strong faith too, I believe that God helps me in everything I do."* (VC, female, 71)

Coping and adapting

Coping with any difficulty you face as you are getting older was mentioned by several participants. Participants referred to problems they had and how they adapted themselves to these problems or how the problems were solved. To most participants it is important to just keep going and cope with any difficulty on their way as they age. They do not want to give up, they want to try their best to live the life they are used to live and adapt to new situations. For example a participant with difficulties to move her limbs has changed her bath room into a wet room with a seat and no longer

wears clothes with zips or buttons to make the daily activities of washing and getting dressed easier. This lady also still works in a bookshop, but no longer does the heavy work of stocking the shelves, she is just the cashier now. Another lady who suffers from light depression copes with that by keeping up her interest in exercise classes, because they make her get out of bed and feel less depressed.

> "*Well, being able to cope in general, without being a specialist. Being able to cope with whatever, being prepared, being resilient enough to want to have a go at it…*" (RM, male, 83)

> *"I think you have got to make the most of what you have got even if you have got a complaint or anything, you just got to get on with it. I have had two operations of breast cancer, but I went back to work after and carried on. And when I retired last year I have replaced my knee, but after a while I just go on with that, I do carry on…. Work your way around a situation, no matter what the obstacle is. So just cope with it."* (JH, female, 66)

Related to coping with any problem or situation is having a positive attitude. Several participants mentioned that a positive attitude is important. However some participants also mentioned that their attitude has changed, because they have experienced things can go wrong and/or realize things might go wrong in the future related to their health. They have an attitude of awareness and therefore try harder to stay active and healthy or more consciously enjoy their own current good health. An attitude of positivity and awareness is part of these participants' perceived health and well being.

> *"I think you should have a positive attitude, looking at the bright side of things instead of being miserable."* (PW, female, 66)

> *"The way I see health now is different from ten years ago. In the way I think that you realise that you can get ill and things can go wrong. Just over five years ago I had breast cancer, so you start to take a different look on life when that happens. I have also reached that age group where just in the recent six weeks my husband and I have lost good friends in a similar age group to myself. It brings it home. So that is another reason why I want to stay as healthy and fit as I can."(*ER, female, 79)

Independence and mental fitness

Mental fitness relates to a healthy mind. One participant sees mental fitness as the ability to cope with whichever, others see mental fitness as keeping the mind active by for example doing

crossword puzzles or reading books. One lady referred to her fight against depression in the morning when talking about mental fitness. Some participants talked about the relationship between mental and physical fitness. One lady said that they go hand in hand and that a healthy mind quite often means a healthy body, while another lady sees a healthy mind as more important than a healthy body.

> *"But I read a lot. I do crossword puzzles and anything to keep the mind busy"*(JW, female, 87)

Two participants articulated a big aversion of being taken care of and not living independently. They do not wish to be looked after and one of them explains that mental fitness is therefore very important.

> *"There is no use to having good health or anything if you are not absorbing it. … I certainly would not wish to live in a state of health where other people would have to do all your basic functions, I don't think that is existence and there is nothing to be gained by it. If you have got your brain at least you can enjoy life to some extent."* (MW, male, 80)

Engagement in life

Another interpretation of health and well being is engagement in life. This relates to the need to go out and to keep an interest in activities and in what is going on and keep yourself motivated to do things. Participants say interests and hobbies keep you busy and prevent you from just sitting down and doing nothing. Several participants mention that they rather go out than watching TV or sitting behind a computer screen.

> *"Keeping yourself busy. Even though I have bad legs and a bad heart I keep busy. You have to go out and not just watch TV."* (DL, male, 75)

> "*Having plenty of hobbies and interests. You should not sit down and do nothing, so have a hobby*." (PD, female, 80)

Summary – Older people's perceptions of health and well-being

Physical aspects are important to health and well being, like a healthy diet, physical fitness, enough sleep, having no pain, having a well-groomed appearance and using health care.

Social aspects, like feeling the need for social contact, doing social activities, having contact with and support of a network of family and friends and having faith based social support also influence health and well being.

Coping and adapting influence health and well being. People cope with difficulties on their way as they age by adapting themselves and having a positive and realistic attitude.

Mental fitness is important to health and well being, this relates to keeping the mind active and being mentally fit enough to live independently.

Finally to stay engaged in life is important to health and well being as people age, this relates to keeping yourself busy with hobbies and interests, remain motivated to do things and go out.

4.2.2 Older people's perceptions of healthy ageing

Participants' views on the process of healthy ageing revealed a range of diverse themes:

Stay active

Staying active has to do with keep going and doing activities, having interests, keeping the mind active and remaining mobile.

Keep on doing activities

Many participants referred to keep going and doing activities as their interpretation of healthy ageing. Several participants talked about all the activities they still do despite their age or physical problems, like singing, dancing, going to all sorts of clubs or meetings, getting out and about, knitting, swimming, doing crosswords and gardening. Going out and doing activities is preferred over just sitting in the house and doing nothing. Next to these activities the basic things are also mentioned, like still being able to walk and doing household tasks.

> *"Healthy ageing is about getting out and about, you should do things."* (PW, female, 66)

> *"To be able of doing the basic things of gardening and walking and going down to fetch your paper or do your shopping in your own time is very important."* (MW, male, 80)

Having interests and retain mobility are aspects that help in staying active. Several participants mentioned that you should keep on having interests as you get older and should try to stay mobile.

"*Well, I paint. I am an artist. I think you must have an interest*." (VC, female, 71)

"We have got a car now. … Mobility is you try to hold on to your car for as long as possible." (MW, male, 80)

Keep the mind active

Being active does not only apply to the body, but also to the brain, keeping the mind active was mentioned by several participants.

"The mind needs to be stimulated with friends, activities and things like that. Keep your mind active; learn new things and get out of your comfort zone. … I mean there is lots of things that I still want to do, I would love to go hot air balloon..." (FH, female, 71)

"I love to do the Sudoku. … So it's keeping your mind busy with a puzzle." (VC, female, 71)

Approach ageing in a positive and realistic way

A recurring interpretation of healthy ageing was the way people approach it, more specifically having a positive and realistic approach to ageing. This relates to older people's attitude, stepping back if needed, being prepared for old age and coping with life's demand.

Attitude

Several participants mentioned that being positive is an important aspect of healthy ageing. You should have a positive outlook and not focus on what you cannot do anymore, be angry or feel sorry for yourself and moan. You should be positive, focus on what you can do and realize that things could be worse when looking at others.

"*Healthy ageing is having a positive outlook on life and not letting things get you down. Because when you do let things get you down, you will just sit, not doing anything and your health will deteriorate*."(PW, female, 66)

"*You should not be limited, age is only a number. … Don't let it stop you. If you want to do it, do it, that is my attitude.*" (FH, female, 71)

However some participants also mentioned that next to being positive you also have to be realistic. You have to realize and accept your limitations as an older person and know that you cannot always be in control.

"But as I say I know that occasionally I have health issues. I want to be in control and I want to cope with those issues. And that is a difficult area because you also have to learn that you can't always be in control." (ER, female, 79)

"Realizing your limitations as an older person. I know I cannot do things anymore, like putting my own wallpaper on the wall." (GD, female, 80)

This realistic attitude results in older people stepping back if needed, stepping back was mentioned several times to influence healthy ageing. When you get older there are things you cannot do or do not want to do anymore, like heavy work in the garden, driving a car for long distances or on the motorway and being busy with many activities.

"*…that won't be good for my mental health if I don't be careful on when to slow down and step back and when to say no. … Because I have got to learn the lesson that if I am unable to do something there will be somebody else there to do it*." (ER, female, 79)

Being prepared and cope with demand

Being prepared for old age and coping with the demand is another approach to healthy ageing mentioned by some participants. Being prepared relates to saving for your pension and planning the house and the car. One participant mentioned that he and his wife moved from the coast area of Wales to Wrexham to be closer to a good hospital and facilities in case anything would happen to their health, like a heart attack. Another participant mentioned that healthy ageing depends on life's demand on you.

"If you have a heart attack at the coast or have to have a new knee you have to go an awful distance and the roads are not that good. … There is always a chance you don't get there in time and in any case an ambulance station is always a long way from anywhere you are." (MW, male, 80)

"*What healthy ageing is, depends on what is expected of you physically in life isn't it. … I think healthy ageing is studying the need and taking care. So studying whatever sport or demand and then sensibly doing it.*"(RM, male, 83)

Stay in social contact

A recurring interpretation of healthy ageing was to stay in social contact. This relates to social contact, helping others and faith-based social support.

Social contact

Social contact relates to having somebody who would notice when you are ill, having company and conversation, honestly sharing thoughts and feelings with friends and keeping in touch with friends and family as much as possible.

> *"…as you are getting older is to try as much as you can to keep in touch with friends. You know, so that you have got contact and people you can talk to. Even if it is only meeting now and then for a cup of tea and a chat. … I think perhaps quite a few older people don't see anybody from one week to the next and I don't think that does anybody any good."* (AJ, female, 68)

Helping others

Helping others is mentioned by some participants. When you help others you might realize that things could be worse, you have an interest in others and make somebody happy.

> *"I like helping people, if anybody needs any help… You have got to keep an interest in life and not just yourself. You have got to be interested in others, I love people."* (VC, female, 71)

Faith-based social support

Support can also be received by having faith; going to church and feel supported by God helps some participants.

> *"… I think a Christian faith is very important. It supports you, for example after I had a stroke I was not worried, because I knew I was not alone.*" (PD, female, 80)

Physical aspects

Several participants interpret healthy ageing in terms of physical aspects. They mention having no pain, sleeping well, appetite, diet, exercise, appearance and taking care of your feet. One participant mentioned that there is no such thing as healthy ageing, because most older people have physical health problems, including herself.

> *"Making the best of yourself in the way of appearance. Doing reasonable amount of exercise. Going to places like the chiropodist. Your feet are important, when your feet are not well*

then you cannot do things. Going to the dentist and the hairdresser. Going to the beautician is an extra…" (PD, female, 80)

Summary – Older people's perceptions of healthy ageing

Healthy ageing relates to staying active; keep on doing activities, having interests, staying mobile and keeping the mind active is important.

Approaching ageing in a positive and realistic way influences healthy ageing. This relates to having a positive and realistic attitude, stepping back if needed, being prepared for old age and coping with life's demand.

To stay in social contact is important to healthy ageing. This relates to social contact, helping others and faith-based social support.

Finally physical aspects influence healthy ageing, like diet, exercise, appearance and sleep.

4.3 Older people's perceived health assets

This section will present older people's perceived health assets by means of photographs and stories. Interviews to collect data on this topic took place from late November until Christmas 2012. The number of photographed health assets varied from four to ten. This section will report on each participant's four most important photographs and will elaborate on each participant's two photographs that were selected for the exhibition.

Photographs of health assets selected to be exhibited and thus experienced as most important showed the importance of family, friends and other company, hobbies and activities (especially gardening), faith and the church. All participants, except one, selected at least one photograph related to contact with family, friends or other company. The majority of the photographs at the exhibition reflected hobbies of participants or activities they go to, like reading, painting, knitting, a lunch club, a choir, a music club and exercise classes. Older people's interest in gardens and gardening was reflected in several photographs at the exhibition, like photographs of the garden centre, raking up the leaves and a public garden. Five photographs at the exhibition were related to the church and faith, like a photographs of a church choir, taking people holy communion and the result of a girls brigade session held in a church.

The health assets are shown in blue in the text. For each participant first the two important photographs that were not exhibited will be briefly discussed, followed by a more elaborate discussion of the two important photographs that were exhibited.

PW, female, 66

This picture was taken in a coffee shop in Birkenhead. Every Monday PW drives down and shops and has lunch with her daughter in law. Sometimes her youngest son or the grandchildren join. In Wrexham, PW's place of residence, only her stepdaughter lives near, so PW enjoys going out to meet the family that lives away. She discusses problems with her daughter in law and going there for the day keeps her active: she has to get up, get ready and go out.

These are folders that contain family history. After her retirement PW started to fill in family branches by visiting records offices and using the internet. She found out her grandfather had eight brothers and sisters instead of the assumed two and has been in touch with some of them. Finding out where she is from gives PW a lot of satisfaction, because she is an only child. It also keeps her mind active and she meets people when trying to find things out and now has some new family members.

This is the car of PW's middle-son that she uses, because he is often away for work in Oman. The car enables PW to visit family and go to the supermarket in an easy and comfortable way which is better to her than using public transport. The car enables her to have social contact with family that lives away. The washing and vacuuming of the car also keeps her joints going, so there is a physical health aspect involved as well as a social aspect. *"A car means freedom to me, I can get in it and I can go visit family down in Northampton or over in Yorkshire or up in Scotland. I can gó. If I didn't have a car it would be a lot more difficult cause I would have to figure out which train to get and then I would be carrying luggage on and off; so a car means a great deal of freedom to me. It is a lot easier than public transport, I just have to get in my car and go."*

PW has a computer that she uses to keep in contact with family who lives away. She keeps in touch with family abroad in Ireland, Oman, New Zealand and The Netherlands, but also with family in Yorkshire and Harlech (UK). She gets school reports from the children and pictures of the family by email. Part of the family gets together for weddings and funerals, but apart from that the computer is the way to keep in touch. Keeping in touch by using the computer makes her feel happy and connected. PW also uses the computer to play games and she has to concentrate when

using it, so it also keeps her brain active. After retiring she thinks the brain is not used so much and this is a good way to stimulate it.

GD, female, 80

This is the flowering jasmine in the garden of GD. The garden keeps her in contact with nature and that has a healing quality according to GD. In the dark winter time the flowering jasmine gives some colour and reminds you that spring is coming. GD loves gardening and planning what she is going to plant and it makes her look forward to something all the time, which she thinks is very important.

This is GD looking at a photograph album. She has albums of her life story ever since she was a baby, they were kept religiously. Looking at them is nice, it can be a bit nostalgic, but it gives pleasure. It reminds her of places she has visited and people she has met and it is good to look back now and then.

This is the fireplace at GD's home that she shares with her twin sister PD, this is where they sit mostly. "*I think perhaps this is the most important place for me, my home*." It is a place where GD feels accepted and loved. She gets along with her twin sister very well, so it is a stress free environment and she is not expected to say or do anything when she does not want to so. The two sisters have lived in this house for more than seventy years now, they grew up here and the house holds a lot of memories.

This is the result of a weekly girls brigade session existing of a group of seven and eight year olds that GD supervises in Trinity church in Wrexham. The children made a pattern of autumn leafs by arranging and colouring leaf templates made by GD. She likes to encourage youngsters to plan what to do with the given material and to have a sense of pattern and neatness. *"It is one of the skills I have got that I am still able to use effectively with this age group. … I enjoy working with this age group and it encourages me as well to plan and think about what can I give them that will be attractive to them and create enthusiasm."* GD feels it helps her too, it keeps her alert and willing to

learn from the children's fresh ideas, like using multiple colours for one leaf, GD herself wouldn't have thought of that.

PD, female, 80

PD is the conductor of a choir and after each rehearsal there is a special moment of prayer. In this photograph PD leads the prayer and thanks God for the talents and loyalty of the choir, remembers any choir members in trouble and asks for guidance for the coming week. PD thinks it is very important to speak to God in order to maintain her relationship with Him and it calms her to put sorrows and anxieties in His hands.

PD cycles up and down the pool in DW Sports and does exercises at each end of the pool, after which she does a bit of swimming. This is very important to her, she has got arthritis in her knee so exercise is good for her health. "*My doctor always asks me: Are you still swimming?*" Exercise makes her less stiffened, experiencing less pain and keeps her moving and mobile. "*It is doing something positive for yourself,*" since it is beneficial health wise and you got to have discipline to go there every day.

This is Kate, a very dear friend of PD and GD for more than fifty years. Kate just celebrated her 86th birthday and lives in a big house in Nottingham. When they go there PD and GD know to expect lots of chatter, laughter, good food and to stay over. PD thinks Kate is a visionary kind of person, she has done a lot of charity work in Romania with the orphans to learn them to appreciate and take part in music. *"It means that I realize how important friends are, particularly if you haven't got any family. … She has a lot of love to give to everybody, she is supportive to a lot of people."* It is very valuable and precious to keep a friendship going for such a long time, though it can be hard work.

In her youth PD used to be a semi-professional soloist. She now weekly conducts the choir of Trinity church in Wrexham which has about 30 members. "*I feel that I am very fortunate that in my old age now I have had the joy and the privilege of taking this choir in Trinity and I love every minute of the rehearsals. We have lots of laughs, sometimes I talk too much. But it means I can continue to do music."* PD feels

that all music is therapeutic, it makes you feel better and it can be soothing. She therefore thinks music is a very powerful gift.

JH, female, 66

This JH's grandson, he is twelve years old and wants to be an electrician. JH also has two granddaughters. Every Sunday they come up for tea and once in a month they come for dinner. JH looked after them since they were children and is interested in what they do and where they go. She does a lot of activities with them, all sorts of things, when they were younger they would make cakes and sew things. They also go out together, the children sometimes ask JH if she can take them here or there. "*So they keep me active, especially when you got to go outside and play badminton with them.*"

These are JH's cockatiels Charly and Jack. She has had birds for fifteen years now. The birds play and eat peanuts, when it rains they go to sleep, but when the sun comes out they are chirping away. The birds are an interest of JH, they cheer her up and she has got to take care of them. "*Well they mean a lot, I love my birds, I love all birds really. I talk to them all the time, they can talk back. Jack will say 'all right' when you go into the kitchen and Charly will say 'what you doing?' and they will whistle for hours when you start to whistle to them. So they are nice company."*

This is JH with her friends in the swimming pool of Waterworld in Wrexham. Together they learned how to swim and they go for one hour every Monday morning. One lady clocks the time and counts the strokes, she encouraged JH to move her arms, so JH can swim now. "*I started when I was 60 and then had to give up for a while because of my knee and so it has taken me five years in January to learn to swim.*" Swimming lessons are free for older people. The ladies go for a swim and have a chat, so it is good for socializing and exercising. "*It is socializing and it is active and it is something we all enjoy. We really enjoy going on a Monday. We are all there…*"

This is the heated greenhouse in JH's garden where all the fuchsias and geraniums will stay during the winter. The plants are taken out of the garden, the leaves and flowers are stripped off, they are cut back,

packed tightly into pots and put in the greenhouse, because otherwise the frost would kill them. In the late spring they go back into the garden, it takes a lot of physical work to do this. JH likes looking after plants and loves it when they flower, she doesn't like it when winter is coming and she has to put her plants away. "*So it's physical exercise and having an interest, a hobby really. I just love flowers and taking care of them.*"

JD, female, 80

This is an ICAN session, an activity day for older people organized by Age Concern in Bethel Church in Wrexham. It is a monthly event with a hot lunch and activities like games, crafts, a snooker table and a lady from the museum who shows things. JD does not want to sit at home now that she is retired, she wants to learn something new every day, keep busy, meet people and go out, that is why she enjoys ICAN so much.

This is the children's choir with juniors from Acton Park school in Wrexham. They were singing Christmas songs and carols after all people at the ICAN session had a hot lunch. JD enjoys music and it affects her health, because it makes her happy and not dwelling on things like her painful hip and shoulder. JD herself also sings in a choir, which she loves to do.

This is a picture of a lone swan taken during a coach trip in Ireland. Swans live in couples, this one probably lost its partner and broke its heart. JD thinks swans are amazing animals; they have such a temper and a huge wingspan. "*I just love animals and they are an interest of me .. I am fond of nature.*" Doing things like going on a coach trip and enjoying nature gives JD a feeling of well being; it makes her feel better and she thinks that prolongs your life. Nature and going on holiday gives pleasure and it gives her an uplift.

This is the entrance of garden centre Strikes where Santas were singing and making music. They played fantastic music, like Frank Sinatra and they had movement, it was enjoyable to watch. JD's grandson who is ten years old and came with her was fascinated with it. JD often goes to garden centres to watch Christmas displays and thinks Christmas is quite exciting. "*It's so busy and so lovely, I couldn't miss it really."* Now that she is retired JD enjoys nice things, going to places and

learning something new every day. When you go to the garden centre every year you will learn and see different things, there is always an improvement or an addition.

GT, male, 81

This is the monthly meeting of 'BICC retired employees and associates.' They have a talk by a lecturer or organization and do a raffle at the end, of which the proceedings go to the organization. Prior to the meeting there is a committee meeting to run the club, GT is the treasurer. This gives GT a responsibility and a job to do, it is an exercise in mathematics as well. GT also likes to socialize here, he lives on his own and talking to the people in the meeting helps him to stay healthy.

This is GT walking down the street outside his house. Because of deteriorated eye sight GT does not drive anymore. He could get taxi's or chariot busses more often than he does now, but he feels that he should exercise. He walks from his house down the road to the bus stop or to meetings. However it is quite a hill and he is careful not to slip or fall especially when there is frost.

This is a lunch club in an Evangelical church in Borras (Wrexham) that is held every fortnight. GT walks to the place, which gives him exercise. He made new friends there and enjoys meeting different people and socializing. GT always cooked himself and quite liked doing it, but since his eyesight deteriorated he lost a bit of interest in cooking. The food does not have the same flavour anymore, it sometimes tastes blank. Going here means he gets a meal that he does not have to cook himself and he enjoys the food here. "*I go there to enjoy the company and the food*."

This is GT in Sainsbury's in Wrexham where he goes with his daughter every week. For daily things like bread and milk he goes to a local store, but his daughter driving him to Sainsbury's enables him to get other things. It is not just about stocking up food, it is also enjoyable, since GT sees his daughter. GT tries to get fruit and vegetables, because he thinks a well balanced diet is essential to good health. However because of deteriorated eyesight and a loss of interest in cooking he has been trying ready meals from different stores. Some meals were not so good, others were delicious. "*I try everything to create a balanced diet.*"

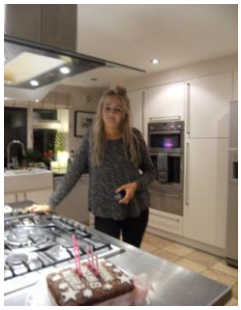
RM, male, 83

This is RM working on a watercolour painting of a Volkswagen camper for his daughter in law. RM has painted all his life, has a house full of paintings and also taught art. Painting has a calming effect since RM gets absorbed in the picture. It is good for his memory, since he sometimes paints from memories. A lot of grandchildren and great-grandchildren also paint, it is joint happiness. However RM has not been painting recently because of shattered nerves after an operation on his wrist.

This is the swimming pool of Plas Madoch Leisure centre. RM used to work here as a sports officer to organise competitions and his office looked down on the swimming pool. RM occasionally goes here for a swim and wants to join a free swimming class in Wrexham. Swimming is social, fun and exercise. *"Exercise is important, the first thing to which you could credit growing old and being able to do it with any confidence, happily and with some sort of ability."*

These are two great-grandchildren of RM riding a horse. It shows continuity and family tradition, since this is the fifth generation of the family that is involved in horse riding. "*…it is a lovely binding thing in the family, it goes on forever."* Horse riding gives some exercise, but is also a social activity, it gets the family mixed up in the community. RM learned to ride in the army, but does not ride anymore. "*I go see them ride, the little children … I take pictures of them. It gives me a tremendous amount of pride and pleasure … It is a source of social contact and pleasure for me as well.*"

This is RM's wife making a scarf on a weaving rack while one of the great-grandchildren is watching her. It started with a little loom, which she enjoyed so much that she was given a bigger one and now she can make scarves or table cloths in a few days. It keeps the family warm in the winter as all children are wearing hats she made, it saves them buying the things that she can make herself. One granddaughter is also selling hats that RM's wife made on the internet. "*Growing old cannot only be credited to physical fitness, these skills are also important*." It illustrates the need of general knowledge and calmness. She is being helpful and it keeps her busy. Furthermore it brings satisfaction and relaxation, because she is so relaxed when she is doing it. RM finds it lovely to see this in the house, it is peaceful.



VC, female, 71

This is a cake VC made for her granddaughter Natalie's birthday. This is VC's job in the family, she makes all birthday cakes. It makes her feel involved in all the birthdays in a special way, it connects her with family, keeps her busy and makes her feel useful and happy. Making cakes requires creativity, but also concentration, you have to think about it. VC thinks it is very important that she can still do things to help people.

This is VC's car. She uses it to bring her grandchildren to school when they are late getting up. The car makes it easy to go shopping, because she does not have to walk carrying bags. Having a car gives VC mobility and independence, she can get herself from A to B without bothering anyone and she can help her family.

This is St Mary's Cathedral in Wrexham after the mass on Sunday evening. "*My faith means everything to me really. It means I know that I have someone who loves me, not just my family, but my Lord loves me too. That is his house and I love to visit*." Her husband has been a deacon for more than thirty years, so faith means a lot to him too. They go to church together most days at 12 O'clock and then have lunch, so it is not just on a Sunday. Faith is strengthening, VC grew up with it and would feel very empty without it.

VC has been painting for fifty years and usually makes watercolours, though this is an oil painting done with a pallet knife. She loves to paint and loses herself completely. "*I don't worry about anything when I am painting you know, nothing exists but me and my painting and what I am doing. So you get away from everything. I am thinking about what I am doing and I am excited about what I am producing.*" Painting is an interest of VC that keeps her busy, it is satisfying to do and makes her happy. It also makes others happy, since VC usually gives her work away to others, people can also request a painting of a certain image.

AJ, female, 68

This is AJ doing the crossword in the Daily Post. She tries to solve it without help from her gadget, which is a crossword solver. By doing this AJ hopes to keep her brain active and thereby delay or prevent

Alzheimer's disease. Her reading is light and doesn't take much effort, so she does this puzzle especially to keep her mind active.

This is the warming up of the exercise class AJ goes to in Waterwold studio in Wrexham. She started going to the exercise class on a doctor's referral in September 2011 just after her lymph nodes were removed. After the operation AJ couldn't get her arm up, but now she can move her arm properly again, so the exercises have improved her arm. She enjoys doing the exercises and feels proud every time she has done it, it gives her a sense of achievement that she is able to do it.

This is AJ in her front garden gathering up the leaves. In autumn this job has to be done very often, since the leaves from trees on the road and Acton Park also come into the garden next to the leaves from their own small tree. It is a lot of work, it gets her out and the physical activity keeps her and her husband fit. "*I enjoy being in the garden and it gives pleasure when you see it looking nice. … I get enjoyment and pleasure from it and it is exercise. And let's face it: when you are doing something you enjoy that is good for your health and well being.*"

This the 'Piccolo's group' for toddlers up to the age of three on a Thursday in the St Giles Church in Wrexham. AJ takes her grandson Oliver there whom she babysits on a Thursday. They play with all sorts of instruments and sing songs for half an hour. It keeps AJ active, the things they do give her some exercise, like getting up and down. Then there is a refreshment and the children do games or play with toys while the ladies are chatting. Oliver and AJ enjoy going there, it gives them both a lot of pleasure. AJ is the only grandmother there, the rest are young mums. The chatting session makes her think back of when her children were little and she gives the young mums advice when they have questions or issues, it feels good to be able to help them. AJ thinks this social aspect is very important when you get older, you should go somewhere and meet people.

JW, female, 87

This is JW's cleaner standing next to her new chair. The cleaner comes in weekly, looks after the house and does anything JW asks her to do. Any other time JW can also ring her and ask her to do something, JW thinks she is excellent. If JW would not have the cleaner's help, she would end up in care and she

prefers to be independent. The chair is the best thing JW ever bought besides her car. The chair can get JW's legs above her heart, which takes the pressure of her enlarged heart for a while. She has to do that each day for half an hour. It has massage and heating and is so comfortable that JW sometimes spends the night in the chair.

This is JW's small car, after her husband's death she swopped the big car for this one. The car has parking sensors and is quite high so that JW can easily get in and out. Without the car JW could not live the active life she lives now, since the village where she lives has a very limited bus service. There are only two or three busses a day, while JW likes going out and thinks she would commit suicide if she would have to sit in her house all day. So without a car JW would have to leave her house. The car means freedom to JW and enables her to get out of the house.

This is JW lifting weights at the Waterworld exercise class where she goes every Friday afternoon. Next to lifting weights they also do steps, side steps, squashing the Pilates ball, pushing against the wall and stretching. JW has all the equipment at home and going to the exercise class makes her carrying on doing it at home where she does her exercises every day. The exercises keep JW going: "*I mean you have to exercise, I have to, because I cease up easily. I get stiff otherwise, so it helps me to keep going*." JW is training her arms here, as she wants to limit the loss of muscular strength that comes with ageing. She also can't lift her arms up high, the weights help to train that. The class is not just exercise, it is also going out and meeting people. The other members have become good acquaintances of JW and she thinks they are very nice.

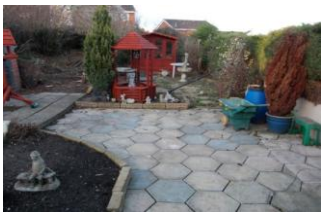
JW has quite some physical health problems like back pain, pain from her new knee that needs redoing, an infection in her leg and eye problems, however she is determined to keep going. "*What I am trying to say to you is that you can carry on even if you are not physically fit and I am not physically fit. You have to carry on. … it's possible to just swallow your pain killers, ignore it and carry on*."

This is the bookshop at Erddig house where JW works four days a week. For four weekends there was a Christmas fair, people were dressed up and Santa, the elves and the reindeer were there. JW prices the books, tells what goes where, takes the money and adds the money up at the end of the day. She does not do the physical work of stocking shelves anymore.

Erddig Christmas means a lot to JW. She and her late husband have been stewards in the house for twenty years, so the place holds many memories. She has some good friends among the colleagues at Erddig and likes the conversations she has with customers in the bookshop, as people talk quite a lot to her she gets to know them and their feelings. "*I love the bookshop, I have always loved the bookshop … because I love it I like going there. I like the books, I like the people I am with, it keeps me occupied all day and I am very fond of Erddig really.*" JW thinks working has a sin in it and is better than sitting at home. "*I would just have to sit and watch at the window, what's the alternative … here you meet people, you talk to people, it keeps you in touch with everyday life."*

DL, male, 75

This is the official opening of the garden of the gardening club that DL is a member of. The gardening club was founded by Age Concern and involves older people like DL or people in wheelchairs in working on raised flower beds. The club meets weekly in the summer, but the garden is always open. DL likes that and often just sits in the garden to talk to people or read a book. The most important to him is that when you go there you are never alone, there is company and people talk to him.



This is DL's back garden. DL has difficulties working in the garden and bending down. Therefore he has a gardener to keep it tidy, but he prefers to talk to the gardener, so the man does not work much. DL used to work in the garden a lot after his retirement before his legs started to bother him. It keeps him busy, which he thinks is important at his age. Next spring DL will try to pick up the work by planting flowers into big pots so that he does not have to bend. DL likes to relax in his garden in the summer and has special memories of the little statues that he bought with his wife who now lives in a home.

This is the daughter of DL's cleaner. The cleaner and her daughter are with DL one day a week, officially it is a morning, but they often go home at 5pm. The cleaner has been working for DL for four years now. DL thinks the cleaner's daughter is a lovely little girl, she is singing and dancing all day and teaches him how to use his computer and mobile phone, while she is only eight years old. Sometimes they also bring a little cousin along. "*When they bring the cousin in there is a lot of noise in the house, I enjoy that. The house is so quiet otherwise, then there is just me and my*

dog, that's why I go out so much. I don't like being indoors." The cleaner is a good worker and she cleans DL's house as if it is her house, but she is also a good friend and she talks to DL, she is like extended family. They bring life to the house and they are great company.

This is the market in Wrexham, it is there every week on a Monday. DL first walks by all the stalls and then sits down at one of the tables at the square to watch people. DL's wife lives in a home, so at home he lives by himself with his little dog. If DL is ill he cannot go out and does not go to the market, because it is too far, then he is just by himself. He likes to go out and enjoys company and watching people. Being with people is what keeps him sane. "*I go there with my dog. …a lot of young people come chat to me because of the dog, that is why I take her you see. She loves rubbing, my dog and she likes to play, so people come say hello to the dog and chat to me. The dog attracts people, so there is always company there.*"

ER, female, 79

This ER on her way to a small pilgrimage church in Snowdonia. She and her husband go there at least once a year. This year it gave ER a sense of achievement, because she had not been up there for a few years because of arthritis in her knee. To do it again this year made her feel very proud of herself and it meant a lot to her. She enjoys the walking and the beautiful views from the mountain. ER also thinks it is getting away from the business of life for a day, this enables her to build up her inner strength.

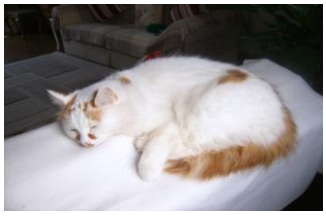
This is ER at work in her front garden. She really enjoys gardening and does not just see it as a task that has to be done. However, what she likes even more is sitting in the garden, relaxing there and reading a book. Gardening makes ER feel closer to nature and the physical work keeps her fit. When she feels a bit down gardening soon lifts her mood. It is the combination of being outside and doing a physical task that makes her feel good.

ER likes to visit gardens that are open to the public, this is Bodnant garden in Snowdonia in autumn. It is a beautiful garden to which she has been returning two or three times a year for the last thirty years. "*It is returning to somewhere I know, that I know I will enjoy and like...*" ER visits gardens quite often;

wherever she and her husband go, if there is a garden, they visit it. Sometimes they go to a garden that belongs to a property, but ER is mainly interested in the garden, she likes the fresh air and wants to be outside. To ER visiting a garden is a relaxing and refreshing day away. *"…I think a day away from your normal surroundings refreshes you. When you sit in the house there is always something to do, it is business. Whereas if you come to a place like that, there are no people there and it is just closer to nature and it is better for me mentally, physically and spiritually I would say."*

This is a lady ER takes holy communion to. ER first attends the service at the catholic church where the communion is consecrated and then she takes it out to people who cannot go to church anymore. These people live in residential homes or in their own home. She visits some on a Sunday and some during the week. ER and the lady have a chat, pray together, then the lady receives holy communion and at the end there is another prayer. Afterwards ER always stays for another little chat and occasionally for a cup of tea. ER likes it because it puts some structure in her week and she thinks it is a great privilege to be able to take people holy communion and bring a little bit of church to their homes. ER is a people person and enjoys getting to know those older people. "*I like it, because I like older people. …they have a lot of wisdom and a lot of stories to tell and they have lived long lives.*"

FH, female, 71



This is FH's cat Peter. FH has always had pets, she likes it that he is always there when she comes home and that he keeps her company, since she lives alone. This is Peter's favourite spot on the couch, in the sun and near the heater. The cat is happy as long as FH feeds him and accepts FH as she is. FH has hypertension and she understood from the media that stroking cats is proven to help reduce the blood pressure, so the cat is also medicinal.

This is the Christmas card that FH was given by her new lover. FH had been a widow for fifteen years and was not looking, but she met someone in September 2012 with whom she went to dancing classes. It made FH realize that she is not really past, she is now being seen as a woman again and not as a mother, grandmother or Mrs Hughes. FH enjoys male company, since most of her friends are ladies. It adds a new aspect to her life and gives her

somebody to go out with. They went to a Christmas ball together where FH would not have gone with her lady friends, so it opens up places for her. It makes FH very happy.

These are two of FH's grandchildren. The boy is seven and the girl is one day old in this picture, he thinks she is "*awesome*." FH already had four grandchildren of which three are seven and one eleven, but she likes being involved in baby things again. "*It means future and I am going to be involved in it, so it is something to look forward to. I enjoy their company and they keep you active, because you are playing games … you have to play football.*" Another reason why FH likes looking after the grandchildren is that they keep her up to date with the modern things like technology and games. Most of the family lives close to FH, which she likes.

These are two friends of FH at the Country Market which takes place in the People's Market in Wrexham every Friday. FH and her friends make crafts and sell them at the market. She enjoys making things, since she can use her creative skills and get things out of her system when she has finished making something she has always wanted to make. Selling her work is not the most important thing, it is the pleasure. FH covers the costs for the material but does not include her time in the price.

Next to selling crafts the market is also a social gathering. The ladies swop ideas, together look out for new things to make, chat and also meet outside the market. FH has been a part of the Country Market for twelve years and being a part of it keeps her fit. "*It gives me pleasure, it keeps me active, because I am thinking of what to do and also the making of it keeps me active, it keeps me going up and down the stairs. It keeps me fit. You have to be concentrated and make sure you don't make a mistake…*"

MW, male, 80

This is MW's back garden. MW thinks it is important that the garden looks tidy, otherwise it could be a sign of incompetence of the residents to thieves or any swindlers. MW and his wife have always grown vegetables and fruits in the garden, however the digging gets harder and the garden became a bit of a worry. A gardener comes every two weeks and MW's wife is fit enough to do some digging. However the garden still provides pleasure and it provides MW and his family with fresh fruit and vegetables that they share.

This is a bedcover that MW's wife is making, she does quilting. She is very good at it and spends a lot of time sewing or crafting. It is an activity that fills her time, it means MW's wife has got something under her hands. MW thinks it is important to have something going and not sit in your chair and watch TV or sleep just because you are old. To MW it means relaxation more than anything. Often MW is reading a book and his wife is sewing, there is peace and quiet then and they both got their mind occupied.

This is a small part of MW's books. He has many books and they give him great pleasure. He reads all of them, since "*books are no good unless you read them.*" MW's books are mostly local history books, ancient history books, general knowledge books, old books (some are two or three-hundred years old) , war books and ancient family bibles. "*I read every day from morning till night, whenever I have a cup of tea or a cup of coffee a book goes with it automatically. I have got to read something…"* MW also takes his books with him anywhere he goes, for example to the hospital. His biggest fear is to lose his eye sight, because it would make him unable to read and then life would be unbearable.

MW has always been interested in books and so was his mother. When he was a seaman with the navy the voyages were long and there was not much to do, so he read many books on board. MW thinks seaman are often well read persons. MW thinks that reading books stimulates his brain and keeps it fit. "*…It keeps my brain active …. I firmly believe that if body exercise keeps your body fit, well then brain exercise must you know, do the same thing to your brain.*"

These are old documents that MW has at home that help him find out his family history. He has a lot of the wills since 1787 and the old family bible. His mother was interested in family history, so she kept all the wills. MW is a member of the family history society and collaborated with some family members around the world who are also working on the family history. If MW would be fit enough he would go out and find all the information he wanted in archives and lists, but now he has to pay somebody to do that. MW is also not computer literate, he uses it to type names and transcribe old documents, but he does not search for information on it. Therefore MW just uses a lot of old documents to find out as much as he can. "*You are like a detective you know, going after it. You got the challenge there.*" The detective part of finding out family history excites MW, since he

is a former detective. It is an interest that keeps his mind going, it is a puzzle and it is special since it is about his family. "*It depends on yourself really what kind of person you are, you can be an absolute bored. As long as something keeps you occupied and moving around and keeping you alert… Your progress in life is down to yourself, there is so much you can do*."

4.4 Joint reflection of older people on perceived health assets

During this project two focus group discussions took place with five participants each. Three other participants were not available and one other participant declined to take part in it. Focus groups took place late December and early January. The participants of both focus group discussions are listed in table 3.

Participants focus group discussion I	**Participants focus group discussion II**
GD (female, 80)	AJ (female, 68)
PD (female, 80)	JD (female, 80)
VC (female, 71)	FH (female, 71)
GT (male, 81)	ER (female, 79)
RM (male, 83)	PW (female, 66)

Table 3: Participants of the first and second focus group discussion.

'Portrait of Kate' by PD (female, 80)

Kate is a dear friend of PD and GD who they see only once or twice a year, but they never lose touch. The group acknowledges the value of friendship. RM himself has a dear friend like Kate.

"It is friendship isn't it, that is so important." (VC, female, 71)

"Oh just, yeah, a very close friend, if he went away never I would forget him." (RM, male, 83)

PD thinks keeping in touch is not always easy and that you really have to work for it to keep a friendship going for so many years. RM and VC agree that it takes effort to maintain friendships. VC thinks it is this effort that makes some people stop keeping up friendships.

*"Some people don't keep up friendships, because they feel they are a burden, but a real friendship is never a burden."(*VC, female, 71)

RM and VC think friendships can be promoted by putting effort in it, you should communicate. GT thinks this can be hard, since a lot of people live far away. VC keeps in touch with some of her friends by sending an annual Christmas news letter to them and her friends do the same. RM used to do a round-robin letter with his family members at the time when they were all living in different countries, so every few weeks he had news about what they were doing. However they now have a family facebook page, which he thinks is a great idea since it is must faster than letters.

"So when the computer took over, oh, bang bang, this morning it goes up and two minutes later the wife has got it you know." (RM, male, 83)

Thus having friends and keep friendships going are important to health and well being as people age. Friendships are valuable and you have to put effort in it to maintain them by communicating.

'Shopping in the supermarket' by GT (male, 81)

This is GT trying to create a balanced diet in the supermarket. He does have biscuits in his trolley, his daughter said that the only way to stop eating them is to stop buying them. VC agrees with that, she has the same with a box of Maltesers.

"If I buy a box of Maltesers I can't stop until it's empty, it's dreadful, I don't buy them though, but they are my favourite." (VC, female, 71)

However VC and GT agree that you have got to give yourself a treat and relax sometimes. GT nowadays does not fancy much of the chocolates and biscuits in the supermarket, he lost interest in them. Whereas VC fancies all of it, but she has to be careful because she is diabetic. RM is also diabetic, his wife looks after his diet when she goes to the supermarket. PD and GD are also very careful about their diet.

On how to promote a healthy diet as a health asset views of the participants varied. GT thinks a healthy diet purely depends on your own motivation for your health, it all depends on you.

"…it is motivation, if you don't do it for your own benefit to health then there isn't anything anybody else can do about that." (GT, male, 81)

VC, PD and GD think that the price of healthy food in the supermarket can encourage a healthy diet, for example special offers on fruit. They think there is a lot of encouragements in supermarkets for people to get things.

"Like clementines, two packages for the price of one and things like that." (GD, female, 80)

Thus a healthy diet is important to health and well being as you age, though a treat every now and then should be acceptable. Having a healthy diet is influenced by your own motivation to benefit your health and the price of healthy food in the supermarket.

'Garden centre during festive season' by JD (female, 80)

This is a display of singing Santas in a garden centre. JD thinks it is very pretty, ER and PW like it too. JD likes visiting garden centres all the time, it fills her with joy. JD and PW think that garden centres are very popular, it is busy there and there is always a crowd of children around. PW occasionally visits a garden centre and thinks some do good meals as well.

FH, ER and JD think that it gives pleasure to visit a garden centre and it can be uplifting, it makes you feel better. AJ feels that a garden centre is a nice place to go when you have not been out for a while and you feel you need to get out, JD recognises this.

> *"When you are feeling a bit, you know, when you haven't been out for a while and you feel like you need to get out. … And going to the garden centre, you haven't got to go into town. I suppose that's good."* (AJ, female, 68)

JD and AJ think you do not even need to have a garden in order to go to a garden centre, since they sell so many other products as well, like clothes and shoes.

Thus going to the garden centre helps to remain healthy and well as you age. The threshold to go to a garden centre is low; it is in a convenient place to visit as it is out of the town centre, it sells a wide range of products and it has a restaurant. Garden centres are enjoyable and uplifting and an easy option when you feel you need to get out.

'Grandchildren' by FH (female, 71)

This is FH's newborn granddaughter. FH looks forward to babysitting her and teaching her things, it makes her focus on the future instead of on the past. FH, JD and AJ agree that the grandchildren keep you fit, young and going when you look after them.

> *"It keeps me fit, looking after her, chasing her."* (FH, female, 71)

FH, PW and JD think that the grandchildren keep you up to date with the latest technology such as computers, mobile phones and games. The grandchildren grow up with it and can teach their grandparents about it.

> *"Yes, if you want to know, ask the young ones."* (JD, female, 80)

AJ's grandson demonstrated her how to get up, since she mentioned to him that she found it hard to get up, so he tries to teach his grandmother and keeps her going. ER does not have grandchildren, but can relate to the pleasure of having a close knit family and thinks this is a strong picture of family life. JD agrees that it is nice to have a close knit family.

Thus grandchildren enhance healthy ageing by giving you something to look forward to, keeping you going and teaching you things about the latest technology.

'Visiting gardens' by ER (female, 79)

This is ER visiting Bodnant garden in autumn. AJ and JD think this looks like a lovely place. All participants in the group visit gardens, especially stately home gardens. However they have different reasons; ER likes the outdoors and exercise, but mainly thinks her soul is more at peace in gardens and experiences a sort of spiritual contact, to PW it is an interest, FH likes the outdoors, AJ sees it as a day out and JD works at a stately home with a garden.

Some participants are member of organizations like National Trust and want to take full advantage of being a member, so in that way such organizations promote visiting gardens.

> *"If you become a member of National Trust obviously you want to make full use of your membership. … So you visit all those places…"* (FH, female, 71)

ER thinks word of mouth promotes visiting gardens, when you tell somebody you have been to a place and had a lovely day. JD thinks visiting gardens is in the British culture and FH thinks their generation likes to go out and about.

Visiting gardens helps to age healthy and well for different reasons; it is a peaceful place, it gives exercise, it is outdoors, it is a day out and for one participant it is work. Visiting gardens is popular since it is part of the British culture, going out is popular among the older generation and people want to take full advantage of their National Trust membership.

'Using the computer' by PW (female, 66)

PW uses her computer to stay in touch with family by chat, to send e-cards, play games and she goes shopping online when she is not able to get out.

> *"…when I had my hysterectomy I couldn't get out to do shopping, so it was a question of me ordering online. … It was Tesco at the time and they delivered and brought it right into the kitchen and they unpacked it for me and everything. They were really very good."* (PW, female, 66)

JD thinks that is lovely and feels ashamed that she is still not able to use a computer after having one for eight years. JD feels like she is missing out a lot, but she does not think she will ever start using the computer.

> *"You lucky you, do you know I can't even use one. I have had one for eight years and I haven't a clue. I can put it on, but I do not bother with it. Nowadays everything is contacted by 'www' and I am quite ashamed of myself, and my grandson can come and do wonders and I cannot. … but I am not really interested. I am missing out a lot I suppose."* (JD, female, 80)

ER also does not use a computer, she does not like looking at a screen and prefers to be outdoors. AJ occasionally uses the computer to send emails with minutes of meetings, FH uses it for emails, the web and printing things. ER thinks you cannot promote computers, you have got to have an interest.

Thus using a computer for all sorts of purposes helps to remain healthy and well as people age. Purposes are: keeping in touch, playing games, searching the web and online shopping when a person is unable to get out. However some people do not have an interest in the computer and do not use it, even when they feel they are missing out.

Key themes of older people's health assets

Participants' health assets showed several key themes, like social health assets, physical environment, health assets for mobility and independence, hobbies, work, assets for physical health and well being and faith.

Social health assets

Social health assets are family, friends, other company, pets and social activities .

Contact with family is important to health and well being, they bring pleasure, the grandchildren keep their grandparents active and up to date on the latest technology and they give something to

look forward to. Contact within a family is enhanced by having a car or a computer and some families have traditions that bind them, like horse riding.

The social environment can provide company and support which help older people to remain healthy and well as they age. Friends give love and support, so does a partner and a partner is somebody to go out with. Supervising and teaching (grand-)children can make older people learn new things and keeps them alert. Company can also be a cleaner, people at the weekly market, customers in the store where a participant works or a gardener; these are people to have a chat with. Furthermore friendships exists between participants and colleagues at work.

Animals can be uplifting and thereby enhance health and well being. Pets like birds, a cat or a dog are nice company and cheer people up. Animals in nature can also be uplifting and enjoyable to watch.

Many participants mentioned regular social activities which are important to their health and well being. Activities like a lunch club, music sessions (piccolo's group), choir rehearsals, activity days for older people (ICAN), coach trips, girls brigade sessions, meetings of the gardening club, taking people holy communion, a retired employees club , swimming classes and exercise classes provide social contact and make them meet (new) people. The company and socializing is enjoyable, people participating in the same activities can support each other and often participants learn new things when doing these activities.

Physical environment

The physical environment provides health assets which enable people to do certain activities. Such assets are an own garden where people can work but also relax, the home which is a safe and warm place and the terrace at the square in town centre when there is a market where people can sit and chat. Other assets are venues where people can buy things, but also socialize and enjoy, like a coffee shop, a garden centre, supermarkets, a market and local stores. Furthermore places that are an asset for health are public gardens and nature, especially Snowdonia; a large nature park close to Wrexham. People come here to relax, enjoy nature or to exercise by walking. Other health assets in the physical environment relate to exercising and socializing, like swimming pools and exercise studio's. Churches are another asset, people go there to practice their faith and socialize.

Health assets for mobility and independence

A car is important to health and well being, since it keeps participants mobile and enables them to go to friends, family, work and stores. Because of the car participants can stay active and they are independent when it comes to transport. A participant mentioned that her cleaner also helps in remaining independent; if she would not have help in cleaning the house she would have to move to a residential home. Others also mention a cleaner or a gardener that helps them in maintenance and enables them to stay in their homes.

Hobbies

Hobbies exist of interests that people have and activities they do in their leisure time, an interest often mentioned is gardening.

The garden appeared to support health and well being in many ways: it is an interest, it gives something to look forward to, it provides pleasure, joy, fresh air and a place to relax, but also exercise when working in it. The garden can be uplifting and it provides some participants and their family with fresh fruits and vegetables. Next to enjoying an own garden pleasure can also be derived from visiting public gardens, garden centres and being a member of a gardening club. Public gardens are a nice day away from daily business, the gardening club provides tasks and company and the garden centre is an enjoyable place.

Other health assets are objects and interests people have that relate to having certain hobbies which play a role in remaining healthy and well as they age. Objects are the computer which is used for shopping, entertainment and social contact, a photograph album which people look at, music which is enjoyed, a weaving rack used to make hats and other garments, a crossword puzzle, books and other reading material to keep the brain active and old documents and folders which help in finding out family history. Interests are painting, making cakes, making crafts and sewing. These hobbies can be calming, relaxing, satisfying, exiting, challenging, enjoyable, social when you meet and discuss with others who have the same interest, make you feel helpful when you make something for others, keep the mind occupied and keep the brain active and alert. All these effects are beneficial to health and well being.

Work

Most activities mentioned by participants are performed in leisure time, however two participants still work. One works in a bookshop and the other sells craft at a country market. Working is

important to health and well being as it is a social activity, it keeps you busy, it is enjoyable, it has a sin in it and keeps you in touch with everyday life.

Assets for physical health and well being

An assets that supports physical health is the availability of fruit, vegetables, hot lunches and ready meals to create a healthy and balanced diet. Related health assets are a person's motivation to eat healthily and the price of healthy food. Other health assets are medicinal tools, like a chair that takes the pressure of the heart, a cat to lower the blood pressure when stroking it and pain killers which enable people to keep going despite pain.

An important aspect of staying physically fit as people age are assets that help in exercising. These are: free weekly swimming lessons, weekly exercise classes, exercise equipment at home used for daily exercising and walking space outside the house.

Several participants go to exercise classes, which keep them going and improved their fitness, which gives a sense of pride. Several participants went to an exercise class on doctor's referral. Others enjoy walking to get their daily activities done or as a day away, which gives them exercise. Swimming is another form of exercise that is done by participants in a class or individually. Swimming classes have a social element as well, which enhances well being. Individual swimming requires discipline and is encouraged by one participant's doctor to enhance physical fitness.

Faith

Finally, faith helps some participants in healthy ageing. It involves them in activities like praying in a group, conducting the church choir, going to church and taking people holy communion at home. These activities feel like a privilege and a support. Having faith and praying itself also have a supportive and calming effect. The services organized in the churches in the area of Wrexham are a health asset. However other places like nature and gardens can also be experienced as a place of spiritual contact and peace.

Summary – Key themes of older people's perceived health assets

Social health assets are family, friends, other company, pets and social activities. Ways to keep in touch with friends and family are a health asset, like letters, facebook and the computer.

Health assets in the physical environment can be a garden, the home and a terrace at a square which enable people to be physically active, relax or socialize. Venues where people can buy things can support people in buying healthy products, but also in socializing, relaxing and enjoying. Nature and public gardens provide enjoyment and exercise. Places where people can exercise, like swimming pools and exercise studio's, support them in physical activity and socializing. Churches enable people to practice their faith and to socialize.

A car keeps people mobile and active. Cleaners and gardeners help older people in maintenance and the computer can be used for online shopping when a person is unable to go to the store. Hereby older people are enabled to keep on living independently in their own homes.

Many objects and interests enable people to do activities and are thereby a health asset. Activities are all kinds of hobbies people have, like gardening, reading or other interests.

Two participants still work. Working is important to their health and well being as it enables them to socialize, keep busy, enjoy, keep in touch with everyday life and has sin in it.

Assets for physical health and well being are medicinal tools and the availability of food which creates a healthy and balanced diet. Related health assets are a person's motivation to create a healthy diet and the price of healthy food. Other assets relate to exercise, like free swimming lessons, exercise classes, swimming pools, exercise equipment at home, walking space and doctors who advise people to exercise and refer them to classes.

Faith is a health asset as it involves people in activities and faith itself is experienced as calming and supportive. Services in churches are a health asset, which support people in practicing their faith.

Based on the above mentioned key themes of older people's perceived health assets and on the key themes of the findings on health and well being and the process of healthy ageing table 4 was created to provide an overview of all the findings. Interrelated themes of the three categories are shown next to each other (in the same blue or white row) in the table.

Older people's perceived health assets	Older people's perceptions of the process of healthy ageing	Older people's perceptions of health and well being
• Social health assets - Family, friends, other company and pets - Need for social contact - Social activities - Computer, facebook, letters • Faith - Services - Religious activities	• Stay in social contact - Maintain network of family and friends - Involvement in social activities - Helping others • Practice faith - Involvement in religious activities	• Social contact and support - Contact with and support of a network of family and friends - Faith based social support
• Assets for physical health and well being - Availability of healthy food, motivation to eat healthily, price of healthy food - Free swimming lessons, exercise classes, exercise equipment at home, walking space - Doctor's referral to exercise classes - Medicinal tools - Health care and beauty facilities	• Adopting a healthy lifestyle - Eating healthy food - Exercising - Sleeping enough • Using health care and beauty services	• Physical aspects - Healthy diet - Physical fitness - Enough sleep - No pain - Well-groomed Appearance
• Activities - Hobbies, work • Physical environment - Shops, markets, coffee shop and garden centre - Garden, home, terrace - Nature, public gardens - Swimming pool, exercise studio - Churches • Assets for mobility and independence - Car, computer - Cleaner, gardener • Positive and realistic attitude	• Stay active - Keep on doing activities - Keep the mind active • Approach ageing in a positive and realistic way - Being prepared - Coping and adapting	• Engagement in life • Mental fitness • Independence • Mobility

Table 4: Overview of the key themes and sub themes of the findings.

5.) Discussion

This discussion will reflect on the findings in the context of the theoretical framework, will review the strengths and limitations of the study, discuss implications for practice and finally give recommendations arising from the study.

5.1 Relationship of the findings to the model of healthy ageing

This section will discuss the findings of the research (Table 4) in the context of the theoretical framework, namely the model of healthy ageing as described in chapter two (Figure 4). This discussion is divided into three topics which answer the two sub-research questions: 'What do older people in the community of Wrexham perceive as health, well being and healthy ageing?' and 'What do older people in the community of Wrexham perceive as assets for their health?'

5.1.1 What do older people in the community of Wrexham perceive as health and well being?

Participants perceived health and well being as having social contact and support, being engaged in life, being mentally fit, independent and mobile. Furthermore health and well being are related to physical aspects.

Holistic view on health and well being

Participants' perceptions of health and well being match Sidell's (1995) findings, which also focus on interaction with the social and physical environment next to disease and disability.

Participants take a holistic approach to health and well being and take physical and social aspects into account. They mentioned many aspects of health and well being and not just the absence of disease and disability. Next to having no pain other components of health and well being were mentioned, like having a healthy diet, physical fitness, enough sleep, having a well-groomed appearance, social contact and support, engagement in life, independence, mobility and mental fitness.

Adaptive dimension of health and well being

For participants who suffered from disease or disability, like arthritis, hypertension, diabetes, infections or eye problems, their holistic view meant they perceived themselves as ageing healthy

and well despite their physical complaints, which matches Sidell's (1995) findings. Health and well being relates to more than disease and disability, for example remaining engagement and independence by coping with physical health problems was also important. This reflects the adaptive dimension of health and well being. These participants are "survivors" of disease and disability who maintain life satisfaction and functioning despite their physical complaints. Thus, unlike the conclusion from Depp's and Jeste's (2006) review, absence of disability and disease and/or physical functioning was not the most frequent used component to define health and well being in this study.

Functional dimension of health and well being

Participants' perceptions of health did not fully confirm the statement of Reed et al. (2004) on how older people mostly define health. Reed et al. (2004) state that older people themselves mostly define health in functional terms, focussing on the ability to do things and perceive doing activities as a determinant of health rather than an outcome of it. The ability to do things was neither the only nor the most important aspect of health and well being mentioned by participants. Participants' views on health and well being were wider than the functional dimension. However, several participants did interpret health and well being in terms of engagement in life. Keeping yourself motivated to do things and keeping yourself busy with hobbies, interests and activities contributes to health and well being according to the participants.

Independence, autonomy and mental fitness

Participants perceived independence and mental fitness as important to health and well being. This matches with what the WHO sees as determinants of quality of life of older people. The WHO (2002) states that autonomy and independence are the main factors which determine quality of life for older people. Participants mentioned that being independent is important to health and well being, they do not want to be looked after and therefore need to be mentally fit. Staying in control over one's life (autonomy) was not specifically mentioned by participants, but can be seen as another result of staying mentally fit next to independence.

The importance of mental fitness to participants' health and well being resonates with the second most often used component to define health and well being, namely cognitive functioning (Depp and Jeste, 2006).

Perceived health and well being related to correlates and predictors of health and well being

Aspects of health and well being mentioned by participants partly resonate with the correlates and predictors of health and well being found by Depp and Jeste (2006) which are shown in figure 3.

Engagement in life is important to participants' health and well being, this matches activities of daily life as a predictor of health and well being found in Depp´s and Jeste´s (2006) study.

Absence of arthritis was found to be a predictor of health and well being in the study of Depp and Jeste (2006). Participants' views on absence of arthritis as an aspect of health and well being varied. Two participants with arthritis in their knee mentioned they go swimming or walking despite their condition. They take a "survivors" approach and do not see absence of arthritis as a precondition to health and well being; it is the way you cope with the arthritis and whether you remain engaged in life which determines health and well being. However arthritis can be painful and some participants see having no pain as an important aspect of health and well being, thus to them absence of arthritis is a precondition to health and well being.

Many physical activities participants described, like swimming, going to an exercise class, gardening and walking support participants' health and well being. This reflects higher physical activity level as a predictor of health and well being.

Social contact with a cat, an animal that according to a participant with a high blood pressure lowers the blood pressure when stroking it, resonates with lower systolic blood pressure as a predictor of health and well being.

Participants want to have an active mind that is able to process and absorb what is going on in order to enjoy life and live independently. Mental fitness mentioned by participants resonates with the importance of global cognitive functioning, a predictor of health and well being.

Participants experienced having a network of family and friends and having faith based social support as important to health and well being. Participants also view more social contacts as better for their health and well being, for example some participants mentioned to be a 'people person' and like to be amongst other people as much as possible. Participants also mentioned they feel a need to socialize and thus go out of the house as much as possible and the more joy they experience when the more people are in their houses. The importance of (more) social contact and support to participants' health and well being resonates with more social contact as a predictor of health and well being.

The predictors and correlates to health and well being (Depp and Jeste, 2006) do not completely overlap with participants' perceptions, some differences can be found. Several predictors to health

and well being, like gender, education, income, marital status, better self-rated health, absence of depression, absence of hearing problems, age and non smoking were not reflected in participants' perceptions of health and well being. Furthermore participants mentioned several aspects which were important to their health and well being that had not been found in Depp's and Jeste's (2006) study, like healthy diet, enough sleep, well-groomed appearance, independence and mobility.

5.1.2 What do older people in the community of Wrexham perceive as healthy ageing?

Participants mentioned several aspects when explaining their interpretation of healthy ageing. To stay in social contact, practice faith, adopt a healthy lifestyle, use health care and beauty services, stay active and approach ageing in a positive and realistic way are important to healthy ageing.

Stay active in many areas

Older people's effort to stay active in many areas matches with the definition of 'healthy ageing' by Hansen-Kyle (2006) and the WHO (2002). Participants try to stay active in many ways; they go out and about, keep the brain active, have hobbies, maintain social contact, still work and/or are involved in the church. This matches with the definitions of healthy ageing by the WHO (2002) and Hansen-Kyle (2006) and the notion of Bowling and Iliffe (2006) which all show that older people try to stay active or participate in many areas, like the physical, cognitive, social, economic, cultural and spiritual area. Participants mentioned activities in all these areas, their perception of healthy ageing is multi-dimensional.

Coping and adapting

"*Resiliently adapting and compensating in order to optimally function and participate*" (Hansen-Kyle, 2006, p. 52) and "*the process of optimizing opportunities for health, participation and security*" (WHO, 2002, p. 12) are described in the literature as aspects of healthy ageing. This process of adapting, compensating and optimizing opportunities (Figure 4), is reflected in the views of participants. They mention they cope with ageing by having a positive and realistic attitude, stepping back if needed, being prepared for old age, trying to keep doing activities and trying to keep the mind active. Participants gave several examples of how they adapt to issues on their way as they age in order to keep on functioning, participating and staying active. For example a participant with difficulties to move her limbs no longer wears clothes with zips or buttons to make getting dressed

easier. Thus, the process of healthy ageing as shown in figure 4 was confirmed by participants as it matches their views on healthy ageing.

Views on healthy ageing related to previous research

Participants' views on healthy ageing match previous research on this topic conducted by Naaldenberg et al. (2010). The theme "stay active" of participants' views on healthy ageing resonates with the importance of engagement and participation within society as described in the previous study.

Participants' positive and realistic approach to ageing, which includes coping and adapting, match the positive approach and ability to cope with physical problems mentioned by participants in the previous study.

That older people view healthy ageing in the context of everyday life (Naaldenberg et al., 2010) resonates with participants' views on healthy ageing as for example keep on doing activities, practicing faith, using beauty services, staying in social contact and adopting a healthy life style. Age itself is just a number, there are many more things in everyday life which influence the experience of age.

Interaction between aspects of healthy ageing as described by Naaldenberg et al. (2010) can also be seen in the findings of this study. For example practicing faith involves people in religious activities and therefore relates to staying active, just like coping with difficulties relates to keep on doing activities. Social contact can stimulate the brain, therefore maintaining a network of family and friends relates to keeping the mind active.

5.1.3 What do older people in the community of Wrexham perceive as assets for their health?

The findings on participants' perceived health assets showed several key themes, like social health assets, faith, assets for physical health and well being, activities, physical environment, assets related to mobility and independence and a positive and realistic attitude.

Buffer against life's stresses

Health assets can operate "*as protective or promoting factors to buffer against life's stresses*" (Morgan and Ziglio, 2010, p. 5). During the interviews on their health assets participants mentioned

several stresses of life, like loneliness, illness, disability, being too busy, having less stimulation for the brain after retirement and boredom. To participants these stresses of life were often reduced or even prevented by the health assets they photographed. For example in participants experiences going out to meet people reduced loneliness and doing crosswords prevents Alzheimer's disease. Thus, the mechanism of buffering against life's stresses and promoting health and well being by using health assets at hand was confirmed by participants.

Health assets on different levels

Participants have health assets on different levels, this matches Morgan's and Ziglio's (2010) definition of health assets that *"can operate at the level of the individual, group, community, and/or population"* (p. 5). However not all levels were represented equally in participants' health assets. Participants mentioned many resources on the individual and group level, whereas only a few assets on the community level were mentioned and none on the population level.

On the individual level health assets mentioned by participants were mainly related to activities they do. These were folders or old documents containing family history, an own garden, exercise equipment at home, photograph albums, cross words, books and equipment for doing crafts, making cakes or painting. Other health assets on the individual level are pets, a partner, a good cleaner and gardener, a nice home, a special chair, a car, a computer for online shopping, painkillers and faith. Furthermore the motivation to eat healthily, a positive and realistic attitude and having a need for social contact are health assets on the individual level.

On the group level many health assets relate to social contact, like family, friends, other company and a computer, facebook and letters to keep in touch with them. Assets on the group level also often relate to social activities participants undertake, like a girls brigade session supervised by a participant, religious activities such as praying together, a choir which participants sing in or conduct, swimming classes or other exercise classes participants go to, a retired employees club, a garden club, a lunch club, a music club of a grandchild and a market on which craft is sold together.

Assets on community level mentioned by participants were mostly facilities in the physical environment accessible to the whole community of older people in Wrexham, like walking space, nature, public gardens, a terrace, shops, markets, a coffee shop, the garden centre, health care and beauty facilities, the swimming pool, exercise studios and services in churches.

Health assets related to previous research

As in the study of Naaldenberg et al. (2010) participants mentioned a wide range of health assets. The main category "social environment" identified in previous research (Naaldenberg et al., 2010) resonates with the key theme "social health assets" in the findings of this study; participants perceived their family, friends, ways to stay in touch with the social environment and social activities as a health asset.

The main category "physical environment" identified in previous research, is also a key theme in this study. For example participants took pictures of nature, churches, shops and swimming pools.

Communication as a way by which resources become available was no main theme in this study, but participants did mention to use forms of communication like facebook and email to stay in touch with family and to use internet to order shoppings when mobility is limited. Mobility is a key theme in the findings as well as a main category mentioned by Naaldenberg et al. (2010), for example participants photographed their cars which keep them mobile.

The findings of this study showed several key themes which were not mentioned in the study of Naaldenberg et al. (2010), like faith, assets for physical health and well being, activities, assets for independence and a positive and realistic attitude.

Findings did not out tune whether nearby resources are more important as was assumed by Naaldenberg et al. (2010). Participants' photomission was to photograph assets in their life and community, this might explain that nearly all pictures were taken in the area of Wrexham and surroundings and might not be explained by easy access or familiarity.

5.2 Model of healthy ageing

The findings of the study (Table 4) confirm the model of healthy ageing (Figure 4) as shown in the theoretical framework. The findings reflect the process of adapting, compensating and optimizing opportunities. Furthermore the role of health assets in the process and the outcomes of the process as described in the model are reflected in the findings.

With each set of interrelated themes (rows) in table 4 the model of healthy ageing could be filled in. To illustrate this the model was filled in for the process of healthy ageing related to eating healthy food (Figure 7). This figure shows that certain health assets (availability of healthy food, motivation to eat healthily, price of healthy food) support older people in the process of healthy ageing related to eating healthy food, this results in a healthy diet, which is seen as an aspect of health and well being. Likewise all interrelated assets, aspects of the process of healthy ageing and aspects of health

and well being (outcomes), which are shown in the rows of table 4 could be used to fill in this model. For example the interrelated themes faith (asset), practice faith (process of healthy ageing) and faith based social support (aspect of health and well being) could also be used to fill in the model. Thus the model of healthy ageing is confirmed by the findings of this study.

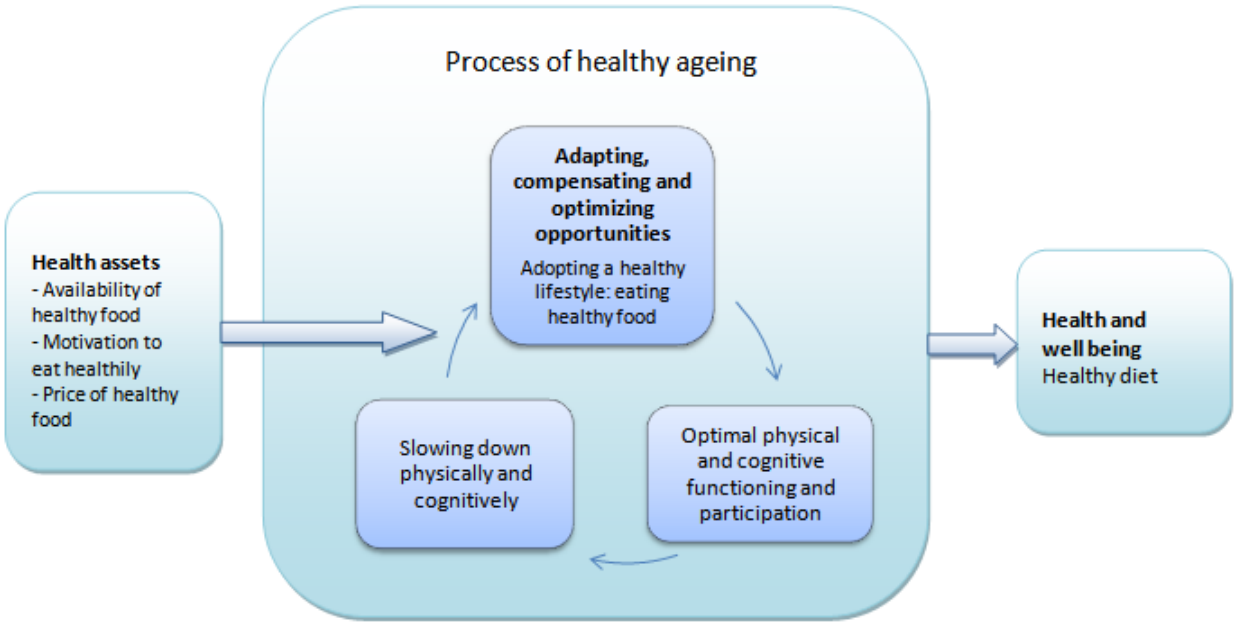


Figure 7: Model of healthy ageing filled in for eating healthy food.

5.3 Strengths and limitations of the research

This section will review the strengths of the study and its limitations or problems and how these were addressed or overcome.

5.3.1 Strengths

Strengths of the study are its theoretical basis, its contemporary and innovative approach, the sampling strategy, addressing ethics, gaining trust, the focus group size and composition, flexibility, the study's trustworthiness and achieving the aim and objectives.

Theoretical basis

This study is based on a comprehensive review of literature on the ageing society, healthy ageing, the photovoice method, previous photovoice studies and the assets approach. Literature could be retrieved from two universities, by using the Wageningen University's digital library and the Glyndŵr

University's library books. Moreover documents could be used that were created during a previous photovoice research project conducted by Ronzi and Kennedy (2012) at Glyndŵr university in spring/summer 2012. This makes the research well informed, recommendations from previous studies were taken into account and a theoretical framework could be created by which the findings got meaning and a contribution could be made to the field of knowledge on healthy ageing.

Approach

The approach of the research fits within contemporary thinking in the field of health promotion. This research fits within the new view on the ageing society, namely healthy ageing instead of older people's problems and needs (WHO, 2002). By taking an asset approach to research this new view on the ageing society the research responds to the call to restore the balance between the deficit and the asset model for health and helps to promote health in a more positive and inclusive way (I&DeA, 2010; Morgan and Ziglio, 2007). The asset approach requires participatory research, such as photovoice, to ensure active input of older people (Lezwijn et al., 2011). Photovoice and PAR in general have not been used much with older people as co-researchers (Novek et al., 2012; Blair and Minkler, 2009). Photovoice has not been used before to map older people's health assets, but is seen as a promising approach for creating community and environmental change (Kramer et al., 2010).

Thus, the use of photovoice to map older people's heath assets is innovative, promising and answers to several calls and a new view in the field of health promotion.

Sampling strategy

Recruiting participants was often executed with help from Age Concern at sites where they organise activities, eight participants out of the total fourteen were recruited during different activities organised by this organization. Participants were recruited during a men's cooking and eating club, an ICAN session and an exercise class organised by Age Concern. This might have biased the sample, since many participants had a link to this organization. Other participants were recruited during an aqua class organised by Sport Development Wrexham (four participants) and prior to the monthly U3A meeting (two participants). However since participants were recruited during different Age Concern activities and several participants were recruited outside Age Concern this provided a variety of participants and thereby a wide range of health assets, which minimised the bias of the findings of the study.

Because of the participatory nature of this study and the underlying idea of photovoice to give people who are not often heard a voice, older people were involved as much as possible. Any older

person who showed an interest in participating and met the criteria to participate has been involved in the study, even if there were conditions which made participating challenging. For example one participant had problems with his eyesight. The font size of all materials was increased and the place of the meetings was adapted. Another participant spoke unclear. During the first meeting an employee of Age Concern who already knew the participant joined in and helped in fully understanding the participant by repeating and summarising what the participant said.
By slightly adapting the process these two people could take part and no valuable views on assets for healthy ageing were lost. This resulted in a wide range of participants and health assets.

Ethics

During the initial interview and training the participants were told about image ethics on conflicting freedom of expression of the participant and privacy of subjects. All participants who photographed people asked their consent by using the subject consent form, so the image ethics have not been violated.

Gaining trust

According to Novek et al. (2012) one of the issues in using photovoice with older people is to gain the community's trust (Appendix 1). The fact that very personal experiences concerning health, well being, healthy ageing and health assets were shared, indicates a level of trust. At the end of meetings several participants mentioned that they usually do not talk about things they mentioned that day and that they thought the researcher was a good listener. For example conversations took place on cancer, faith, divorce, loneliness, depression, death and fear of getting ill. By gaining participants' trust they responded with openness and honesty, which resulted in rich data.

Using the kitchen of Age Concern's offices for the first and second meeting with participants made the meetings less formal. This homely environment made it easier for people to talk and share personal stories than if the meetings would have taken place at university, which can be intimidating and make people feel less comfortable. The group discussions took place at university and here a less formal and comfortable atmosphere was created by informal chatting at the beginning and having a coffee break.

Focus group size and composition

In both focus group discussions five older people participated. This was enough to keep the conversation going and the group was not so big that anybody was inhibited or hesitant to speak.

This group size was also enough considering the time it took to discuss each participant's four selected photographs. A bigger group might have made the discussion too long for participants. Focus group discussions are often held with homogenous groups to create an open and supportive, non-judgemental environment (Marshall and Rossman, 1999), this was also the case for this study. All participants of the focus groups were older than 65, lived in Wrexham or surroundings, perceived themselves as healthy and/ or well, and most of them participated in an activity organized by Age Concern. These shared characteristics created a group of participants who did not differ too much from each other and felt comfortable enough to share their opinion.

Flexibility

For the first focus group discussion SHOWeD was used, but sometimes this was felt by the older people to be confusing and meaningless. For the second focus group the questions were adapted to elicit more response and SHOP was used. The last two questions of SHOWeD, namely 'Why does this resource for health exists?' and 'What can we do about it?' seemed to be difficult to answer in the first focus group discussion. Therefore these two questions were replaced by one other question during the second focus group discussion. The new question of 'How can this resource for health be promoted for you and others?' appeared to be easier to answer for participants of the second focus group discussion. Furthermore the adaptation of the set of questions resulted in a shorter second focus group discussion, because SHOP has less questions and fitted the discussion of photographs better than SHOWeD. This change reflects the flexibility of the study and the ability to adapt when difficulties were experienced.

Trustworthiness

The quality of qualitative research can be assessed by the trustworthiness criteria, which include the credibility, transferability, dependability and confirmability of a study (Schwandt, 2001). The trustworthiness of this research is good, since all measures are high except confirmability.

Credibility

The credibility of this study is high, since participants' health assets were shown first-hand by means of photographs without any interference of the researcher. The stories which accompanied the photographs at the exhibition were also likely to represent participants' views accurately. All seven participants present at the exhibition were asked whether they were content with the stories or

whether anything should be changed, but they were all content. To further improve the credibility of future photovoice research, stories on participants' photographs could be cross-checked prior to the exhibition.

Transferability

The findings and conclusions of this study apply to the community of Wrexham. Transferability can be achieved by providing the reader with sufficient information on the case studied so that readers can assess the similarity of this case compared to their case and can assess whether or not findings can be transferred (Schwandt, 2001). The context of the data should be described in detail (Holloway, 1997). Other researchers are expected to be able to assess the transferability of these findings to their case, since the case of this research has been described in detail, for example the background, aim, method and sampling strategy of the study have been described elaborately.

Dependability

Dependability is achieved when a research path is logical, traceable and documented and when the decision making process is described in detail (Schwandt, 2001; Holloway, 1997). The dependability of this research is good. The choices on for example the topic of the study, the method used in the study, the model of healthy ageing, the sampling procedure and the asset approach were well underpinned and explained in the report. The research process was also explained in detail.

Confirmability

Confirmability is similar to objectivity and means that the findings of a study should be a "*result of the research and not an outcome of the biases and subjectivity of the researcher*" (Holloway, 1997, p. 161). The confirmability of this study is low. The data collected in this study was influenced by personal judgement many times. Participants as co-researchers decided what to photograph or not, which pictures were selected for discussion and which pictures were exhibited. Furthermore the researcher decided which parts of the group discussion were included in the report. The photovoice process resulted in a subjectively selected display of health assets. However, the study never intended to be objective since it aimed to investigate the perceived health assets of older people by a method that was known to have personal judgement intervening representation during the process.

Achieving aim and objectives

Aim

The aim of this study was: "Increase policy makers' and the community's awareness of what older people perceive as important to healthy ageing and engage policy makers, the community and older people themselves in an action process to enhance healthy ageing in the community of Wrexham". This aim has been partly achieved.

Increasing awareness of what older people perceive as important to healthy ageing was done by organising a public exhibition at Glyndŵr University (Appendix 3). However because of circumstances, like the weather conditions that day and the short period of time in which the exhibition had to be organised, there were not many people from the community present and there were no policy makers. However the people who visited exhibition enjoyed it, responded with enthusiasm and got an impression of older people's health assets. For example a visitor of the exhibition said that after looking at all the photographs he got the impression that the church and faith is still quite important to older people in Wrexham, while he thought it did not play a role anymore in today's society. This was a surprising insight to him. Other visitors noticed that all sorts of activities are important to older people, like painting, making crafts, reading walking, directing a choir and gardening. They found the wide range of activities older people undertake remarkable. Thus, awareness of a small part of the community on older people's health assets was raised. This is a promising result for future research and shows that this aim can be achieved.

Engaging people in an action process was not achieved, since the execution of the action planning and advocacy phase of the photovoice process did not fit within the time frame of this study. However local health promoters intend to take on the execution of this phase, so hopefully this aim will be achieved in the future.

Objectives

Increase older people's awareness of health assets present in their community.

This objective has been realized throughout the whole photovoice process. By providing participants with a photo mission to photograph assets for their health they started to think more consciously about what keeps them healthy. Several participants mentioned that by executing the photo mission they realised how rich their lives and community are, they became more aware of their own health assets.

During the focus group discussions participants got to know each other's health assets, which increased their awareness of a range of health assets beyond their own. Participants even encouraged each other to use health assets which they themselves experienced as supportive in the process of healthy ageing. For example two participants who run a lunch club invited another participant to also join their club, after he told the group he likes to go to a lunch club. Furthermore when a participant told the group he would like to go to a swimming class, but did not know how to take action on this, a participant explained him how he could join her swimming class for free.
Furthermore this objective was achieved during the exhibition, where seven of the participants were present. Again they saw new health assets represented by photographs taken by participants who did not take part in their group discussion.

Revealing older people's perceived health assets to community members and policy makers.
This objective was intended to be realised by the public exhibition. However, as mentioned above, because of the limited attendance of the exhibition this objective was achieved to a limited degree. Attention has been given to the study, its findings and the exhibition in an article in Glyndŵr University's newsletter (Appendix 4). This might have helped in revealing older people's health assets to university staff. Still, the awareness of only a small part of the community was raised.
To further increase the community's and policy maker's awareness the report on this study will be send to participants and Age Concern. Age concern could take advocacy for healthy ageing based on this report and future research forward; they have the network and authority to reach and influence policy makers.

Provide input for future research on advocacy and action for healthy ageing in Wrexham.

This study certainly provided input for future research on healthy ageing in Wrexham. Local health promoters intend to continue photovoice research on healthy ageing. The report on this study will be send to them to provide them with information on the method, theoretical framework and findings, but also on recommendations to prevent the limitations experienced in this study in future research.

5.3.2 Limitations

Limitations of the research relate to recruitment, drop-out, time of year, limited amount of time, equipment during interviews, skills during interviews, the focus group discussions, found literature as context for findings on health assets and the level of participation.

Recruitment

Self-perceived healthy and/or well participants

Recruitment in this study might not have resulted in the most self-perceived healthy and/or well persons. During the small talk to explain the project and in the project information letter older people were made aware that perceiving yourself as ageing healthy and well was a precondition to participate in the study. However after signing up participants were often ill or not well, which caused drop-out and delay during the research process. This criteria could have been more emphasised to get participants who are good examples of healthy ageing. However health can change quickly over time and self-perceived good health does not have to match objective health status, so delay and drop-out because of illness and not feeling well might have been inevitable.

Ratio of male and female participants

Sampling resulted in far more women (11) than men (3). The male perspective on healthy ageing might have been explored too little because of this. Including more men could have provided a wider range of health assets and views on health, well being and healthy ageing and could have enabled a comparison between male and female perceptions. However, in all groups where recruitment took place there were more women than men, except for the "men's cooking course". So women might just be more active and therefore better represented in the research.

Project information letter

In the beginning recruiting participants was quite hard. People liked the idea of the project, but did not sign up. This might have been caused by a too formal and long project information letter. The project information letter was then adapted, less scientific language and an informal tone were used and the letter was shortened (Appendix 2). The first version of the project information letter might have stopped older people from participating, which might have resulted in a loss of valuable information.

Drop-out

The research process suffered from drop-out; several older people signed up to participate but decided to end their participation later on. Four participants dropped out before the initial interview, one during the initial interview, three after the initial interview and one during the photo mission. Participants had different reasons to drop-out: some felt not well enough to continue their participation, one lost her daughter and was too sad to undertake anything, one felt too nervous and worried about working with a digital camera, one stated he was surprised by the amount of work

and did not want to do multiple meetings and one was discouraged to participate by his daughters who were worried about the ethics and their father possibly ending up in a fight over photographing other people.

This shows that the explanation of image ethics might also be a limitation next to a strength as previously mentioned. When participants discuss the study with others the ethics might be misinterpreted by them by which unnecessary concern and drop-out is generated. Future research might emphasize that participants do not have to take photographs of others and that the subject consent forms are meant to stay out of trouble instead of causing any. Moreover, an information sheet on ethics and subject consent forms could be handed out to participants to show to any concerned friend or relative.

To prevent more drop-out cases like the participant who was surprised by the amount of work, the amount of work and number of meetings was emphasized during further recruitment, so that people fully realized what they signed up for.

Time of year

Business during festive season

The fieldwork for this study was conducted during September 2012- January 2013, which included the busy time of year around Christmas and New Year's Eve. Participants were very busy from the beginning of the month December; they were often out and did not answer the phone or respond to messages left on their answer machines and had only very limited availability for interviews and focus group discussions. This made it hard to plan the meetings. During recruitment after drop-out mid November some people already mentioned that it was "*almost Christmas*" and that they therefore did not want to participate. Thus for a month and a half the time of year was not ideal to conduct research because of the festive season.

Weather

The time of year limited the range of health assets photographed by participants. Several participants mentioned they would have liked to photograph the outdoors which they love, but the weather was too bad to go out. These people now often took photographs inside and around the house or of other indoor activities. Future research might be conducted during the spring or summer, when the weather is better, to get a wider range of health assets, including outdoor activities. However, healthy ageing is not something people only do during the spring or summer, they also do it in the autumn and winter when the weather is bad, so it is equally interesting and relevant to do research during this period.

Limited amount of time

More time preferred for photo mission

Almost all participants mentioned they would have liked more time to complete the photo mission. There were often two to three weeks in between the initial interview and collecting the pictures. Participants would have preferred to have at least a month to complete the photo mission, so that they would have had more time to think about what to photograph and for example also be able to photograph monthly meetings or outdoor activities when the weather would be good. For this study only a limited amount of time was available, but future research might give people more time to complete the photo mission.

No action and advocacy phase

A final issue concerning time is that there was no time to do all steps of the photovoice process. Usually there is an action and advocacy phase at the end of the process, but this did not fit within the timeframe of the study. However, local health promotion staff intends to take on the execution of the action and advocacy phase.

Equipment during interviews

During the first few initial interviews there was no voice recorder available. Participants waited for the researcher to write their comments down, which made the conversation less fluent and spontaneous. Moreover the researcher could not literally write down everything the participants said, but only key words and fragments. Information might have been lost here. When using a voice recorder people were more chatty and the researcher was able to transcribe the full text, which resulted in richer data.

However four out of the ten participants who did the initial interview without a voice recorder dropped out, so only six participants' initial interviews provided less rich data. Furthermore, those participants were given the opportunity to add to what they had said about health, well being and healthy ageing in a next interview when the voice recorder was available, but none of the participants wanted to add something. Future research should make sure to have all equipment available from the beginning of the study to provide all participants optimal circumstances to share information.

Skills during interviews

Another limitation of the study was the researcher's skills in steering the second individual interviews. The researcher struggled with finding a balance between interrupting off topic talk and

keeping the conversation going and creating background information. Interrupting sometimes seemed impolite and could have damaged participants' trust. Even though parts of the conversations were off topic and transcribing the second interviews was a lot of work, in the end rich data has been gathered during these interviews.

Focus group discussions

Participation

Not all participants participated in a focus group discussion; three were not able and one was not willing to participate. The three people who wanted to participate, but were not available at what appeared to be the most ideal moment for the group to meet, did not get the opportunity to reflect on health assets together and to share their stories with the group. This is a missed opportunity to gather useful information and to increase participants' awareness of health assets present in their community. Furthermore participants who did not take part in a focus group discussion are less likely to have been empowered, since individual empowerment is particularly enhanced by the iterative process of taking pictures and discussing them in the group (Catalani and Minkler, 2001). Future research should try to let all participants participate in a focus group discussion.

Length of discussions

The first focus group took 2h45min and the second took 2h20min. Near the break in the middle and towards the end of the sessions some participants were getting tired or bored and were not giving much (useful) information anymore. To make the group discussion more comfortable and productive these sessions should be shorter, possibly by discussing less pictures per person or discussing the pictures quicker and into less depth. To have less participants in a group discussion to reduce the amount of pictures they discuss, would perhaps not be a good solution, since this would result in too few participants (four or less) to keep the discussion going.

Facilitator skills

Another limitation was the researcher's skills in facilitating the focus group discussions. During the focus group discussions the researcher experienced difficulties similar to the ones previously mentioned on the second interviews. Participants easily went off topic and sometimes seemed to prefer off topic conversation at moments when they were bored or tired. Again it was hard to decide when to interrupt and stop the off topic conversation, as the conversation might go somewhere in the end or provide nice background information, this is a skill that requires more practicing.

Found literature as context for findings on health assets

Only one article (Naaldenberg et al., 2010) was found on older people's perceived assets for health and well being. If more literature would have been found, this would have given more material to compare the findings of this study to in the discussion. Now the health assets found in this study could only be compared to one set of findings created in previous research on older people's perceived health assets. Because of the limited amount of found literature on previous research not much value can be attached to statements on whether the findings of this study were confirmed or contradicted by the current body of knowledge. Future research could focus on a further search for literature on older people's perceived health assets. However there might just be no research executed or published in this field, then future research could be conducted to fill this gap.

Level of participation

The higher the level of participation in a photovoice process, the better the outcomes. A high level of participation enhances community engagement in action and advocacy, understanding of community needs and assets and individual empowerment. Levels of participation can vary between low, medium and high (Appendix 1). The level of participation in this research was medium; the researcher and participants worked together, but the study was designed, initiated and managed by the researcher (Catalani and Minkler, 2001). To enhance the outcomes future research might aim for a high level of participation in which the researcher is just an advisor while the participants lead every stage of the photovoice process.

5.4 Implications for practice

This study mapped older people's perceived health assets present in their lives and in the community of Wrexham. Knowing which health assets are available can help the community, researchers, policy makers and organizations that work in the field of health promotion for older people in understanding how they can take action and implement health policy in a way that fits the community of Wrexham, using assets at hand (Morgan and Ziglio, 2010). Health promoting initiatives of any of these parties could promote the awareness and availability of key health assets for all older people in Wrexham and surroundings identified in this study, like health assets related to social contact, faith, physical health and well being, activities, physical environment, mobility, independence and a positive and realistic attitude.

For example this study showed that social contact is very important to older people's health and well being, all participants (except one) selected at least one photograph to be exhibited which was related to social contact with family, friends, other company or pets. Policy makers could take this into account in for example urban design. By creating affordable housing for elderly and family houses near each other social contact within families is facilitated. Furthermore social activities especially for older people, which were highly appreciated for company and social contact with friends, could be stimulated and organised by policy makers and organizations.

This study also showed that older people valued (free) exercise classes, nature, walking space and the presence of a swimming pool and exercise studio related to physical exercise, health and well being. Policy makers and organizations could promote exercise for older people by for example realizing (publicly subsidized) free exercise classes and swimming hours for older people and by creating and maintaining swimming pools, exercise studios, walking space and nature in the whole community.

5.5 Recommendations for research

Using the photovoice method to map older people's health assets is an intensive process, which requires a lot of time and effort from both participants and the researcher. However, it results in rich data and has the potential to increase policy makers' and the community's awareness of older people's perceived health assets, therefore this approach is recommended for future research.

To prevent the previously mentioned limitations future research could take the solutions to these issues as mentioned in 5.3.2 into account.

To assess whether the findings of this study can be generalized to a wider group or population the findings of this study could be tested quantitatively.

6.) Conclusion

This conclusion answers the main research question of the study, namely “What are the perceived health assets of older people in the community of Wrexham?”

Health assets perceived to support older people in the process of healthy ageing were social health assets, faith, assets for physical health and well being, activities, the physical environment, assets for mobility and independence and a positive and realistic attitude.

Social health assets are family, friends, other company and pets. Ways to stay in contact with these people, like the computer, facebook and letters are related health assets. Furthermore social activities and having a need for social contact are social health assets.

Faith itself, and the services and religious activities in which it involves older people are health assets.

Several health assets are related to physical health and well being, like the availability of healthy food, motivation to eat healthily and the price of healthy food. Furthermore free swimming lessons, exercise classes, exercise equipment at home, walking space, doctor’s referral to exercise classes, medicinal tools and health care and beauty facilities support older people in healthy ageing.

Activities are a health asset for older people, this relates to older people’s hobbies and work.

Health assets related to the physical environment are shops, markets, a coffee shop, a garden centre, a terrace, home, a garden , nature, public gardens, swimming pools, exercise studios and churches.

Assets for mobility and independence are a car, a computer and the help of a cleaner and gardener.

Finally, having a positive and realistic attitude helps older people in healthy ageing.

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Appendix 1 - Photovoice theory

An important aspect of this study was the use of photovoice. Since photovoice is a relatively new and innovative research method this section will explain the concept of photovoice, its goals and theoretical basis and the outcomes of the method. Furthermore the strengths and limitations of using the photovoice method will be discussed as well as the issues in using photovoice with older people. Finally ethical issues will be explained.

Concept and goals

Photovoice is a participatory health promotion strategy that enables people to assess the strengths and concerns of their community by creating and discussing photographs (Wang and Redwood-Jones, 2001; Wang et al, 1998).

Photovoice was first developed as a research method in the mid-1990s by Caroline Wang and her colleagues (Wang and Burris, 1997). They describe photovoice as a participatory health promotion strategy that enables people to assess the strengths and concerns of their community by creating and discussing photographs; whereby people participate in a group process of critical reflection and discussing their photographs, which can enable them to gain critical consciousness of their views and community. This process may catalyze personal change and empowerment or indeed community change when the pictures, stories and shared knowledge produced by critical reflection are then communicated with policy makers (Wang and Redwood-Jones, 2001; Wang et al, 1998). Photovoice hereby increases individual's and community's access to power by providing them with means to show their perception of a community's strengths, concerns, and assets firsthand by means of pictures and stories, which can promote critical dialogue and reach policy makers to create action and change (Wang and Burris, 1997).

Photovoice has three goals; '*(1) record and reflect people's community's assets and concerns, (2) discuss issues of importance to the community in large and small groups to promote critical dialogue and produce shared knowledge, and (3) reach policy makers'* (Wang and Redwood-Jones, 2001, p. 560).

Catalani and Minkler (2010) state that photovoice is also highly consistent with the core principles of Community Based Participatory Research (CBPR), namely '*empowerment and an emphasis on individual and community strengths, co learning, community capacity building, and balancing research and action*' (p. 425). Thus, photovoice as a research method can be characterised as a participatory and community based method which results in action.

Theoretical basis of photovoice

Photovoice is based on three major theoretical understandings, namely Poalo Freire's approach to education for critical consciousness, feminist theory and a community based approach to photography (Wang and Burris, 1997; Wang and Redwood-Jones, 2001).

Paolo Freire believed that every person is capable of looking critically at the world and their own reality of it by engaging in critical dialogue (Wang and Redwood-Jones, 2001). At the level of critical consciousness individuals become aware that their assumptions shape the interpretations of reality and that they can choose to maintain or change that reality (Carlson et al., 2006). Visual images represent realities and can be a '*tool for enabling people to think critically about their community*' (Wang and Burris, 1997; Wang and Redwood-Jones, 2001, p. 561).

Feminist theory noted that the tools of Freire and participatory research in general ignored the domination of women by men. The men dominated and therefore participated, which biased the research. The photovoice method can be performed by any person, since practically anybody can learn to work with a camera. Therefore photovoice can be a powerful tool for people who are otherwise seldom heard to bring their perspectives, ideas and knowledge into the public debate and create action and change (Wang and Burris, 1997; Wang and Redwood-Jones, 2001).

Finally photovoice is based on the use of a community based approach to photography. Since the 1970s photographers started to let community members take pictures themselves instead of letting them be the subjects of pictures made by professionals. Community activists now used photography as a tool to enable people to reflect on community's strengths and concerns and advocate policy. This "community photography" is defined as *'a way of thinking about how ordinary people could appropriate the camera for social change'* (Spence 1995, as cited by Wang and Redwood-Jones, 2001, p 561). The work of these community activist photographers inspired the developers of photovoice to integrate community participation, health concerns and the visual image (Wang and Burris, 1997; Wang and Redwood-Jones, 2001).

Photovoice outcomes

In their review of 46 articles on photovoice Catalani and Minkler (2010) describe three key outcomes or benefits of using photovoice: (i) enhanced community engagement in action and advocacy, (ii)

enhanced understanding of community needs and assets and (iii) increased individual empowerment.

Enhanced community engagement means that members of the community are more involved in action and advocacy as a result of the photovoice process.

Enhanced understanding of community needs and assets can be created by sharing information and creating dialogue among '*photovoice partners, service providers, local policy makers and other influential community members, and the broader community*' (Catalani and Minkler, 2010, p. 445).

Individual empowerment for example exist of an increased sense of control, awareness, efficacy and critical consciousness. Individual empowerment is particularly enhanced by the iterative process of taking photographs and critically discussing them in the group. The group discussion therefore not only results in rich data for research, but also in empowerment of participants which directly benefits them and their environment (Catalani and Minkler, 2010).

These three outcomes of the photovoice process are summarised in the photovoice impact model (Figure 1). This model shows that the photovoice process starts with training, followed by the iterative process of taking photographs and discussion of photographs in the group. All outcomes are positively related to the level of participation during the photovoice process. The level of participation can be low, participants have minimal interaction with each other and with researchers; medium, participants and researchers work together, but studies are designed, initiated and managed by researchers; or high, researchers are advisors while the participants lead every stage of the photovoice project. To achieve optimal outcomes researchers should aim for the highest feasible levels of participation during all stages of the process of their photovoice study (Catalani and Minkler, 2010).

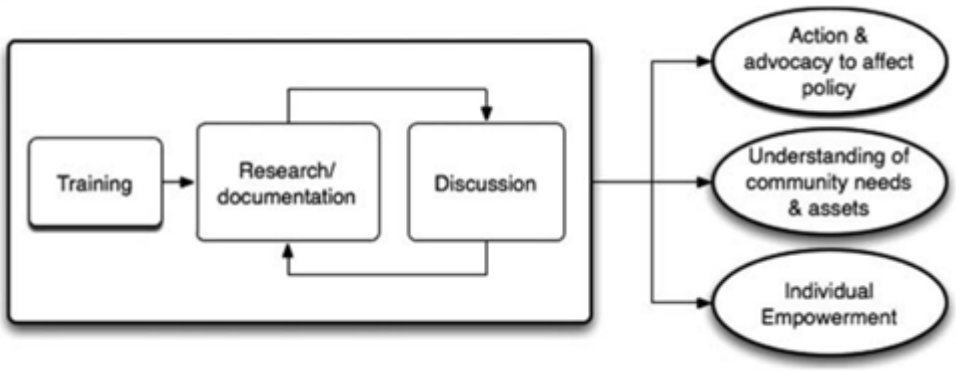

Figure 1: Photovoice impact model (Catalani and Minkler, 2010).

According to Strack et al. (2010) outcomes can be divided into short term outcomes on individual, interpersonal, organizational and community level, and long term outcomes (Text box 1). "*Individual change and empowerment are desired outcomes of the photovoice process, but more importantly, the process seeks to engage groups and whole communities to foster positive systems change*" (Strack et al., 2010, p. 629).

Box 1: Short and long term outcomes of the photovoice process

Short term outcomes

Individual level

- Participants gain knowledge (on health topics) and advocacy skills and see themselves as community change agent (attitude)
- Change in advocacy and health behaviour of participants

Interpersonal level

- Group empowerment and positive social norming
- Change in knowledge, perceptions and actions of a social network

Organizational level

- Opportunities for pro-social community involvement of host organization
- Strengthening organization's 'informational' and 'influence' network
- Policy changes within the organization

Community level

- Positive changes in community's perceptions, knowledge, actions and social norms
- Change or introduction of policies and regulations
- Physical changes in the community

Long term outcomes

- Policy and socio-environmental changes
- Changes in health status of the community

(Strack et al., 2010)

Strengths and limitations of the photovoice method

In the literature several strengths of the use of the photovoice method were mentioned, these have been reviewed and summarised in text box 2.

Box 2: Review of strengths of using photovoice

Photovoice …

- Shows what the community (not researchers) perceives as important
- Uses a powerful form of communication; the visual image
- Enables researchers to reflect on settings otherwise not available to them
- Can be used with vulnerable populations
- Can sustain participation since camera's are a motivating tool
- Is a flexible method; goals can be adapted during the process
- Enables participants to share stories and experiences of others
- Provides participants with photographs to give back, this creates ties and shows appreciation
- Reflects not only on community's needs, but also on its assets
- Can result in action and advocacy; is more than a common needs assessment
- Has a high level of adaptability; is suitable for diverse objectives, groups and issues
- Enables participants to show their material and social worlds
- Enables less vocal people to contribute to the dialogue by visual means

(Wang and Burris, 1997; Carlson et al., 2006; Strack et al., 2010; Wang et al., 1998; Novek et al. 2012)

The use of the photovoice method also has some limitations, these have been reviewed and summarised in text box 3.

Box 3: Review of limitations of using photovoice

- Participants can be at risk of unpredictable outcomes when reflecting on politically sensitive topics
- Personal judgement during the process intervenes representation
- Material and status inequalities may be reproduced by photovoice
- Photographs might be easy to collect, but complex to analyse and summarize
- Large scale projects require cooperation and might suffer from limited resources and communication
- Methodological ideals might not be applicable in practice
- Full participation can be burdensome, impractical or infeasible for participants

(Wang and Burris, 1997; Wang et al., 1998)

Issues in using photovoice with older people

There are some specific issues related to the use of photovoice with older people, these are summarized in text box 4.

Box 4: Issues in using photovoice with older people

- Using photovoice with older people is likely to generate a selection bias.
- Older people might need to keep a journal to facilitate recall.
- Older people might need assistance and special equipment.
- Older people's life experience should be genuinely appreciated and honoured by researchers.
- Researchers need to gain the community's trust.
- Researchers should take the principles of PAR seriously.
- Tension between the motivation for personal investment in the study and the delayed outcomes of it.
- Bandwidth of validity needs to be broadened to be an adequate evaluation concept for photovoice.

(Novek et al., 2012; Blair and Minkler, 2009)

Issues concerning the use of photovoice in the field during photovoice studies with older people have been identified (Novek et al., 2012). The use of photovoice with older people is likely to generate a selection bias towards healthier, younger individuals. This is caused by the expectations of older people in attending and participating in group meetings and to work with a digital camera (Novek et al., 2012). The training phase of PAR is valued because it improves the data collection and provides participants with skills. However these trainings might not address power imbalances if people who get the training are already the more privileged ones because of bias (Blair and Minkler, 2009).

To understand the meaning of pictures participant recall is important. To facilitate participant recall among older people the participants kept a journal on their pictures, which were reviewed and if necessary completed after taking pictures (Novek et al., 2012).

For older people who are unfamiliar with the use of a digital camera or have less finger dexterity or poor eyesight the use of a digital camera may be more difficult; researchers devoted considerable time to make sure that they felt comfortable using the camera and provided assistance and special equipment (Novek et al., 2012).

As explained previously photovoice is a type of Participatory Action research (PAR). Blair and Minkler (2009) identified core themes and lessons that should be addresses if PAR with older people is to reach its full potential.

One of the lessons is that older people's life experience should be genuinely appreciated and honoured; the knowledge that older participants share should be valued and reinforced. Another lesson is the need for mutual trust between participants and researchers in PAR. Researchers can gain community's trust by showing they are committed to create change. Moreover researchers should take the principles of PAR seriously, for example by not seeing the participants as needy or troubled but as possible agents for change.

Furthermore older people can experience a tension between motivation for personal investment in the study and doubts about seeing the outcomes of it considering the slow pace of change. To encourage these people to participate researchers can emphasise that a contribution to an individual's well being is also a nice result; results do not have to be big changes.

Finally a lesson is that the bandwidth of validity needs to be broadened to be an adequate concept to evaluate photovoice. Photovoice studies are qualitative and aim '*to provide exemplary rather than generalisable information*' (Blair and Minkler, 2009, p. 660). There is a contradiction in the strength of the photovoice method; the external validity is improved by making the study locally relevant, but hereby limits the generalisability of findings to other communities. To assess the validity of a photovoice study more attention should be given to issues like whether the research question comes from or is important to involved communities (Blair and Minkler, 2009).

Ethical issues in using photovoice

Ethical issues related to photovoice are four types of image ethics and ethical issues related to recruitment, representation, the role of the facilitators and participant safety.

The freedom of expression and inquiry may conflict with respect for privacy. This resulted in four image ethics on the moral rights of people appearing in images, which describe four types of invasion of people's privacy. To address these ethical issues participants should be informed on ethics during their training (Wang and Redwood-Jones, 2001).

First, '*intrusion into one's private space, or even into one's privacy while one is in a public space if one has not consented to be filmed or photographed*' (Gross et al., 1988; as cited by Wang and Redwood-Jones, 2001, p. 563). By taking a picture a photographer can create meaning about a person, group or community in the picture, this action is not neutral. To solve this ethical issue the researchers can use three types of consent forms; a participants consent form on basic ethical protocols and the rights and responsibilities of the participant, an "acknowledgement and release" consent form to be

signed by the subject before being photographed and a consent form on publication or use of photographs to be signed by the participant (Wang and Redwood-Jones, 2001; Novek et al., 2012).

The second image ethic is '*the disclosure of true but embarrassing facts about individuals, when these facts are not deemed a legitimate concern to the public*' (Gross et al. 1988; as cited by Wang and Redwood-Jones, 2001, p. 563). Photovoice is meant to empower a community and not to embarrass it's members, therefore embarrassing images cannot be used, even if the subject gave permission (Wang and Redwood-Jones, 2001).

Third, '*being placed in a false light by images which distort the truth and create false impressions of one's intentions, character or actions*' (Gross et al. 1988; as cited by Wang and Redwood-Jones, 2001, p. 564). For photovoice this relates to the pictures and stories on the pictures; the interpretation of a photograph should not conflict with the feelings or thoughts of the subject (Wang and Redwood-Jones, 2001).

Fourth, the use of a person's likeliness for making commercial benefit at that person's expense. This means that participants are the owners of the photographs they create during the photovoice process, these can only be published or used with their permission. (Wang and Redwood-Jones, 2001).

An ethical issue related to recruitment is that photovoice aims to make participants, who are often from poor and/ or minority groups, organise themselves for change and hereby blames the victim. To overcome this problem researchers could also recruit activists, policy makers and community leaders (Wang and Redwood-Jones, 2001). However, one could also argue that photovoice does not blame the victims, but empowers them.

An ethical issue related to representation is the question who selects the photographs that will be shown to the public. Participants should do this and not the researchers, otherwise '*is the community voice really being heard?*' (Wang and Redwood-Jones, 2001, p. 568).

There are also some ethical issues related to the facilitator. A facilitator should be neutral, but in a photovoice process the facilitator is openly committed to certain social changes (Wang and Burris, 1997). Nevertheless, the facilitator should not impose his or her opinion on the participants and not limit them in their interpretation of the topic (Wang and Redwood-Jones, 2001).

Finally participant safety should be most important; when taking pictures '*participants are not to take any type of personal risk that might induce anxiety or fear of social consequences'* (Novek et al., 2012, p. 465).

Summary – Photovoice theory

Photovoice is a participatory and community based health promotion strategy that aims to '*(1) record and reflect people's community's assets and concerns, (2) discuss issues of importance to the community in large and small groups to promote critical dialogue and produce shared knowledge, and (3) reach policy makers'* (Wang and Redwood-Jones, 2001, p. 560). Photovoice is based on three theoretical understandings, namely Poalo Freire's approach to education for critical consciousness, feminist theory and community based approach photography.

The photovoice impact model describes three categories of outcomes, namely enhanced community engagement in action and advocacy, enhanced understanding of community needs and assets and finally increased individual empowerment. All these outcomes are positively related to the level of participation in the study.

The social-ecological model for guiding photovoice efforts distinguishes short term outcomes on individual, interpersonal, organizational and community level and long term outcomes (box 2).

The use of the photovoice method has several strengths (box 3) and limitations (box 4). Specific issues arise when using photovoice with older people (box 5).

Ethical issues in using photovoice are four types of image ethics and issues related to recruitment, representation, the role of the facilitators and participant safety. The image ethics are intrusion into one's privacy, disclosure of true but embarrassing facts, placing an individual in false light and use of a person's likeliness for making commercial benefit at that person's expense.

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Appendix 2 – Project information letters

The first letter shown in this appendix is the first version of the project information letter which was used to recruit participants. The second letter is the final version, which was created and used in recruitment after recruitment appeared to be hard and the letter appeared to be not easy to read.

Project information letter - Photovoice & healthy ageing

Healthy ageing in today's society: exploring older people's views about positive experiences of health and well being

My name is Mirna van Straten, I am a post-graduate researcher from The Netherlands. I study 'Health and Society' at the Wageningen University, but currently I am doing a four month internship at Glyndwr University in Wrexham. I am interested in understanding more about how people stay healthy and well as they age.

You are kindly invited to participate in my study on healthy ageing. I will use the photovoice method. Photovoice will enable you to photograph and discuss how you manage to stay healthy and well as you age. Pictures and stories will be shown to the community and to policy makers (e.g. local council members, members of national political parties) by a photo exhibition. I hope that this will result in identifying strategies for change and creating action plans to improve the health and well being of older people.

I am particularly interested in the types of resources or "assets" that older people draw up on to help them stay healthy and well.

'A **health asset** is any factor or resource, which enhances the ability of individuals, communities, and populations to maintain and sustain health and well-being. These assets can operate at the level of the individual, family or community as protective or promoting factors to buffer against life's stresses' (Morgan, 2009; as cited by Assets Alliance Scotland, 2010).

Examples of assets are: high self-confidence, friendship, safe and pleasant housing, and feeling connected to one's community.

My study will comprise an initial interview in which I will explain the study in more detail.

Main research question

What are ways of communicating and addressing older people's views on healthy ageing in their community?

Aim:

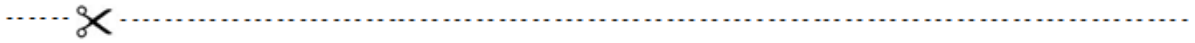
Promote images of healthy ageing in the community, enhance older people's participation and thereby improve their health and well being.

Can I participate?

My study is about people who perceive that they succeed to age in good health and/ or well being and who experience life to be positive. The minimum age to participate is 65 years, there is no maximum age. You have to be able to attend group discussions and interviews and be willing to work with a digital camera.

If you have any questions, please contact Mirna van Straten

Email:	mirna.vanstraten@wur.nl
Mobile number:	0031 6 38539006
Glyndwr University Office:	01978 29 3554



Yes, I would like to participate in the Photovoice & Healthy Ageing Study

Name: ……

Address: ……

……

Phone number: ……

Email address: ……

Age: ……

Any comments/ questions: ……

……

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Healthy ageing in today's society: exploring older people's views on positive experiences of health and well being

My name is Mirna van Straten, I am a post-graduate researcher from The Netherlands. I study 'Health and Society' at the Wageningen University, but currently I am doing a four month internship at Glyndwr University in Wrexham. I am interested in understanding more about how people stay healthy and well as they age.

You are kindly invited to participate in my study on healthy ageing. I will use the photovoice method, this uses photographs and discussion to explore how you manage to stay healthy and well as you age. Pictures and stories will be explored together and a small selection will be chosen to display in an open exhibition. I hope that this will result in identifying strategies for change and creating action plans to improve the health and well being of older people.

I am particularly interested in the types of things or resources that older people draw up on to help them stay healthy and well.

I am interested in asking older people: What things in your life keep you feeling well and healthy?

My study will (i.a) comprise an initial interview in which I will explain the study in more detail.

Can I participate?

The minimum age to participate is 65 years, there is no maximum age. You have to be able to attend group discussions and interviews on three separate occasions and be willing to work with a digital camera.

If you have any questions, please contact Mirna van Straten

Email:	mirna.vanstraten@wur.nl
Mobile number:	0031 6 38539006
Glyndwr University Office:	01978 29 3554

Yes, I would like to participate in the Photovoice & Healthy Ageing Study

Name: ……

Address: ……..

……

Phone number: ……..

Email address: ……

Age: ……

Do you have your own digital camera? (not necessary!) yes / no

Any comments/ questions: ……

……

Appendix 3 – Invitation for the exhibition

Invitation

Hereby you are kindly invited to attend the exhibition to share the findings of the research project "Healthy ageing in today's society: revealing older people's resources for health using photovoice."

Find out what keeps older people in Wrexham healthy and well by means of pictures and stories that were created by a group of local older people during the last months.

Thursday January 17th 2013

2–4 pm

Catrin Finch Centre, Glyndwr University Campus, Wrexham

Acknowledgement

We would like to thank all participants and the team of Age Concern North East Wales for contributing their time and effort to make this research project possible.

RSVP

Mirna van Straten

mirna.vanstraten@wur.nl

Appendix 4 – Article in Golwg; Glyndŵr University's newsletter

Research Centre for Health, Wellbeing & Society

Glyndwr University – Photo-voice exhibition

Thursday January 17th 2013 an exhibition took place relating to a research study into "Healthy ageing in today's society: revealing older people's resources for health using photo voice" undertaken by Mirna van Straten – MSc (Health promotion) student from Wageningen University (Netherlands) – working with Dr Lynne Kennedy - Health Sciences- at Glyndwr University.

The study used 'Photo – voice' as an innovative 'Participatory Action Research' method to produce images of resources for health (also called health assets) of older people living in Wrexham, to show how these older people manage to maintain their health and well being as they age. This approach emphasises the positive side of ageing and does not, like many other studies, focus on needs or problems that older people might have. As part of the research methodology, the views and ideas on ageing well of older people themselves are shared with statutory and voluntary organisations involved in the design and delivery of older people services.

A group of fourteen local older people took part in the research and their pictures and 'stories' or narratives of ageing well, were exhibited in the Catrin Finch centre.

*"This theme looks at how, unlike in traditional medical and health care systems which focuses on identifying 'problems', asset-based models tend to focus on positive ability, the capacity to identify problems and find solutions in individuals and communities - which can help reduce dependency and reliance on professional services. This approach acknowledges people's strengths and focuses on understanding pathways to health, rather than always emphasising what makes us ill" (*Lynne Kennedy).

Mapping older people's resources for health in the community of Wrexham can help researchers, policy makers and organizations to understand how they can take actions and implement health policy in a way that best fits the community, using the resources at hand. Moreover mapping resources for health can raise awareness among community members of resources and can be a first step in mobilizing a community to use its resources to improve health.

Two examples of pictures and stories created by older people are attached.

I like to visit gardens that are open to the public, this is Bodnant garden in Snowdonia in autumn. It is a beautiful garden to which I return two or three times a year for the last thirty years. "*It is returning to somewhere I know, that I know I will enjoy and like...*"

I visit gardens quite often, wherever me and my husband go, if there is a garden we visit it. Sometimes we go to a garden that belongs to a property, but I am mainly interested in the garden, I like the fresh air and want to be outside.

To me visiting a garden is a relaxing and refreshing day away. *"…I think a day away from your normal surroundings refreshes you. When you sit in the house there is always something to do, it is business. Whereas if you come to a place like that, there are no people there and it is just closer to nature and it is better for me mentally, physically and spiritually I would say.*"

ER, female, 79

In my prime I was a semi-professional soloist and did a lot of things. I now conduct the choir of Trinity church in Wrexham which has about 30 members. In this picture I obviously want them to sing. They practice every Sunday evening after worship.

It means everything to me really, that is the whole of my musical life there. "*I feel that I am very fortunate that in my old age now I have had the joy and the privilege of taking this choir in Trinity and I love every minute of the rehearsals. We have lot of laughs, sometimes I talk too much. But it means I can continue to do music."*

I feel that all music is therapeutic, it makes you feel better and it can be soothing. Sometimes a member of the choir comes in feeling a bit down, but by the end of the rehearsal they are more relaxed. Therefore I think music is a very powerful gift.

PD, female, 80