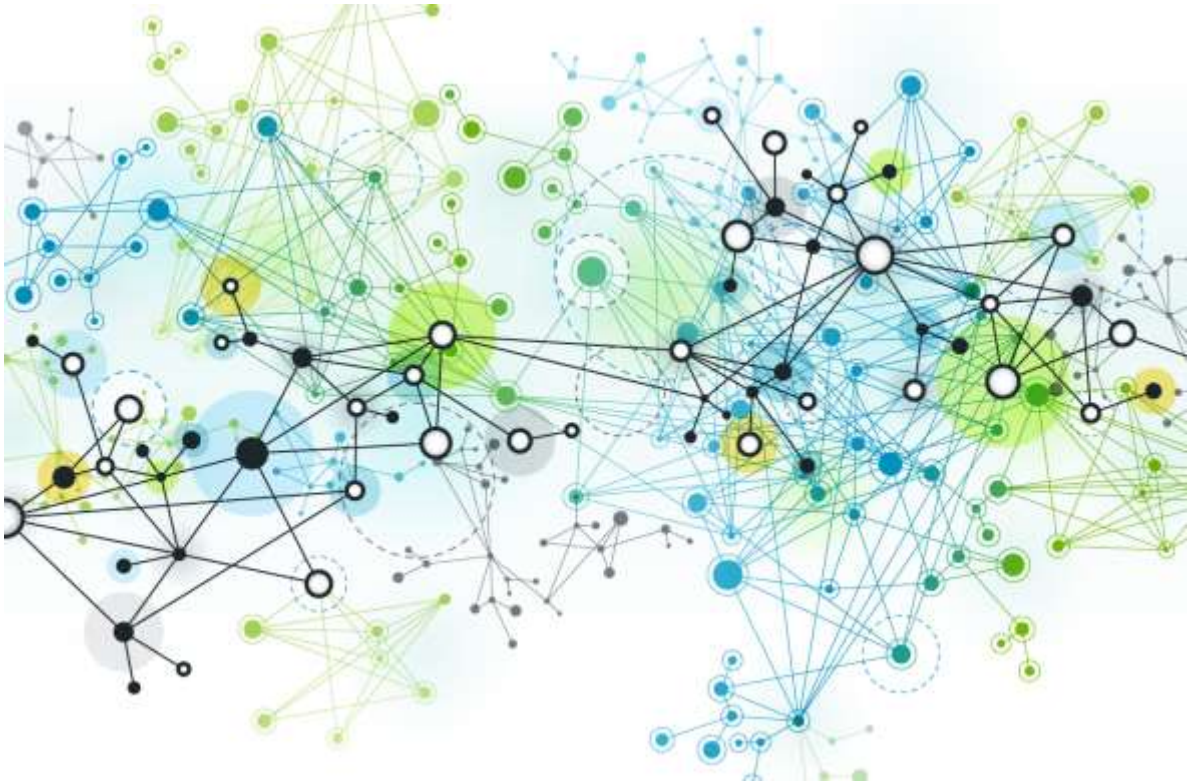
Mapping health capacity in the local setting

Usage of a capacity mapping tool in the context of care-PA initiatives in Veenendaal and Arnhem



WAGENINGEN
UNIVERSITY & RESEARCH

Program MSc Thesis Health & Society
Student Daan Sartorius
Supervisors Dr. K.T. Verkooijen & L. Mulderij MSc

MAPPING HEALTH CAPACITY IN THE LOCAL SETTING

Usage of a capacity mapping tool in the context of care-PA initiatives in Veenendaal and Arnhem

Name: Daan Sartorius

Reg. No.: 930911 728 110

June 2018

Master Program: Communication, Health and Life sciences

Specialisation: Health & Society

Thesis code: HSO-80333

Chair group: Health & Society

Supervisors: Dr. K.T. Verkooijen & L. Mulderij MSc

WAGENINGEN
UNIVERSITY & RESEARCH

Preface

"The part can never be well unless the whole is well."
Plato

Dear Reader,

This document contains my master thesis on care-PA initiatives in Veenendaal and Arnhem. After months of studying the concept of capacity and mapping this in a local setting, I am proud to present a thesis that elaborates on health promotion in the municipal setting. During the Bachelor and Master program of my study Health & Society I learned that health promotion is so much more than individuals practising healthy behaviour. It considers the social environment, physical environment, the resources available, personal motivation and innumerable other factors. The municipal context is a beautiful setting to research this topic, as it is the environment where policy meets practice; where theory meets implementation; where barriers are overcome and individual successes are achieved.

Inspired by the challenges of putting health promotion into practice, it was a challenge for me to not to dive in but to keep focussing on conducting academic research with overview and a wide scope. I would like to take the opportunity to thank my supervisors, Kirsten and Lisanne, for inspiring me with new insights, motivating me to deliver at an academic level and accompanying me on this journey. I would like to thank my fellow thesis buddies for making the numerous days in the library much more fun and guaranteeing the occasional coffee break. Lastly, I would like to thank the interviewees and the attendees of the workshops in Veenendaal and Arnhem, as we all need each other to learn from each other, connect academic research and local knowledge and strive for the same goals: improving health and reducing health inequalities.

I look forward to start my internship where I get the opportunity to approach these topics from the view of a municipality. I thank you for reading my life work of the previous months and hope you find it an interesting read!

Daan Sartorius

Summary

The aim of this thesis was to answer the research question: 'What capacity is present for care-PA initiatives in Veenendaal and Arnhem'. This was done to gain insight in the resources needed for these initiatives, to better understand what is needed to increase the success of these interventions. This could contribute to the reduction of SES based health differences in Veenendaal and Arnhem.
Two research objectives were formulated in support of the main research question. The first objective was to adapt the capacity mapping model of Tijhuis (2014) based on local knowledge. For this, two interviews were conducted with local representatives. The second objective was to operationalise the model, with help of this newly obtained local information, into a fitting tool for mapping capacity workshops in Veenendaal and Arnhem.

Based on the public health capacity mapping tool (Tijhuis, 2014), capacity mapping literature and interviews with local representatives, an adapted mapping tool with five clusters was designed that matched the local setting. This tool was operationalised and used to map capacity during workshops in Veenendaal and Arnhem. For all clusters of the new tool, the workshop attendees were asked to write down capacity perceived as present and capacity perceived as not yet present on sticky notes. The sticky notes statements were transcribed and interpreted and overlapping themes were derived per cluster. This way, capacity was mapped in Veenendaal and Arnhem.

Capacity that was perceived available considered skilled and motivated personnel, the local setting, available funding possibilities, health promotion in policy and the umbrella organisations for sport in the municipalities. A lack of capacity was perceived when it comes to overview in programs and funding, embeddedness of collaborations an partnerships and co-creation of health promotion policy. Based on the findings in this thesis, it is recommended to provide an overview in local care-PA initiatives and facilitated collaboration between relevant stakeholders. Also, stimulate the co-creation of health promotion policy and the evidence base for local care-PA initiatives. The local setting is considered a good setting for mapping health capacity. The tool that was created is a useful asset for this purpose although it can use some strengthening in methods to interpret the health capacity mapped.

Table of Contents

List of Figures and Tables

1. Introduction

1.1 Socioeconomic status and Physical activity

Inequalities in health between groups of different socioeconomic status (SES), as measured by education, occupation, and income, form one of the main challenges for public health (Marmot, 2005) and health policy (Stronks, 2001) worldwide. People with access to more economic and social resources are more likely to have better health outcomes than those with access to fewer resources (Mackenbach, 2012). In the Netherlands, people with a high SES live up to 6 years longer than those with a low SES (RIVM, 2014). The difference in perceived healthy life expectancy even differs close to 19 years between these groups (RIVM, 2014).

Physical activity (PA) and sports can play an important role in countering socioeconomic health differences. PA itself is an important contributor to health (Bailey et al., 2013) and a lack of it, physical inactivity, is identified by the World Health Organisation as the fourth leading risk factor for global mortality (WHO, 2009). Many health disorders and other problems that are associated with physical inactivity, including impaired health-related quality of life, as well as direct and indirect economic costs, impose a substantial burden on societies and health systems (Kohl et al., 2012). PA contributes to countering these problems as it can help to reduce the incidence of several chronic diseases and can reverse the disease process in patients who already have these chronic diseases (Warburton & Bredin, 2006). Socially vulnerable groups, such as low SES individuals, show higher prevalence of many of dese diseases (Schrijvers et al., 1999). Also, Sports engagement and engagement in PA is lower in these groups (Wendel-Vos et al., 2009). Therefore, PA offers great potential in reducing socioeconomic health inequalities.

1.2 Public health policy

The global relevance of socioeconomic health inequalities was stressed by the World Health Organisation (WHO) in 1981 with the publication of the 'Global strategy for the Health for All by the year 2000' (WHO, 1981) and was emphasised again in 1999 when the WHO formulated a target regarding SES-related health differences: *"By the year 2020, the difference in healthy life expectancy between people with a low and people with a high socioeconomic status should be reduced from 12 to 9 years, due to a (stronger) increase in healthy life expectancy in the lowest socioeconomic groups."* (WHO,1999).

In line with this international vision on health and SES, the Dutch national government also focused on covering a range of measures and interventions targeting socioeconomic disadvantages as well as measures and interventions targeting the accessibility and quality of healthcare services (Mackenbach, 1994; Mackenbach & Stronks, 2002). Elements of this strategy included the definition of targets, the development of policies and interventions, the reductions of effects of health on socioeconomic disadvantage, and targeting factors mediating the effect of socioeconomic disadvantage on health, specifically by lifestyle (Herens, 2016). These elements are still present in health policy in the Netherlands today. The most recent Dutch public health policy documents put four pillars central in health policy in the coming years: to promote health and prevent chronic diseases with an integrated approach in the living, working, and learning environment; to put prevention central in health care; to

keep health protection up to date and counter new public health threats; and to stabilise or reduce socioeconomic health differences (Ministry of Health, Welfare and Sport, 2015).
The integrated approach, as mentioned in the first pillar of Dutch public health policy, is also found in other recent policy documents. An integrated approach is stressed multiple times as an important factor for attacking socioeconomic health differences in the local setting (Ministry of Health, Welfare and Sport, 2013, Maas & Storm, 2011; Ministry of Health, Welfare and Sport, 2015). For health policy to be effective it is considered necessary to influence multiple policy fields at the same time (Loketgezondleven, n.d. -a). In the specific case of socioeconomic health inequalities, this means that the public health sector has to work together with other sectors to be able to influence health and its determinants (Storm et al., 2007). Important sectors and parties (both public and private) that can be included are: spatial planning and public space, education, safety, finance, social affairs and employment, companies and sports organisations (Schrijvers & Storm, 2009).

To further address the reduction of SES-based health differences, the Dutch government appeals to the municipalities. In the Dutch 'Public Health Law' (Wet Publieke Gezondheid) it is stated that municipalities are responsible for 'the creation, continuity and cohesion of public health'. Based on this law, municipalities are required to form a public health note every four years in which they respond to national health policy and explain local implementation (Loketgezondleven, n.d.-b). The benefits of a shift from national to local policy specifically apply to policy attacking SES-related health inequalities (Loketgezondleven,n.d.-b).

1.3 Research setting

This thesis connects to a larger research project that is currently reviewing initiatives that use an integrated approach in a local setting. The research project *'Care-PA initiatives in the neighbourhood: research on participation, action elements, impact and funding models'* studies the use of an integrated approach to stimulate vulnerable individuals, such as low SES individuals, to participate in PA programs. Care-PA initiatives are an example of combined lifestyle interventions in which multiple sectors (e.g. sports programs, municipalities, health insurers) collaborate to connect primary care and PA at neighbourhood level. In the research project, local care-PA initiatives in deprived neighbourhoods in two Dutch municipalities, Veenendaal and Arnhem are evaluated. The aim is to gain insight in how local care-PA initiatives can best be implemented, facilitated and evaluated.
In this study, the setting of these initiatives is mapped and evaluated. Besides an evaluation of the health outcomes for the participants of such initiatives, it is important to understand what available resources are necessary for the initiatives to become and stay successful. Mapping the resources that enabled an intervention to succeed is needed to fully understand the performance of an intervention (Meyer, Davis & Mays, 2012) and is needed to achieve durable health changes (LaFond, Brown & Macintyre, 2002). Also, an analysis for the identification of necessary resources already present, how well they are developed, and how well they link together as a system is required for any attempt to improve these resources (Aluttis et al., 2014). Besides that, the attraction of funding and the further development of the resources necessary can be enhanced if the necessary level of these resources can be demonstrated (Bagley & Lin, 2009).
For this analysis, capacity mapping is used. Capacity, in the health promotion, can be described as the organisational, human, financial and other resources that enable action to be taken by responsible authorities to improve health and reduce inequalities (Aluttis et al., 2013-a, p. 17). In relation to the current research, health capacity thus concerns the resources needed to facilitate effective care-PA

initiatives in the neighbourhood. Mapping this health capacity can discover the existing resources and can identify areas of strength and weakness (Bagley & Lin, 2009). Several attempts were made throughout literature to develop frameworks and instruments to guide the process of mapping capacity. In 2014, a model was developed for mapping capacity within the research project 'The Care-sport connector in the Netherlands' (Tijhuis, 2014). Based on a systematic literature review and qualitative expert knowledge, different theories and mapping models were merged into a model specifically for mapping health capacity in municipalities in the Netherlands. Since this recent model is based on a lot of capacity mapping literature and designed for a setting comparable to the setting of this thesis, it is expected to be of use for mapping health capacity in Veenendaal and Arnhem. The model and its applicability will be discussed further in the following chapters.

1.4 Study aim and research question

Capacity mapping is an important step in the evaluation of interventions and initiatives, connects to the vision described in Dutch health policy and can be an asset in countering socioeconomic health inequalities. In support of the research project *'Care-Physical Activity initiatives in the neighbourhood: research on participation, action elements, impact and funding models'* this thesis aims to map capacity in Veenendaal and Arnhem. Therefore, the main research question that is addressed in this study is:

"What health capacity is present in Veenendaal and Arnhem for implementing care-PA initiatives?"

Capacity mapping in the context of the care-PA initiatives in Veenendaal and Arnhem knows several challenges. It is considered impossible to use one single capacity mapping protocol as capacity has different meaning in different contexts (Mittelmark, 2007). Also, the usability of the available instruments and frameworks for mapping capacity is dependent on their setting (Aluttis et al., 2014) and the model of Tijhuis (2014) is not yet prepared for use in practice. The existing frameworks for capacity mapping should be reviewed and adapted to the setting of this thesis.
Thus, to answer this research question, two preliminary steps are needed to be taken. Subsequently, the following methodological research objectives are formulated:

1. *Explore the current local setting for care-PA initiatives in Veenendaal and Arnhem.*
2. *Operationalise the model of Tijhuis (2014) to this local setting, based on the exploration and on capacity mapping literature.*

2. Theoretical framework

Capacity is a concept that can be interpreted in many ways and no consensus exists about what exactly capacity means (Bagley & Lin, 2009). In this chapter the concept is further examined to set a definition within this thesis. Building capacity is discussed as it is the context in which capacity is mentioned and used often. Regarding mapping capacity, the local public health capacity mapping tool of Tijhuis (2014) is discussed as well as the instruments used to establish the tool.

2.1 Capacity

To be able to map health capacity, first a definition for health capacity needs to be set. Capacity is a concept that is widely used and knows many different definitions. An early and basic definition is the one from Goodman et al. (1998), who define capacity as *"The ability to carry out stated objectives"*.
Several authors attempted to further define capacity and make a distinction in different categorisations of capacity. Imbeau, Chenard and Dudas (2002) distinguish three different elements of capacity. Financial capacity, the availability of financial resources, organisational capacity, the influence of the organisational context on relevant actors, and epistemic capacity, the competencies and knowledge acquired through training or experience. White (2003) differentiates three different elements of capacity regarding insurance and the American government. First off technical capacity, which concerns effectiveness of interventions, policies and related financing. Secondly, government institutional capacity, which discusses whether a government has the necessary powers and resources and whether its instruments are adequate to their task. Lastly, political capacity, which includes the political abilities and possibilities to steer or influence policy towards the desired outcome. Milén (2001) discusses several dimensions of capacity. For instances its dynamic aspect, as it is an ongoing process and never complete. Also, the link with performance is made, because poor performance of an individual, team, organisation or system in relation to the objectives can be linked to various capacity gaps. Lastly, capacity contributes to sustainability, because it is the ability of individuals, organisations or societies to implement development objectives on a sustainable basis (Milén, 2001). Sustainability as an aspect of capacity is supported in literature (Hawe et al., 2000; Imbeau, Chenard & Dudas, 2002; Aluttis et al., 2013-a).

Capacity thus can be seen as a dynamic concept that depends on the context it is used in, rather than a set concept (Bagley & Lin, 2009). Although different categorisations are used some core aspects can be found throughout literature. Capacity concerns resources and abilities that are needed, for instance on a financial level, an organisational or institutional level and the assessment of different actors involved. Also, capacity links with performance and has a focus on sustainability of available resources. The concept of capacity is often used in the context of capacity building. The aim of capacity building is to develop skills, organisational structures, resources and commitment to health improvement in health and other sectors to improve health (Aluttis et al., 2014). One of the reasons that mapping the capacity that already exists is important, is because it is a crucial step preceding building capacity and improving the system (Aluttis et al., 2014; LaFond, Brown & Macintyre, 2002).

2.2 Capacity in health promotion

Specifically aimed at health care and public health, Lafond, Brown & Macintyre (2002) see capacity as the ability to achieve stated public health objectives at the national, regional and global levels with

respect to both ongoing and emerging health problems. Similar to Goodman et al. (1998) the ability to achieve goals is named, but specified is what these goals can or should be in public health. Aluttis et al. (2013) researched capacity regarding mapping public health capacity on a European level. They define health capacity as: *"The organisational, human, financial, and other resources, which enable action to be taken by responsible authorities to improve health and reduce health inequalities"* (Aluttis et al., 2013-a, p. 17).

In line with the early definition by Goodman (1998), these definitions demonstrate two main aspects of capacity. Firstly, that capacity concerns all possible resources that are needed. Capacity thus aims to grasp the bigger picture and assess the complete setting in which interventions are implemented. Not only working components of specific interventions are reviewed, but the wider setting of the programs. Secondly, it is stressed that capacity is some sort of threshold or 'minimal required' level of resources to enable the needed action or the desired goals.
In the current context of implementation of Care-PA initiatives in Veenendaal and Arnhem, it can be stated that health capacity, is the availability of all the resources that are needed to realise the sustainable success of Care-PA initiatives and through that improve health in vulnerable groups, such as low SES groups.

2.3 Capacity mapping instruments

For mapping health capacity, several models, frameworks and instruments are available. Literature suggests that for the usage of a health capacity mapping instrument, the context in which the instrument is used should always be taken into account (Ebbesen et al., 2004). The model of Tijhuis (2014) is reviewed because it seems to be matching the current setting best as it is focussed on the Netherlands and obtains a more regional view. The goal is to determine its applicability to the current setting. The three studies it was based on are discussed as well. This is done to better understand the nature of the model by Tijhuis (2014) and to obtain a broader view of the possibilities for adapting the model. Focus in the review thus will be on the methods of mapping health capacity and the instrument that was used in the study that is reviewed. The used instruments are ordered based on the scope of the research: the 'Assessment tool for public health capacity in the EU' by Aluttis et al. (2013), the 'National Health Promotion Capacity Wheel' by Catford (2005) and the 'Rapid assessment tool for local public health system capacity in Australia' by Bagley & Lin (2009). Focus in this chapter is on the methods used for mapping capacity and the used dimensions and their subdivision.

2.3.1 Assessment tool for public health capacity

Aluttis et al. (2013-a) executed a large research on capacity for public health in EU member states. The aim of the study was to both provide an overview of the health capacity present in the EU as well as to identify areas of action which can be taken at a national and EU level to strengthen health capacity. In the context of public health, capacity was formulated as: *"The organisational, human, financial, and other resources, which enable action to be taken by responsible authorities to improve health and reduce health inequalities"* (Aluttis et al., 2013-a, p. 17).
In the report of Aluttis et al. (2013-a) an extensive international research was conducted. The methods included a literature research, a quantitative and qualitative assessment at country level by national public health experts, case studies, policy dialogues and interviews with national stakeholders. This way, a conceptual model for public health capacity was developed and the following domains were distinguished: (1) Leadership and Governance: the ability and willingness to develop and implement

effective policies and the existence of qualities in leaderships and strategic thinking; (2) Organisational Structures: the infrastructural ability of the system to effectively, efficiently and sustainably exercise its functions; (3) Workforce: the availability and allocation of qualified and skilled human resources; (4) Financial Resources: the generation and allocation of financial resources needed; (5) Partnerships the establishment of sustainable and effective collaboration; and (6) Knowledge Development: the improvement of the knowledge base that supports policymaking, fosters new research development and establishes partnerships.

Based on the conceptual model, Aluttis et al. (2014) later developed a framework in which the previous paper was combined with a literature study on existing health capacity frameworks. A framework was built with these key domains, this model is shown in Figure 1.

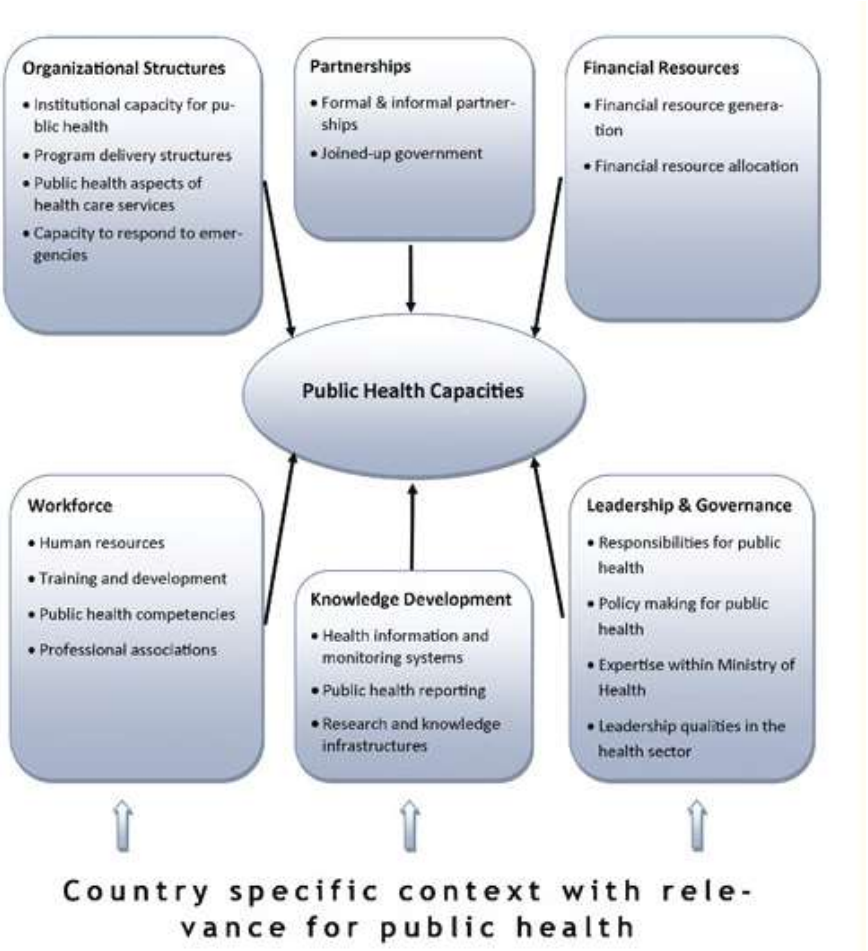


Figure 1 -Country-level framework for public health capacities (Aluttis et al., 2014)

This framework was converted into an evaluation instrument as well (Aluttis et al., 2013-b). In the operationalisation the seven dimensions are divided into 21 different components. These were divided into 128 indicators that can be transferred into questions for a questionnaire.

2.3.2 National Health Promotion Capacity Wheel

In the paper 'The Bangkok Conference: steering countries to build national capacity for health promotion', Catford (2005) discusses the 6th WHO global conference. In preparation of the conference, the WHO had initiated a mapping exercise of national health promotion capacity. The purpose was to provide a tool that could help national policy makers to build capacity for effective health promotion (Catford, 2005). Based on questionnaires spread within the WHO's network of Regional Health Promotion Advisers, the health promotion capacity 'wheel' was designed. It covers eight broad domains in which capacity can be measured on a national level. *National policies* are the national policies and plans for health promotion priorities. *National leadership* concerns the core of expertise and leadership within the national Ministry of health for health promotion development. *Joined up government* are the coordination mechanisms across national government for policy development and implementation. *Program delivery* assesses the delivery structures and mechanisms for health promotion. *National partnerships* are the relevant partnerships, such as NGOs, civil society, private sector and government. *Professional development* is the availability of advanced education and training programmes and the presence of a professional association for health promotion practitioners, policy makers and researchers. *Performance monitoring* discusses the research and evaluation and information systems to track and report on health indicators. Lastly, *sustainable financing* concerns the availability of a transparent and sustainable source of public financing.

The wheel and the different domains are displayed in Figure 2. It is deemed important for a policy tool for national capacity that it is straightforward in presentation and communication. Addition of more domains or the subdivision of one of the domains jeopardises the comprehensibility and usability of the framework (Catford, 2005).

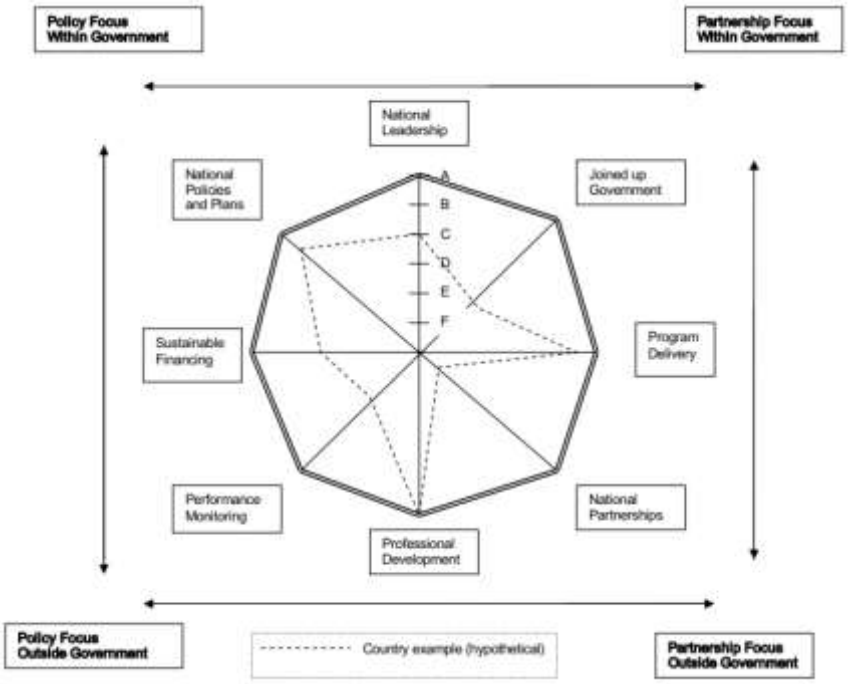


Figure 2 - National Health Promotion Capacity Wheel (Catford, 2005)

2.3.3 Rapid assessment tool

To better understand the functioning of Australia's public health activities and to operate effectively in the Australian health system, Bagley & Lin (2009) developed a capacity mapping instrument. Although specifically designed for use in the Australian context, many aspects of capacity were captured in the tool that could also be applicable in other capacity mapping research. Interviews with senior managers of the two biggest regions of Australia were conducted to identify critical components of infrastructure and capacity required at the local level. Workshops with public health experts explored this data further. Based on the major themes derived from the in-depth interviews and the supporting data from the workshops, a tool was developed. The tool was designed to be used by groups of organizations to asses local public health capacity.

The tool covers four categories: The policy environment; organizational resources; organizational programs and Organizational environment. The explanation of these categories is covered in Figure 3 with the use of subcategories. These subcategories were further divided into a range of items that can be assessed on a Likert-type response format.

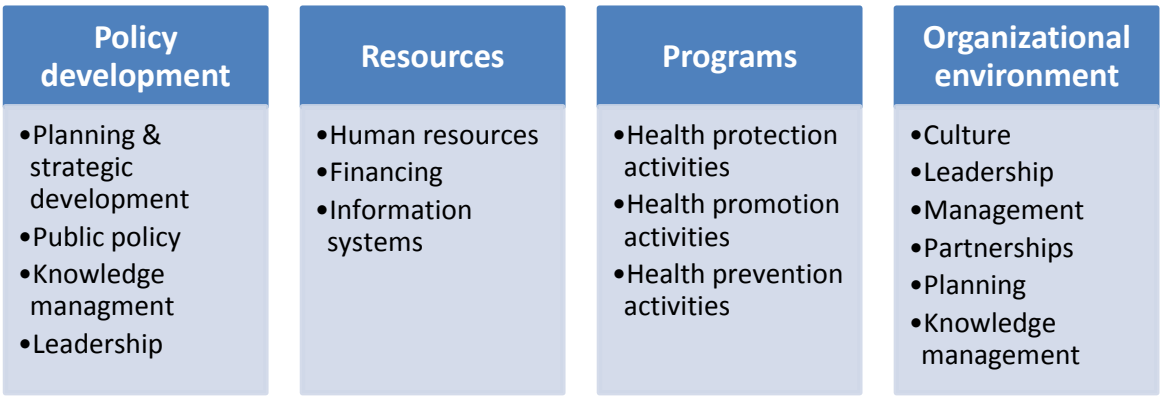


Figure 3 - Rapid Capacity Assessment Tool (Bagley & Lin, 2009)

2.3.4 Local Public Health Capacity Mapping Model

In 2014 a model was developed for mapping public health capacity in the Netherlands. This mapping model was developed within the research project 'The Care-sport connector in the Netherlands' (Tijhuis, 2014). Based on a systematic review of literature on capacity mapping and qualitative expert knowledge different theories and mapping models and frameworks were merged into a public health capacity mapping model to map municipal public health capacity. This model is designed within the context of the Dutch health care system and focussed on identifying municipal capacity for public health in general, rather than in one municipality specific.

The mapping model is displayed in Figure 4 and consists of six different dimensions of capacity. *Policy features* discusses the views and goals within municipal policy and whether or not an integrated approach is adopted in the municipality. This dimension should also assess the mission and vision of the municipality and thus is aimed at the policy view of the municipality as a whole. *Organisation features* maps the structure and culture of organisations and assesses to what extent municipal health policy is embedded in organisations. *Resources* is split up in financial and human resources. Financial resources consists of the different budgets available within the municipality, human resources consists of the knowledge and motivation that is available and the possibility for education. *Programs* looks at other activities regarding health promotion and disease prevention such as already running

interventions. *Partnerships* should map existing partnerships, to what extend they exist and what power balances exist between the different parties. Also other collaborations that can be relevant should be assessed. This all should be placed in the *Municipal context*, which considers general features (e.g. number of inhabitants, political/religious traditions or spatial size) of the municipality where the mapping takes place as this can influence all other dimensions.

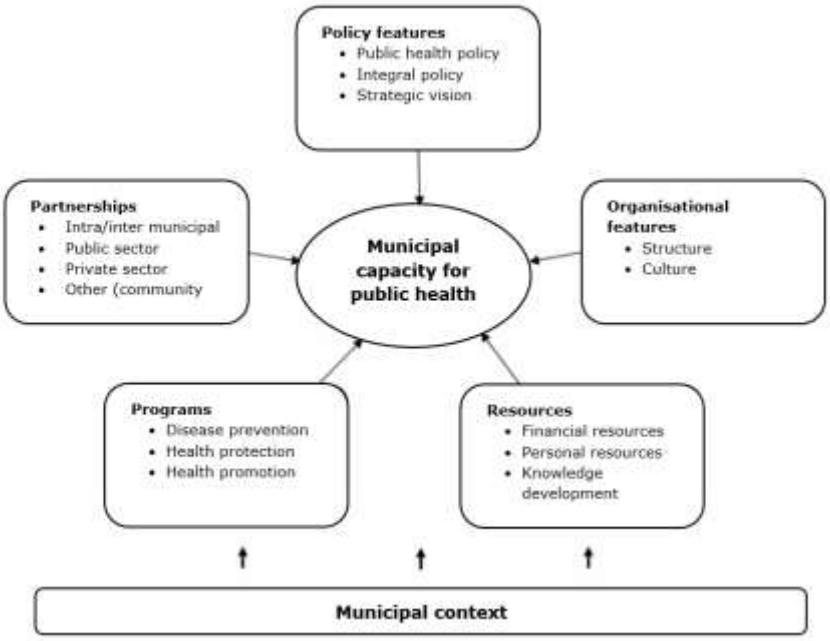


Figure 4 – Local Public Health Capacity Mapping model (Tijhuis, 2014)

2.4 Synthesis

Capacity is difficult to define because it is an abstract term that is used in many ways and knows different categorisations and dimensions. Its exact meaning differs per context and goals as it relates to what is necessary in that specific setting. In this context it means the availability of all the resources that are needed to realise the sustainable success of Care-PA initiatives and through that improve health in vulnerable groups, such as low SES groups.

Mapping health capacity concerns the challenge of identifying untapped or unrecognised resources. Since it is relevant as a base for the improvement of resources it is often used in the context of capacity building. Several mapping frameworks exist that aim to guide researchers in the process of mapping healthcapacity, making use of different categorisations or dimensions of capacity. Although the tools differ in categorisations and in context in which they are used, overlap is visible in the use of core aspects of capacity: finance, collaboration, sustainability and an organisational or institutional component.

The capacity mapping model by Tijhuis (2014) seems to fit best for the current setting as it considers the role of public health in a municipal context. As explained in chapter 1.3 some challenges regarding mapping exist. Therefore it is desired to adapt the model to the local setting and operationalise it to create a tool that can be used to map health capacity in Veenendaal and Arnhem.

3. Methods

The aim of this thesis was to map health capacity in Veenendaal and Arnhem. To be able to do so two preliminary steps were taken. First, the current local setting was assessed with the use of two interviews with local representatives. The second step was to adapt and operationalise the model of Tijhuis (2014) and create a tool for mapping health capacity in Veenendaal and Arnhem. After these preparations a workshop was designed to put the adapted tool into practice and to answer the main research question.

3.1 Research objective 1: Assessment of the local setting

The first research objective was to assess the local setting of care-PA initiatives in Veenendaal and Arnhem, to be able to adapt the too to this setting afterwards. For this purpose, two interviews were conducted, one in Veenendaal and one in Arnhem. The goal of the interviews was to gain information on the local setting and test the applicability of the health capacity mapping model by Tijhuis (2014) in this setting. Also, the interviews were used to see whether the existing explanation of the used concepts were relatable and understandable for local health experts. Interviews were considered a proper method as interviews can be used to gain better understanding of a particular setting through key informants (Skovdal & Cornish, 2015) and an appropriate method for gaining insight in explorative research (Brinkmann, 2014).

For these interviews representatives of the municipalities' umbrella-organisations for sport, 'Sportbedrijf Arnhem' and 'Sportservice Veenendaal', were approached. Representatives of these organisations were expected to have a broad overview of the local setting, ranging from the individual level to municipal wide level. This enabled them to reflect on all the dimensions of capacity used in the model. The interviews took place at the office of the representatives and lasted 45 minutes each. The interviews were recorded and transcribed. Themes were derived and this data was used to optimise the applicability of the capacity mapping model to the local setting. Remarks regarding the availability of certain resources rather than the importance of resources in the municipality were excluded. This was considered capacity mapping data and was left out of the interview results as mapping capacity was not the purpose of the interviews.

The interviews consisted of three parts. First, a general introduction on the subject of health capacity and mapping capacity was given. Second, the health capacity mapping model by Tijhuis (2014) was discussed in two ways. The model was shown empty, without all the different operationalisations in it and with only the titles of the six dimensions visible. This was done to avoid the possibility of narrowing the view of the interviewees and stimulate own interpretations and associations with capacity and the dimensions. Then, the model was shown as a whole to give the interviewees the opportunity to reflect on the current interpretation of Tijhuis (2014) to find out what they thought was or was not relevant for the local setting. The difference between the empty and complete model is demonstrated in Figure 5. Finally, questions were asked about possible methods to map capacity and relevant stakeholders that should be included in the capacity mapping process. The interviewees knowledge on the local setting was expected to be of use regarding those subjects as well. The interview guide can be found in appendix 1.

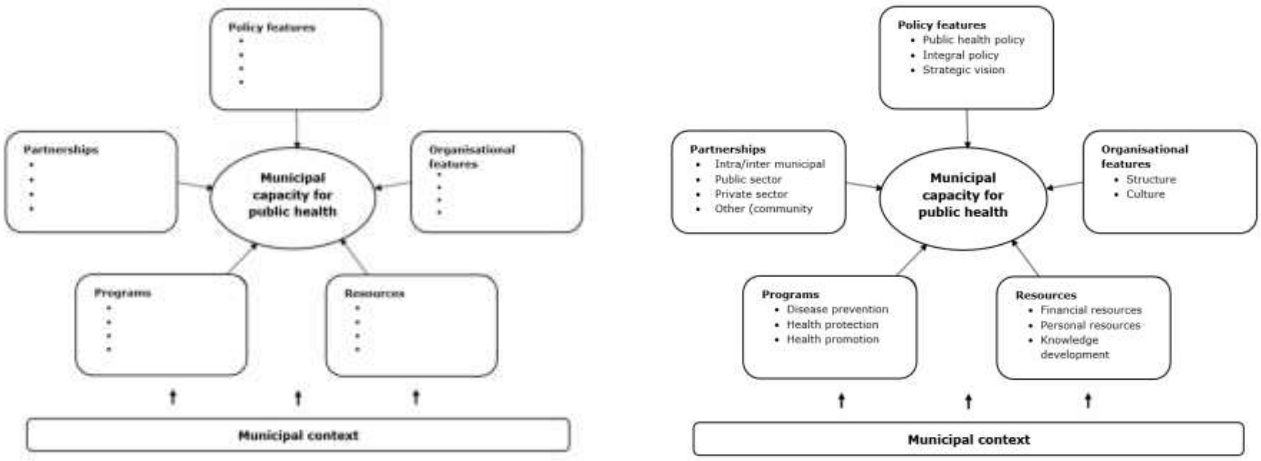


Figure 5 - Mapping model Tijhuis (2014) empty (left) and complete (right)

3.2 Research objective 2: Operationalisation capacity mapping tool

The second research objective was to adapt operationalise the capacity mapping model by Tijhuis (2014), making use of the local information obtained in the interviews. This operationalisation consisted of two steps that were done simultaneously. On the one hand, the content of the model needed to be adapted to the local setting. On the other hand the model needed to be changed into a tool that could be used to map health capacity in Arnhem and Veenendaal. The complete local health capacity mapping tool, including the operationalisations, is included in Appendix 2.

Regarding the original model and it's six dimensions of capacity, the interviewees expressed most concern regarding the role of the participants. According to the interviewees the target group definitely should be included in the model. Several questions were proposed that should be asked while mapping capacity related to the target group, such as the clarity of who the target group include and to what extent they are present near the interventions and initiatives. Next to that the ways how the target group is reached, whether they are found and whether they are connected to fitting initiatives could play a big role according to the interviewees.

The interviewees shared the opinion that in the original mapping model the 'Program' dimension was not extensive enough. They thought this topic deserved more attention as the total offer of interventions and initiatives play a crucial role in the success of health promotion on the local level. This is supported by Bagley & Lin (2009), who adapted addressing and deploying programs in their capacity mapping instrument.

The durability of interventions, how long the programs will be able to continue and how long effects will last was of high concern for the interviewees. Literature also considers sustainability of the programs and effects a relevant aspect of capacity (Catford, 2005; Bagley & Lin, 2009; Aluttis et al., 2013-a) These aspects could be placed under 'programs' in the tool of Tijhuis (2014). It was not directly clear to the interviewees that this cluster also included small scale initiatives such as walking groups. To emphasise this, the cluster was renamed 'interventions and initiatives'

The component 'Organisational' dimension was considered difficult to understand and less applicable to the local setting. In the interviews organisation was also connected to the organisation of policy. In the model of Tijhuis (2014), some of the aspects of the 'Organisational dimension' were connected to policy as well, such as the municipal task division regarding public health. Therefore it was decided to

remove the 'Organisational' dimension in the new tool as a separate cluster and incorporate it in the explanation of the 'Policy' cluster.

Also, based on the response of the interviewees of the complete model, it was desired to reduce the number of clusters. In both interviews two of the dimensions were not discussed as its content was already mentioned in other dimensions. Besides this, general concerns regarding time existed as the time available for the mapping activity was limited to 45 minutes. Literature supports the desire to reduce the number of questions in a focus group to four or five (Skovdal & Cornish, 2015). Because the interviewees did not have many remarks regarding 'Municipal context', it was decided to combine this cluster with the 'Policy' cluster.

For the operationalisation of the tool it was considered useful to enable the participants in the mapping activity to share capacity that they felt was not part of any of the clusters provided. For this purpose, 'Other' was added to the tool. All these mentioned changes resulted in the adapted and operationalised local health capacity mapping tool displayed in Figure 6, consisting of 5 clusters: Initiatives and intervention; Cooperation & partnerships; Financial and personal resources; Policy and social context and Other.

Figure 6 - Adapted Local Health Capacity Mapping Tool

3.3 Workshops

The last step was to map health capacity in Veenendaal and Arnhem with use of the adjusted capacity mapping tool, for which a mapping activity was needed. For retrieving a lot of information at once and include a big group of stakeholders at once in one location, a focus group is considered a fitting method (Skovdal & Cornish, 2015). To facilitate the mapping process in a focus group setting and include all stakeholders present, the interviewees suggested the use of sticky notes. Literature also suggested this method to be an effective tool for encouraging participants to participate and initiating response (Peterson & Barron, 2007). This interactive group-based capacity mapping activity was further referred to as a workshop, based on the methodology of Bagley & Lin (2009).

The workshops took place during project meetings that were organised for all partners connected to the 'care-PA initiatives in the neighbourhood' project within the municipality and other interested

professionals. Among the attendees were representatives of local parties connected directly to the project, for instance the municipality and sports centres, and representatives and other professionals interested in this project. Before the start of the workshop the attendees were divided into groups. They were selected to spread similar occupation or expertise over all the groups. Because a high number of attendees was not directly linked to the municipality, distinction was made between 'local' and 'national' groups. This distinction was made to separate capacity that was directly related to one of the municipalities and capacity that possibly was not and could be of a more general nature or related to specific other municipalities. The workshops took place in the city halls of the municipalities as last agenda-item of the project meetings. They lasted between 30 and 45 minutes.

The workshops started with a brief introduction on health capacity mapping and the goal and the content of the workshops. Then, the local health capacity mapping tool, based on the interviews and the model of Tijhuis (2014), was presented and the 5 clusters were explained. After that the attendees were separated in their groups and the tool was discussed per cluster. The clusters were discussed in an order based on content, from the most specific to the most general cluster: 'Interventions and initiatives'; 'Personal and financial resources'; 'Collaborations and partnerships' and lastly 'Policy and social context'. For the local groups the main questions in each cluster were: 'What do you consider capacity for care-PA initiatives in this municipality that already is in place' (1) and 'What do you consider capacity for care-PA initiatives in this municipality that is not yet (fully) present'(2). Preferably participants answered both questions with at least two statements. Answers could be written down on the sticky notes and stuck on a poster version of the adapted tool. For the national groups the questions were 'What do you consider capacity for care-PA initiatives in your municipality or in general' (1) and 'What do you consider capacity for care-PA initiatives in your municipality or in general that is not yet (fully) present'(2). After answering these two questions for the four main clusters, the attendees were asked for additions or to think of capacity that would not fit within one of the clusters, which could be shared in the 'Others' section.

3.4 Data analysis

The data derived from the workshops was ordered into three groups: applicable to Arnhem, applicable to Veenendaal and more nationally oriented. For each group the data was transcribed and sorted based on the clusters of the adapted tool that was used. The transcribed statements were coded. Coding clarified main themes within clusters, such as funding examples or collaboration partners, and overarching themes that were observed in multiple clusters, such as sustainability and motivation. The sound recordings were used to further interpret the findings and to elaborate on the results with quotes.

The emerging themes were summarised and described, following the guidelines of thematic analysis (Skovdal & Cornish, 2015). Themes that were discussed in all three groups were put together and separated from themes that were only discussed in one of the municipalities.

Some of the data was rearranged or used in multiple clusters. This was done because some statements fitted better with codes that were related to another cluster. For instance, accessibility of interventions within the current offer of initiatives was named under 'resources', but it was also considered to fit within the first cluster, 'interventions and initiatives'.

4. Results

In this chapter the results of the two workshops in Veenendaal and Arnhem are presented per cluster of the adapted health capacity mapping tool. First, the topics mentioned by the attendees of the workshops that found overlap in both municipalities and in the national view are discussed. Second, themes are discussed that were only explicitly mentioned in one specific municipality.

4.1 Interventions and initiatives

In both municipalities examples were named of interventions and initiatives that were considered effective or at least beneficial. In Table 1 the examples named in the workshops are displayed. A crucial positive aspect that was named in both municipalities was the fact that the initiatives are small scaled and often organised by inhabitants themselves. In both municipalities the workshop attendees thought this is capacity because these small scaled local initiatives increase the reach when it comes to vulnerable people. For the larger and more professional sports initiatives, workshop attendees thought it is possible that vulnerable people experience barriers for joining initiatives. Small scaled initiatives are perceived as easier to join according to the workshop attendees.

In both municipalities the accessibility and the reach of the current offer of initiatives and interventions was addressed in the workshop. The attendees considered it a lack in capacity that overview of the possibilities is difficult to realise and thus not fully present. This means the possibility exists that inhabitants that match the target group are not yet reached.

The role that primary care personnel, for instance General Practitioners, has in recommending PA initiatives to individuals of the target group is considered crucial for assisting inhabitants to find the (right) interventions. Both in Veenendaal and in Arnhem the workshop attendees deemed this capacity and present right now.

Veenendaal

In the workshops in Veenendaal the offer of sports possibilities was mentioned as large. According to the workshop attendees, many initiatives arise, often because of creativity and motivation from local inhabitants of the neighbourhood. The workshop attendees considered a large offer of initiatives and interventions to be capacity available. However, because many very small initiatives arise it sometimes is difficult to support them all. It was said that ideally you would combine some of them if similar but this is not always what the inhabitants want, and risking the loss of motivation would be a pity.

> *"It Is quite simple: once we had two similar small groups that played a similar ball game. For our organisation it seemed logical to put those groups together, but this was definitely no success! "*

Arnhem

In Arnhem the most frequently mentioned form of capacity in the workshops was the municipality's focus on the neighbourhood level when it comes to interventions, as mentioned above. The workshop attendees show concern when it comes to reaching the target group, the ability to connect the target group to the current offer in sports initiatives is considered capacity and not yet fully present. Different subgroups are named that are still hard to reach with the current interventions.

"We do not focus enough on low hanging fruit: people that consider physical activity but have stopped for temporary reasons, such as pregnancy/having a baby. We miss them in our approach because we are mainly focused on low SES neighbourhoods.
Yes, and unhealthy and vulnerable people in high SES neighbourhoods. Or young girls, between 14-18, those who stop with their sports association and do not look for substitute physical activity. "

National

From a more national point of view the workshop attendees consider the variety of possible interventions in the current offer as an important contributor to the success of care-PA initiatives for vulnerable people. Next to regular sports activities there are considered to be sufficient options present for PA activities that can be connected to health care.

As well as in the local groups, also on a national level the question arose whether the target groups are always reached. Lastly , the offer of PA initiatives and sports activities is considered extensive but doubt was expressed in the effectivity and quality of the current offer. It is deemed necessary to use initiatives that are proven to be able to improve health. There already is attention for the effectivity according to the attendees, but it is still considered difficult to prove effect.

Table 1 - Examples of interventions and initiatives.

Veenendaal	**Arnhem**		**National**
Valpreventie (teaching elderly how to handle when falling)	Fitness for females with immigrant background	JOGG (Children towards healthy weight)	Nationale Diabetes Challenge (NDC)
	Interventions aimed at senior citizens	Omar's Gym (individual initiative by famous boxer)	Sociaal Vitaal (focus on low SES elderly)
Small scale initiatives within the neighbourhood such as dancing or yoga classes.	'Beweegmaatje' (PA assistant for elderly)	Uniek Sporten (sports for disabled people)	SLIMMER (Diabetes prevention)
	GO! (health coach for kids)	PA initiatives facilitated by the soccer club Vitesse	X-fittt 2.0

4.2 Financial and personal resources

For the financial resources needed for care-PA initiatives many examples of budgets and possibilities for funding were named in the workshops. An overview of the possibilities named in both municipalities is provided in Table 2.The workshop attendees in both municipalities discussed the role of individual drive and individual and motivation and in both municipalities the role of the umbrella organisations is emphasised was emphasised. However, different explanations and different links with capacity were made in each municipality.

Veenendaal

In Veenendaal, according to the workshop attendees the knowledge and skills necessary for the success of care-PA initiatives for vulnerable groups are sufficiently present. Multiple attendees named available knowledge or educational options as capacity available. The current professionals involved

are considered qualified and motivated. A necessity is that the personnel has knowledge of the local setting which is often the case according to the attendees.
The role of the 'Sportservice', the umbrella organisation for sports in Veenendaal, is central in this cluster. Sportservice is considered a crucial player in the field of health promotion in Veenendaal.
Individual initiators with personal drive were considered crucial as the workshop attendees experience that successful interventions or initiatives often are dependent of individual drive and motivation from the initiators. The number of individual initiators not yet considered sufficient to guarantee sustainable success. Next to that several smaller concerns were named in the workshops. Attendees shared the doubt regarding whether the sports associations that are present in Veenendaal are being involved enough in the current plans and programs. Also, concerns exist regarding whether there are sufficient facilities for care-PA initiatives in Veenendaal.
Although the availability of sufficient funding seemed facilitated since many funds are present, difficulties regarding financing are still experienced by the workshop attendees. As well as it was named difficult to provide overview of the present initiatives on a local level, it is considered difficult to provide overview of the financial possibilities, as there are many different ways of funding small scaled projects. The attendees expressed the necessity to have personnel that can find its way in the different funding opportunities and match the right budget to the right project or individual. Next to the difficulty of finding the right budgets, options for funding also sometimes change or are provided for a limited period. Regarding to the workshop attendees this leads to a lack of continuity in funding.

> *"I even think it is possible that sufficient funding already is present in Veenendaal. The struggle is that you have to know what budget or what funding is relevant for a specific case and what institutions need to be approached to reach it."*

Arnhem
In Arnhem financial resources were named as most important for enabling success of care-PA initiatives by the workshop attendees. Specific examples of funding and budgets were named regarding different elements of care-PA initiatives, such as budget for prevention and the financing of the care sport connectors. Next to that, the neighbourhood specific budgets in the municipality of Arnhem that the teams living environment get are important according to the attendees.
Considering personal resources Arnhem has a strong sports infrastructure where the municipality and 'Sportbedrijf' together facilitate and finance the lifestyle coach. This is, as explained under 'interventions/initiatives' important capacity present. The embeddedness of the personnel (social workers, sports coaches, team living environment, care sport connector) within the neighbourhoods is also considered capacity, as they are close to the target group.

> *"We (the personnel stationed in the neighbourhoods) already visits many places. We try to stay well informed of the existing opportunities for care-PA initiatives. We try to obtain a view of all developments, as complete as possible. "*

In Arnhem, within the named care-PA initiatives, the attendees thought examples were available of professionals with high personal drive and the will and courage to start working with prevention. The availability of this kind of people in multiple relevant fields, for instance officials within the municipality or managers of sports centres, is considered crucial in the success of initiatives. The workshop

attendees already consider this a strength of Arnhem, but shared that more of these people are needed for more and more sustainable success.

National

From a national point of view workshop attendees shared the opinion that the right people are in place for care-PA initiatives to be successful. The role of lifestyle coaches is important but not necessarily crucial as they are not available in every municipality. Crucial elements named by the attendees were the accessibility of care-PA initiatives and the awareness of the availability for the target group. Whether this is sufficiently present in every municipality was not clear to the attendees.

Continuity and sustainability of the initiatives play a crucial role according to the workshop attendees. Self-organisation, a shift in organisation from the initiators towards organisation by local inhabitants, was considered important to guaranty sustainable interventions. This is not yet reached everywhere, meaning that the end of funding resources the end of an initiative and therefore the end of health improvement.

Overall it is considered crucial that everybody involved understands the importance and relevance of investing in prevention and sports. Capacity of the success of care-PA initiatives is that needed parties such as health care insurers dare to invest in prevention.

Table 2 - Financial resources for care-PA initiatives

Veenendaal & Arnhem		**National**
Sport funding for children (Veenendaal)	Budget teams living environment	X-fittt 2.0
Dullertsstichting	Municipality and Sportbedrijf financing lifestyle coaches	Budget care sport connector
Budgets available for the transition towards municipal increased responsibility for public health.	Funding (national and local)	SLIMMER (achterhoek)
GIDS funding	Nationale Diabetes Challenge (facilitates free sports activities)	GIDS funding
Gelrepas (discount on sports activities for people with low budget)	Budget Care sport connector	Municipal budgets
Sports budgets		Oranjefonds (fund aimed at social inclusion and participation)
Insurance companies		Funding for regional multidisciplinary collaboration

4.3 Collaborations and partnerships

Collaborations and partnerships were considered an important topic regarding care-PA initiatives in both municipalities. The umbrella organisations for sport, 'Sportservice' in Veenendaal and 'Sportbedrijf' in Arnhem play a central role in organising and facilitating these collaborations according to the workshop attendees.

One of the main mutual concerns in the workshops in both municipalities was the distance between non-profit organisations such as the municipalities, GP's or NGO's and for-profit parties such as sports centres. Doubt or distrust about the motivations for collaborations seem to be a barrier in starting collaborations. Besides that, it was noted that professionals want to remain independent and prevent accusations of advertising for for-profit organisations such as sports centres. According to the workshop attendees the connection between these groups of organisations is capacity that is lacking at the moment.

> *"I even suspect that a lot of double work is done due to a lack of collaboration. Parties should start any collaboration with transparency on goals and views. What you often see now is that this is not discussed but does influence the collaboration in the background."*

Veenendaal

In the Veenendaal workshop it was shared that relevant collaboration and partnerships are starting to arise. Different attendees named the growing willingness to collaborate when it comes to prevention as capacity that is present. The GIDS (healthy city program) meetings bring together a large group of stakeholders and are considered to play a crucial role in stimulating working together. Sportservice is, as mentioned earlier, considered to be a big player in the municipality because of the connection with the lifestyle coaches, health care insurers and other stakeholders. According to the workshop attendees, Sportservice is easy approachable and able to adjust their approach to optimise contact with the different parties.

The workshop attendees in Veenendaal explained that it is considered to be just the start when it comes to working together. The collaborations are in an early stage and do not yet always lead to concrete effects. Besides that, the attendees indicated that not all relevant parties already are willing or able to invest sufficient time and energy into the partnerships, as prevention and health promotion is not a hot topic within every organisation. It is considered a challenge for relevant parties to find each other in new collaborations regarding health and PA. For example, primary health care should be able to connect patients to sports facilities and the workshop attendees were unsure whether this is always the case now.

> *"People do not always stay in your memory, relevant contacts also need to be maintained. Advise to clients for me can be influenced by the initiatives and people I recently have noticed, red about or met."*

Arnhem

In the Arnhem workshop it was mentioned that many relevant collaborations and partnerships already exist. A specific example that was mentioned was that primary healthcare seems to connect with the lifestyle coaches. According to the workshop attendees, Sportbedrijf has a connecting role in care sport collaborations. Different examples were named in the workshop of concrete collaborations with Sportbedrijf, for instance with sports centres, the teams living environment and the municipality. The

workshop attendees mentioned that the quality of the collaborations can differ per neighbourhood because they are organised so locally. Realising a base quality for neighbourhood level partnerships is considered a great challenge but capacity needed for care-PA initiatives to be successful. Because of the lack of overview that is experienced, within neighbourhoods it is found difficult to connect all the different small PA initiatives to the lifestyle coaches. The ability to include all initiatives in the collaborations and therefore connect patients to them was considered capacity lacking. Lastly, different stakeholders were named that were considered not yet represented (sufficiently) in partnerships although necessary for care-PA initiatives to have success. For instance, elementary schools are not included although they could contribute to prevention, both educationally and to find participants, in children and their parents. Housing companies, because they have access to the target group and could contribute to finding participants. Next to that, some health care organisations can be difficult to reach according to the attendees. Specifically physiotherapists are considered highly relevant yet difficult to reach out to because they have no overarching organisation.

National

From a national perspective capacity regarding collaboration and partnerships was considered partly present, but also one of the most important subjects to improve. The options for partners to collaborate with are considered to be sufficiently available. Many of the possible partners that are available have comparable missions and visions, which is considered to be crucial for partnerships to contribute to the success of care-PA initiatives. It was noted though that partners often fail to find each other. According to the workshop attendees this is often related to the investment of time and money. Potential partners are not yet prepared to invest sufficient in the possibilities for cooperation. The workshop attendees think that competition is holding this back although unnecessary, because when brought together these barriers can be overcome quickly. The embeddedness of initiators in the neighbourhoods is crucial according to the attendees. This brings the professionals close to the target group and gives them feeling with the target group. The role of primary health care, mainly GP's, is also emphasized in the national workshop, they are crucial in the success of Care-PA initiatives but, according to the workshop attendees, not all are already committed to health promotion yet.

The workshops discussed some other difficulties regarding bringing partners together. The workshop attendees thought that often the mutual interests are hard to find and sometimes hidden agendas add to that. Full investment of the parties into the collaboration regarding time and funding is considered to be lacking often. Next to that, according to the workshop attendees parties do not always find each other that easily and parties with overview are not always present.

4.4 Policy and social context

The main aspect of capacity that was discussed in the workshops when it comes to policy is the ambition of integral policy. Multiple policy fields that overlap and collaborate to create policy that covers multiple aspects of health promotion, for instance sports, health care and physical environment, is considered capacity not yet fully available. According to workshop attendees this should include the enhancement of collaboration between stakeholders from different policy fields. Integral policy was also named as the main challenge, attendees noted that when policy is written often other fields are not taken into consideration and collaboration in this process is thought to be rare.

Veenendaal

The workshop attendees considered Veenendaal to be a relatively small municipality, which was named as a positive aspect for care-PA initiatives as it can facilitate stakeholders in find each other. The municipality was also considered to be quite conservative and rigid. According to the workshop attendees it is a challenge in Veenendaal to be open to new policy, for instance the focus on health promotion rather than a curative viewpoint.
Workshop attendees shared that, according to them, in Veenendaal stakeholders have a positive attitude towards PA and participation in PA initiatives of the inhabitants is expected to be relatively high. This is considered an important aspect of the social context to stimulate parties to invest in sports initiatives. Considering policy, the attendees thought that in Veenendaal public health policy and sports policy are connected well, which is crucial for the success of care-PA initiatives.

Arnhem
In Arnhem the workshop attendees felt that the support for health promotion and care-PA initiatives already is widespread among the different stakeholders. Many resources were considered to be available in different policy fields, such as physical environment, sport and public health. The neighbourhood approach as named in the cluster 'personal and financial resources' stimulates inhabitants to join initiatives according to the workshop attendees. Regarding policy in the municipality this shift is experienced from a curative public health approach towards more health promotion thinking. This is considered a crucial transition but not yet complete. Concerns were expressed by the workshop attendees towards the embeddedness of health promotion and sports mainly in the municipalities other policy fields. A specific example that was named was the minimal role of health promotion in city planning, although the relevance of health promotion in this field is growing. A lack of capacity was experienced when it comes to obtaining a long term view in policy. Investing in health promotion, and thus in care-pa initiatives, often needs a long term vision as the benefits of investment are not always directly visible. Financially, often costs and benefits are analysed on the short term and the possible investment in prevention is not considered. An example discussed in the workshops is the social business case, which is already used occasionally:

> *"What I mean by long term view? What often happens is that initiatives like we are discussing now are approached one sided. For instance, in investing in social real estate, we mainly look at maintenance, management, write-off. We do not put much time in assessing the possible social benefits, whether a building can accommodate neighbourhood initiatives for instance. A social business case can assess these less clear possibilities of social nature to re-evaluate the current financial costs. The benefits of investing are not always direct, they can for instance pay off in a reduced care need or medicine use."*

National
The workshop attendees in the national groups considered it capacity available that positive health and health promotion get a lot of attention. Specifically transition municipalities – municipalities that already invested in the transition towards more responsibility for public health – have received sufficient funding to invest in positive health. Because of this policy view and these investments a positive environment is created for prevention and prevention initiatives grow in number. The workshop attendees think that, on a national level, different policy fields already collaborate to obtain an integral approach. This is considered to be capacity but not yet available, as this integral approach is needed for a longer time and in more policy fields on a local level for a sustainable success of care-

PA initiatives. More sustainable health promotion projects are considered necessary. According to the attendees more focus is needed on the scientific prove of effectivity within these new interventions and initiatives.

> *"You often see that municipalities or sport coaches set targets in initiatives and interventions regarding the health effects that are unrealistic in the set time. When the small steps towards sustainable health promotion are identified and recognised it is more easy to deliver successful programs. Instead of looking at health improvements in all participants for instance, reaching a high level of participants could be considered a positive effect itself. "*

5. Discussion

The purpose of this study was to answer the research question: 'What health capacity is present for care-PA initiatives in Veenendaal and Arnhem'. Two research objectives were formulated in support of the main research question. The first objective was to adapt the capacity mapping model of Tijhuis (2014) based on local knowledge. The second objective was to operationalise the model, with help of this newly obtained local information, into a fitting tool for mapping capacity workshops in Veenendaal and Arnhem.

In this chapter, first the results are discussed. Secondly, the methods used in this thesis are reflected upon and strengths and limitations regarding this thesis are discussed. Lastly, recommendations are made. Recommendations for future research regarding capacity mapping in the local setting, based on the strengths and limitations of this study and recommendations for policy implications based on the capacity available or lacking in Veenendaal and Arnhem.

5.1 Capacity available in Veenendaal and Arnhem

Based on the results of the workshops in both municipalities, health capacity is formulated. Per cluster, first the main health capacity perceived as available will be discussed. Second, health capacity perceived lacking and health capacity that was only named in one of the municipalities, perceived available or lacking, is discussed. Table 3 shows an overview of what is perceived as health capacity available and not yet available based on the results of this research.

Table 3 - Overview capacity mapped in Veenendaal (V) and Arnhem (A)

Capacity Available	**Capacity not yet (sufficiently) available**
Availability of interventions	Overview of possibilities for interventions and initiatives
Local approach	
Presence of umbrella organisations	Willingness to invest
Availability of skilled personnel	Continuity and sustainability of interventions (effectivity)
Funding possibilities	
Health promotion approach	Co-creation of PA and health promotion policy
Strong sports infrastructure (A)	Overview of funding and finance (V)
Social context that stimulates PA (V)	

Regarding the cluster 'Interventions and Initiatives', the current availability of interventions and initiatives is considered capacity available in both municipalities. Besides the variety of possible interventions in the current offer, there also are many possibilities for PA activities that could be connected to health care. Also, the current local approach of the programs is named as capacity available. The focus on the neighbourhood level also is perceived as capacity available in both municipalities. According to the workshop attendees, this focus makes it easier for the target group to join initiatives and professionals within the neighbourhoods are closer with the target group. This corresponds to research stating that strength of the local setting in connecting the target group with local professionals (Rantala, Bortz & Armada, 2014).

However, in both municipalities the workshop attendees shared concerns regarding the overview of possibilities. Because of the small scale of many initiatives it is difficult for primary care personnel and

lifestyle coaches to have a full overview. This is perceived as capacity that is unavailable, as it creates the possibility that fitting initiatives or interventions are not known to individuals in the target group. In Arnhem specifically the workshop attendees worry that this results in some subgroups of the target group that are possibly not yet reached, for instance young girls and individuals that do not live in low SES neighbourhoods.

Considering the cluster 'Financial and Personal Resources', the umbrella organisations for sports, 'Sportservice' and 'Sportbedrijf' play a big connecting and facilitating role in the local setting and their presence is considered capacity available. In the cluster 'Collaborations and Partnerships' more comments were given on their role. Other capacity in this cluster that is perceived as available in both municipalities, is qualified personnel. The availability of skilled and motivated personnel in the neighbourhoods, for instance lifestyle coaches or teams living environment was considered crucial for the success of care-PA initiatives. In both municipalities many financial possibilities were named by the workshop attendees, the availability of funding possibilities is considered capacity that already is available. This is surprising, as literature on capacity suggests that funding often is lacking (Bagley & Lin, 2009; Aluttis et al., 2013-a). Continuity or sustainability of interventions, effectivity on the long term, also is considered capacity and it is not yet fully available. Sustainability as an aspect of capacity was already confirmed by literature (Hawe et al., 2000; Imbeau, Chenard & Dudas, 2002; Aluttis et al., 2013-a). According to the workshop attendees, if programs prove effective and exist for longer time, this increases willingness to invest time and money for policy makers, financers and other stakeholders. Two key factors were named for this lack of capacity. First the fact that it is difficult to measure effect of these initiatives. Also on a national level the challenge of evidence based health policy remains a challenge (Aluttis et al., 2013-a). Expectations of direct effect and short term effect sometimes are too high according to the workshop attendees. Next to that, the success of interventions and initiatives is named to depend on individual motivation and drive.
In Veenendaal specifically, the workshop attendees mentioned a lack of capacity in connecting the financial possibilities to the right individuals or subgroups within the target group. Because there are many different ways of funding small scaled projects the workshop attendees explained it can be difficult to find a fitting solution as overview is lacking.
In Arnhem specifically the strong sports infrastructure, for instance when the municipality and 'Sportbedrijf' together facilitate and finance the lifestyle coach, was named as capacity that is available.

Discussing the cluster 'Collaborations and Partnerships', the umbrella organisations again are perceived to be capacity that is available, for their contribution in connecting parties. According to the workshop attendees, many of the stakeholders are in contact with these umbrella organisations, especially the personnel in the neighbourhoods, and stakeholders find them easy to approach. IN the workshops several general observations regarding collaborations and partnerships were made, such as the availability of the willingness to collaborate; a facilitating environment for collaboration and that the existing collaborations are not perfect but the start is there. Several collaborations were named in both municipalities that are needed for the success of Care-PA initiatives. Specifically the collaboration between non-profit organisations such as the municipalities, GP's or NGO's and for-profit parties such as sports centre was named. For-profit parties are recognised as important stakeholders for integral health policy (Lemmers et al., 2002). According to the workshop attendees, barriers exist in this

collaboration and thus collaboration between these types of stakeholders is perceived as capacity not yet available.
In the Veenendaal workshop the GIDS (health in the city) workgroups were named as an opportunity for stakeholders to meet. Regular exposure to other relevant stakeholders is considered capacity but not yet fully available. Examples were shared in the workshops of 'forgetting' about each other and not being able to 'find' each other enough. This was backed up by the national groups where it was shared that it is crucial to share a mission and vision regarding care-PA initiatives. In literature, structures that facilitate exposure, such as the existence different types of committees, councils, networks and programs is considered needed to facilitate inter-sectoral collaboration for health (Rantala, Boltz &Armada, 2014).
Within the national group workshops the attendees explained why stakeholders find it difficult to come closer to each other. Not all necessary parties manage to prioritise health promotion sufficiently in their agendas, which leads to not all stakeholders being able to put enough effort into the collaborations. Motivation to contribute to health promotion is considered capacity and not yet available, as these barriers were also indirectly mentioned in the other workshops.

Regarding the cluster 'Policy and the social context', in both municipalities support for PA and health promotion was experienced. A shift from a curative focus towards a focus on prevention and health promotion was mentioned in all workshops. This shift in the public health view is perceived as capacity available as it is big stimulating factor for many other forms capacity according to the attendees. This is promising, because earlier the political interest was mainly focused on health care, patient safety, economic issues in the health system (Aluttis et al., 2013-a).
According to the workshop attendees several relevant stakeholders share the ambition of integral policy, some policy fields already are connected considering health promotion. As mentioned above though, it is thought to be difficult to prioritise these kind of collaborations. As elaborated upon in the national workshop groups, although it is positive that policy is combined, it is needed that policy is written together instead of the attempt to find overlap in policy from different policy fields. It is found that making policy together rather than influencing existing policy strengthens support for health in policy (Storm, van Zoest & den Broeder, 2007). The co-creation of policy regarding PA and health promotion is capacity not yet available. According to literature, specific availability of funding for stimulating joint activities can foster these collaborations (Rantala, Bortz & Armada, 2014).
In Veenendaal specifically, the municipalities mind-set towards PA was considered very positive and the participation of its inhabitants in PA initiatives and interventions was considered to be high. A wider social context that stimulates PA throughout all layers (from the neighbourhood level and 'in the field' personnel up to policy level) is perceived as capacity available in Veenendaal.
In Arnhem it was named in the workshops that a lack of long term thinking is experienced which makes the opportunities for initiatives and interventions more difficult. According to the workshop attendees, investments of time and money sometimes are not made or considered because the benefits on the long term are unclear. The willingness to invest in health promotion is considered capacity, as it was supported by the national workshop groups as well. This is perceived as not yet fully available in Arnhem.

Strengths and limitations

Within this study, several strengths and limitations can be distinguished. Several aspect contributed to generating useful information on the capacity available in these municipalities and thus are considered

strengths of this thesis. First, the combination between the use of a model based on literature and the knowledge of local representatives is considered a strength. Since it was based on several other frameworks and instruments, the created health capacity mapping tool was expected to measure capacity in general. The information about the local setting made the tool fitting to the local setting and facilitated in the capacity mapping process.
The preparing interviews were considered very useful. Literature suggested that for mapping capacity an analysis of the context is needed (Ebbesen, 2004; Mittelmark, 2007). The interviewees gave insight in the local setting, provided several suggestions for adjustment of the mapping model and were of assistance in the design of the capacity mapping workshop. Some remarks that the interviewees made regarding capacity in the local setting, were also made in the workshops. This is seen as an indication that the interviewees were a good representation of important stakeholders of care-PA initiatives in Veenendaal and Arnhem.
In the workshops, the use of open questions appeared to be very useful. Asking the broad question 'What capacity is available' did not only provide insight in what capacity is available, but also in what local professionals consider capacity in general. Using questionnaires with Likert scale answer possibilities, as used in other capacity mapping studies (Bagley & Lin, 2009; Aluttis et al., 2013-a) would narrow the possibilities of the respondents to come up with new resources they thought was capacity and would possibly force them to discuss resources that they did not consider capacity at all.
A last strength is the sampling of the workshop attendees. For conducting the health capacity mapping workshops, it was decided to include the workshops in already existing project meetings that were organised for all partners connected to the 'care-PA initiatives in the neighbourhood' project and other interested professionals. This form of convenience sampling led to the inclusion of a high number of relevant professionals at once. Although useful it has to be recognised that this way of sampling could lead to the exclusion of possible relevant stakeholders. Some professionals might not have interest in the meetings and miss the workshop as well, and no extra stakeholders were approached.

During the study also several limitations were encountered, which possibly affected the validity and reliability of the results. First, capacity remains an abstract concept. The instruments that were reviewed in chapter two made use of operationalised questions in which separate aspects of capacity were measured. This reduced the difficulties in explaining the broad concept as a whole to participants. In this study it was chosen to map capacity making use of very open questions, in which the concept of capacity was used. At the start of the workshops for some attendees the concept was not completely clear because of this. This made it difficult to participate in the mapping exercise, which is considered a limitation to this study.
Connecting to this, although it was expected that the interviews were sufficient preparation, some difficulties in explaining the health capacity mapping tool and the workshop procedure were experienced in the first workshop in Veenendaal. Specifically, in the first cluster 'Interventions and Initiatives', it was unclear that crucial aspects in the current offer were asked, rather than working components from several programs. Improvements in explanation of the goal of the workshop and the tool were made for the Arnhem workshop, which could lead to slight differences in interpretation of the workshop attendees. Although it is expected to have minor influence since eventually de Veenendaal workshop attendees understood the questions asked, a pre-test of the operationalised health capacity mapping tool would have been useful to avoid this.
The workshops resulted in a high number of short statements put on sticky notes regarding capacity. Although the open questions are considered a strength of this study, difficulties existed in the

interpretation of this data as some statements of capacity could be interpreted in different ways or required further explanation to better understand them**.** The possibility to further elaborate on these statements could have strengthened this research, as it would not have left the researcher with the difficult task of interpretation. Interviews or a focus group with some of the attendees or other local representatives could provide further elaboration on the findings and increase the possibility of clear and concrete results regarding the capacity mapped. An example of this possible flaw is the role of the umbrella organisations. Although several aspects of their work were discussed in the workshops, extra explanation on their exact perceived benefits would add valuable information.

The last possible limitation considers the external validity of this study. Although this study revealed many forms of capacity applicable to the local setting, it can be doubted whether this capacity is the same in other municipalities. In the workshops many answers were provided that were specifically aimed at the municipalities, such as the perceived sports climate, the role of the umbrella organisations or the GIDS status of the municipalities. Since these factors can differ per municipality, the findings cannot directly be translated to other municipalities. However, some capacity, perceived as available or lacking, was mentioned in both municipalities as well as in the national groups. This is an indication that this capacity is more likely to be generalizable.

5.3 Recommendations

Based on the results, taking the strengths and limitations of this study in consideration, several recommendations are formulated. First, recommendations aimed at the settings in which this research took place. Since the mapping process did not only reveal capacity available in the municipalities but also discussed capacity lacking, recommendations are made regarding building capacity. Secondly, recommendations for future research on local capacity mapping and the use of the tool are made.

5.3.1 recommendations for policy implications

Some of the resources discussed in the workshops were perceived to be health capacity but not fully available right now. These resources could be the focus in efforts to build health capacity. Based on the results of this study, the following possibilities for building capacity are identified.

First of all, a desire for overview in the possibilities was discovered, this was repeatedly named as capacity lacking in the workshops in both municipalities. Both overview in the possibilities for initiatives and interventions and the possibilities to fund these programs is considered challenging to obtain. It is possible that this is specifically linked to the local setting, as it was not mentioned in the national groups and was not explicitly mentioned in the reviewed literature. For the initiatives, it was mentioned a challenge because many initiatives are very small and emerge bottom up. For the funding, the high number of possibilities and the specific conditions needed to apply for funding were considered the challenge. It is recommended to attempt creating more overview, so inhabitants can be informed of all the possibilities for PA in their neighbourhood and professionals have easier access to the possibilities when it comes to funding the programs and participation.

Besides that, although willingness to collaborate was experienced to be present in the municipalities, not all the right collaborations were in place. The embeddedness of collaboration in the municipals policy and culture is considered capacity not yet available. This was surprising, as research suggests that the mechanisms and policies to support partnerships already is fully developed in the Netherlands (Aluttis et al., 2013). Though, because this was not experienced on the local level, concrete steps to facilitate this could be taken in the following ways. First, the organisation of regular meetings in which reaching low SES groups and the combination between care and PA is discussed for all stakeholders to

increase exposure. Example of this are the GIDS work groups already existing. Second, the co-creation of policy, so called integral policy, is crucial. In the local groups of the workshops it was mentioned that collaboration between different policy fields now often means aligning already existing policy. The co-creation of new plans can assist in creating a shared mission and vision, which is an important requirement regarding to the national groups as well and connects to the Dutch ambition of an integrated approach (Ministry of Health, Welfare and Sport, 2015).
A last form of capacity that is not yet in place and needs additional work is the evaluation of effect of the care-PA initiatives. Proven effectivity and sustainability on the long term is capacity that is not yet available according to the workshop attendees. According to the workshop attendees this could be explained because effects of these initiatives are difficult to measure and often not direct health effects. The need for more research into cost effectiveness of these initiatives is recognised on an international level (Aluttis et al., 2013-a) and is also subject of research in the project that this study connects to, the project *'Care-PA initiatives in the neighbourhood: research on participation, action elements, impact and funding models'.* Next to building to the evidence base of local care-PA initiatives it is important to communicate these results to the stakeholders to set realistic expectations and increase the trust in prevention and health promotion among the stakeholders.

5.3.2 Recommendations for future research

In this study a new tool was developed, aimed at mapping health capacity in the local setting. Based on the experience with designing and using this tool and researching in this setting, some recommendations are made regarding further research.
The local setting seems a fitting setting for mapping health capacity. It connects to the aims of Dutch health policy to place the responsibility for public health at the municipal level (Loketgezondleven, n.d.-b) and the benefits of mapping resources for care-PA initiatives as described in chapter 1.3. In this study, the mapping of health capacity in a local setting seemed very useful. The researchers are close to the initiatives, the stakeholders and the personnel in the field which facilitates a better understanding of the setting. Mapping locally can gain insights on the strengths and limitations of the actual environment in which the initiatives are implemented (Aluttis et al., 2014). It is recommended to adapt this local focus into other research regarding health initiatives for low-SES individuals.
The Local Public Health Capacity Mapping Model (Tijhuis, 2014) was a useful mapping model to use as a base for this research. Although some limitations were identified regarding the use of the adapted mapping tool, it was a useful asset in mapping local health capacity. For other research on mapping capacity on the local or municipal level, it is recommended to take this tool in consideration. It is considered a relatively understandable tool since it has less clusters than other existing tools (Aluttis et al., 2013-b; Catford, 2005), it is effectively adapted to the local setting and has proven itself to be useful in practice in an capacity mapping activity.
However, if the tool is used it is advised to include an extra step. As explained, although open questions was assessed as an appropriate way of mapping health capacity locally, it resulted in data that was difficult to interpret. Therefore it is advised to use for instance in-depth interviews with one or two local representatives to further interpret the data and come up with more extensive conclusions. This way both the quantity and the quality of the data is increased, as it combines the possible benefits of a focus group workshop and an interview (Skovdal & Cornish, 2015).

6. Conclusion

This study aimed to answer the question: “What health capacity is present in Veenendaal and Arnhem for implementing care-PA initiatives?”. In support of this main research questions, two research objectives were formulated. The first objective was to explore the current local setting for care-PA initiatives in Veenendaal and Arnhem. The second objective was to operationalise the model of Tijhuis (2014) to this local setting, based on the exploration and on capacity mapping literature.

Based on interviews with local representatives, a local health capacity mapping tool was developed. The tool was based on literature on capacity mapping and has a strong connection with the local setting. It was used in two workshops in Veenendaal and Arnhem to identify the health capacity available in those municipalities. The availability of skilled and motivated personnel, the small scale of many initiatives, the available funding possibilities, the focus on health promotion in the municipalities and the presence and role of the umbrella organisations for sport were all considered capacity available right now. In Veenendaal specific the municipalities positive attitude towards PA was added as capacity available. In Arnhem, the strong sports infrastructure was added as capacity available. The workshops also discussed capacity that was considered not yet available. These concern creating overview in the possibilities for local interventions and initiatives, the embeddedness of collaborations and partnerships in the municipality and a focus on the co-creation of policy, the so called integrated approach. Based on these findings, it was recommended to create overview in initiatives and funding, embed collaboration for health promotion in local policy, stimulate the co-creation of policy regarding health and PA and strengthen the evidence base for local care-PA initiatives. The local setting is considered a good setting for mapping health capacity. The tool that was created is a useful asset for this purpose although it can use some strengthening in methods to interpret the health capacity mapped.

This study attempted to gain insight in the resources needed for the sustainable success of care-PA initiatives in Arnhem and Veenendaal. Through the process of capacity mapping strengths of the current setting were identified as well as opportunities for improvement. Mapping health capacity at the local level was experienced to be a very useful asset in understanding the surrounding of interventions and initiatives that combine care and physical activity in an attempt to counter socioeconomic health differences in the Netherlands.

7. References

Aluttis, C., Van den Broucke, S., Chiotan, C., Costongs, C., Michelsen, K., & Brand, H. (2013-a). Review of Public Health Capacity in the EU: Final Report. Luxembourg: European Commission Directorate General for Health and Consumers. Verkregen via http://ec.europa.eu/ health/social_determinants/ docs/report_ph_capacity_2013_en.pdf

Aluttis, C., Van den Broucke, S., Chiotan, C., Costongs, C., Michelsen, K., & Brand, H. (2013-b). Review of Public Health Capacity in the EU: Supplement to the final report. Luxembourg: European Commission Directorate General for Health and Consumers. Verkregen via http://ec.europa. eu/health/social_determinants/docs/report_ph_capacity_2013_suppl_en.pdf

Aluttis, C., Van den Broucke, S., Chiotan, C., Costongs, C., Michelsen, K., & Brand, H. (2014). Public health and health promotion capacity at national and regional level: a review of conceptual frameworks. Journal of Public Health Research, 3(1), 37-42.

Bailey, R., Hillman, C., Arent, S., & Petitpas, A. (2013). Physical activity: An underestimated investment in human capital?. *Journal of physical activity and health*, *10*(3), 289-308.

Bagley, P., & Lin, V. (2009). The development and pilot testing of a rapid assessment tool to improve local public health system capacity in Australia. BMC public health, 9(1), 413

Catford, J. (2005). The Bangkok Conference: steering countries to build national capacity for health promotion. *Health Promotion International;* 20(1), p. 1-6.

Dato, V., Potter, M., Fertman, C. & Pistella, C. (2002). A capacity mapping approach to public health training resources. Public Health Reports, 117(1), 20-27.

Ebbesen, L.S., Heath, S., Naylor, P. & Anderson, D. (2004). Issues in measuring health promotion capacity in Canada: a multi-province perspective. *Health Promotion International, 19*(1), 85-94.

Hawe, P., King, L., Noort, M., Jordens, C., & Lloyd, B. (2000). *Indicators to help with capacity building in health promotion*. Australian Centre for Health Promotion.

Herens, M. C. (2016). Promoting physical activity in socially vulnerable groups (Doctoral dissertation, Wageningen University).

Imbeau LM, Chenard K, Dudas A (2002). The Conditions for a Sustainable Public Health System in Canada: Discussion Paper 11. Ottawa: Commission on the Future of Health Care in Canada.

Kohl HW, Craig CL, Lambert EV, et al. The pandemic of physical inactivity: global action for public health. *The Lancet* 2012;380(9838):294-305.

LaFond, A. K., Brown, L., & Macintyre, K. (2002). Mapping capacity in the health sector: a conceptual framework. The International Journal of Health Planning and Management, 17(1), 3-22.

Lemmers L, Peters L. (2002). Publiek-private samenwerking. In: Jansen J. Schuit AJ, Lucht F van der. Tijd voor gezond gedrag. Bevordering van gezond gedrag bij specifieke groepen. Bilthoven: RIVM.

Loketgezondleven (n.d.-a). Gezonde gemeente – integraal beleid. Retrieved on 27-08-2017 from https://www.loketgezondleven.nl/gemeente/gezondheidsbeleid-maken/integraal-beleid

Loketgezondleven (n.d.-b). Decentralisatie – transitie en transformatie. Retrieved on 27-08-2017 from https://www.loketgezondleven.nl/gezonde-gemeente/gezondheidsbeleid-maken/wettelijk-en-beleidskader-publieke-gezondheid/decentralisaties

Maas, J., & Storm, I. (2011). Integraal gezondheidsbeleid op nationaal niveau: Wat kunnen we leren van de ervaringen uit andere landen?. *RIVM briefrapport 270161005*.

Mackenbach, J. P. (1994). 0 inequalities in health in the Netherlands: impact of a five year research programme. Bmj, 309(6967), 1487-1491.

Mackenbach, J. P., & Stronks, K. (2002). A strategy for tackling health inequalities in the Netherlands. BMJ : British Medical Journal, 325(7371), 1029–1032.

Mackenbach, J. P. (2012). The persistence of health inequalities in modern welfare states: the explanation of a paradox. Social science & medicine, 75(4), 761-769.

Marmot, M. (2005). Social determinants of health inequalities. The Lancet, 365(9464), 1099-1104.

Meyer, A. M., Davis, M., & Mays, G. P. (2012). Defining organizational capacity for public health services and systems research. Journal of Public Health Management and Practice, 18(6), 535-544.

Milèn, A., & World Health Organization. (2001). What do we know about capacity building?: an overview of existing knowledge and good practice.

Ministry of Health, Welfare and Sport (2006). Samen voor Sport 2006-2010. The Hague.

Ministry of Health, Welfare and Sport (2011). Landelijke nota gezondheidsbeleid 'Gezondheid dichtbij'. Retrieved on 16-10-2017 from http://www.regionaalkompas.nl/object_binary/o12028_5258-B5-GezDichbij-binw%5Bweb%5D%5B1%5D.pdf

Ministry of Health, Welfare and Sport (2013). Alles is gezondheid. Het Nationaal Programma Preventie 2014 – 2016. The Hague.

Ministry of Health, Welfare and Sport (2015). Kamerbrief over Landelijke nota gezondheidsbeleid 2016-2019. Retrieved on 19-10-2017 from https://www.rijksoverheid.nl/documenten/kamerstukken/2015/12/04/kamerbrief-over-landelijke-nota-gezondheidsbeleid-2016-2019

Mittelmark, M. B., Wise, M., Nam, E. W., Santos-Burgoa, C., Fosse, E., Saan, H., ... & Tang, K. C. (2007). Mapping national capacity to engage in health promotion: Overview of issues and approaches. *Health promotion international*, *21*(1), 91-98.

Mittelmark, M. B., Fosse, E., Jones, C., Davies, M., & Davies, J. K. (2005). Mapping European capacity to engage in health promotion at the national level: HP-Source. net. *Promotion & Education*, *12*(1), 33-39.

Morgan, D.L. (1998) The Focus Group Guidebook.Thousand Oaks, CA: Sage.

Peterson, E. R., & Barron, K. A. (2007). How to get focus groups talking: New ideas that will stick. International Journal of Qualitative Methods, 6(3), 140-144.

Raad voor de Volksgezondheid en Zorg (RVZ) (2010). Perspectief op gezondheid 20/20. Den Haag: RVZ. Retrieved on 5-10-2017 from http://rvz.net/uploads/docs/Advies_-_Perspectief_op_gezond heid.pdf

Rantala, R., Bortz, M., & Armada, F. (2014). Intersectoral action: local governments promoting health. *Health Promotion International, 29*(suppl 1), i92-i102.

RIVM (2014). Volksgezondheid Toekomst Verkenning (VTV). Bilthoven: RIVM.

Schrijvers, C. T., Stronks, K., Mheen, van de, H. D., & Mackenbach, J. P. (1999). Explaining educational differences in mortality: the role of behavioral and material factors. American Journal of Public Health, 89(4), 535-540.

Schrijvers, C. T. M., & Storm, I. (2009). Naar een integrale aanpak van gezondheidsachterstanden. Een beschrijving van beleidsmaatregelen binnen en buiten de volksgezondheidssector. *RIVM rapport 270171001*.

Skovdal, M. & Cornish, F., (2015) *Qualitative Research for Development*, Rugby, UK: Practical Action Publishing.

Stronks, K. (2001). Sociaal-economische gezondheidsverschillen verkleinen. Eindrapportage en beleidsaanbevelingen van de Programmacommissie SEGV-II.

Tijhuis K. (2014) *Local public health capacity: Een model voor het in kaart brengen van gemeentelijke capaciteit voor publieke gezondheid* [MSc Thesis]. Wageningen: Wageningen University & Research..

Warburton, D. E., Nicol, C. W., & Bredin, S. S. (2006). Health benefits of physical activity: the evidence. *Canadian medical association journal*, *174*(6), 801-809.

Wendel-Vos, G. W., Dutman, A. E., Verschuren, W. M., Ronckers, E. T., Ament, A., van Assema, P., ... & Schuit, A. J. (2009). Lifestyle factors of a five-year community-intervention program: the Hartslag Limburg intervention. American journal of preventive medicine, 37(1), 50-56.

White, J. (2003). Three meanings of capacity; Or, why the federal government is most likely to lead on insurance access issues. *Journal of Health Politics, Policy and Law*, *28*(2-3), 217-244.

World Health Organisation (1981). Global strategy for the Health for All by the year 2000. In: Health for All. Geneva: World Health Organisation.

World Health Organisation (1999). Health 21. The health for all policy framework for the WHO region. Copenhagen: WHO.

Appendix 1: Interview Guide

Introduction

Welcome and elaboration on research:

- Name, study, nature of research
- As explained in the email this research connects to a larger research project that is currently reviewing initiatives that use an integrated approach in a local setting: *'Care-PA initiatives in the neighbourhood: research on participation, action elements, impact and funding models'*
- The current focus of that research is the effect of the initiatives. Besides this information it is desired to find out more about contributors to these effects: what resources in the environment of initiatives influences them? What facilitates the implementation and possible success? This is the aim of my study.
- It is known that the local setting can play a big role in the assessment of these resources. Therefore I attempt, with the use of these interviews, to gain more insights in the local setting to be able to judge the existing literature on matching this setting. Hopefully, possible adaptations needed will be discovered in these interviews.
- For the later analysis of these interviews I would like to record the interviews, if this is fine by you? The recordings will be handled with confidentiality.
- Are there any questions right now? If not I would like to start the interview.

Introduction to the topic

- I would like to start with a brief introduction. After that I will introduce some concepts related to the research. Then, I would like to discuss the model that will be used in my study. The last questions will be regarding the methods of my study.
- First, can you maybe introduce yourself?
    - Job, function, tasks.
- In what ways does health promotion play a role in your job?
- Are you familiar with the program X-Fittt 2.0?
    - If not, brief explanation is available.
- Do you think this program can contribute to health promotion in your Municipality?
    - If so, in what ways?

Capacity and Capacity mapping

- Explanation capacity: Capacity can be described as all resources available that contribute to achieving objectives. In the case of health promotion this can mean, for instance, the realisation of health improvements within the target group through care-PA initiatives. Or, Aluttis et al.: public health capacity describes the organisational, human, financial, and other resources, which enable action to be taken by responsible authorities to improve health and reduce health inequalities.
- When you hear these descriptions, what are resources that come to mind?
    - Possible examples: consider for instance finance, policy, important individuals/professionals or existing health programs.
- Explanation capacity mapping: assessing the availability of these resources needed for enabling programs to succeed and stimulate health promotion is called capacity mapping. The goal is to do this objective and systematic, therefore often models or frameworks are used to assist the mapping process. In these frameworks, often different categorisations are made of capacity.

- If you were to divide capacity in a handful of different categorisations/dimensions, what would you come up with?

Introduction mapping model

- Explanation capacity mapping tool: In 2014 another student of WUR researched public health capacity on a municipal level. In her master thesis she tried to design a fitting model that could assist in the mapping of capacity. Based on literature and expert interviews the model was created.
- To be able to use this model in practice, several steps are needed. The model is effectively based on the existing literature, but not yet specified enough to use in practice. Besides that, capacity depends on the context it is researched in so mapping instruments always need to include some sort of consideration of the local setting.
- To do this I planned two interview in both municipalities with local representatives that can assist me in adapt the model to their setting. For instance, emphasising some aspects more or less and maybe add specific aspects.
- Show empty model.
- What is your first response?
    - Can you elaborate on things you consider clear or unclear about the model?
    - Can you elaborate on aspects you consider relevant or not relevant?

Mapping model

- Explanation on how to discuss the model, one dimension at a time. First empty and then including all operationalisations.
- Per dimension of the empty model:
    - To what extent do you think this dimension is relevant for mapping health capacity in your municipality?
    - How would you operationalise this dimension?
        - What elements could be used?
- Per dimension of the complete model:
    - What do you think of this interpretation?
        - Do you see important similarities with your own interpretation?
        - Do you see important differences with your own interpretation?
    - Do you consider this model to be fitting to your municipality?
        - Does it discuss the right aspects?
        - What do you think of the distinction in dimensions?

Methods

- To finish I would like to discuss possible methods for my research in your municipality.
- What stakeholders do you think are important to include in the capacity mapping process?
- If you were to come up with a method of mapping capacity, using the model we discussed, what would you do?
    - Suggestions: mindmapping, interviews, focus groups, questionnaires, observations.
- Do you think that these interviews helped me sufficiently in preparing for the mapping process, or do you recommend the use of other sources?

Appendix 2: Operationalisation Local health capacity mapping tool

Interventions and Initiatives

- *Programs* (Tijhuis, 2014): Prevention, health protection and health promotion
- Target group
    - Is it clear who is the target group?
    - Is the target group present near the interventions/initiatives?
    - How is the target group reached and found?
    - What is the motivation of the people that join?
- Other interventions and initiatives that can play a role (Bagley & Lin, 2009).
    - Social and environmental influences are addressed, strategies are deployed and effective
- Are interventions or initiatives available that can be connected/merged?

Financial and personal resources

- *Resources* (Tijhuis, 2014): financial resources, personal resources, knowledge.
- The availability of budgets and funding
- The necessity of funding, what is needed to make sure the interventions and initiatives succeed.
- Regarding personal resources everybody assisting in the realisation of care pa initiatives is discussed. (lifestyle coaches, dietists but also policy makers)
    - Who is at least necessary for the initiatives to succeed
    - What do they at least need to be able to do (skills) (Bagley & Lin, Aluttis et al., 2013-a).
    - Is this about 'hard' skills or 'soft' skills such as improvisation abilities, drive, acceptation?
- Are the people currently involved skilled enough? If not so, are educational possibilities available?

Collaborations and partnerships

- *Partnerships* (Tijhuis, 2014): Intra/inter municipal, public, private, other (community)
- What collaborations (within the municipality) are available and needed for the initiatives
    - Who should work together for the initiatives to succeed
    - Are all necessary collaborations available
    - Do they work sufficiently,
- To what extent the connection between theory and 'people in the field' is made?
- How strong are the connections within networks
    - How easy do relevant stakeholders find each other
- Integral collaborations: is attention payed in the municipality to whether different policy fields work together
    - Whose responsibility is sports policy in the municipality?

Policy and social context

- *Policy* (Tijhuis, 2014): Public health, integral, strategic vision
- *Organisation* (Tijhuis, 2014): Structure, culture, municipal task division regarding public health
- *Municipal context* (Tijhuis, 2014): (political environment) and characteristics
- (municipal) policy
- The role of health promotion, care and sport within municipal policy
    - Facilitating mind-set
    - Is health promotion a central term in this municipalities policy?
- What is the size of the municipality and what influence does this have on relevant subjects?
    - workload of alderman
    - reachability of target group
- Presence of the target group
    - Vulnerable people
    - Sporting people
- Decentralisation of the social domain leads to a new role for the municipalities.
- Inter-sectoral and integral policy (joint up government, Catford, 2005)