**Hamburg University of Applied Sciences**

**Faculty of Life Sciences**

**Health Sciences degree**

# The stakeholder role in health enhancing physical activity policies

Master Thesis

Date of submission: 19.08.2013

Submitted by: Anne Wiechmann

Matriculation number: 2068875

Examination supervisor: Prof. Dr. Joachim Westenhöfer

Secondary supervisor: Dr. Maja Larsen

# Acknowledgements

# Abstract

**Background:** About one third of the total population is insufficient physically active - this considerably affects health. Policies address this dilemma but are accompanied by challenges. Especially the gap between scientific and practical policy work appears to be a reason for the lack of success. It is known that stakeholders can serve as interesting link between research and practice - but actual roles and their recognition are insufficiently defined.

**Aim:** The aim of this study is to operationalize the stakeholder role by considering both sides: the research and the practice. Gained knowledge is used to develop stakeholder indicators – a recommended tool to identify stakeholders in differing contexts which is required in policy development.

**Methods:** Two data sources - scientific literature and local policy cases from 5 different countries - are elaborated during 4 steps: Information gathering, expert consultancy, validation and a pilot-testing in the German environment was done in order to elaborate the stakeholder role and indicators.

**Results:** The stakeholder role can be operationalized within 4 dimensions: the necessity to consider stakeholders in policies**,** the importance to consider different stakeholders (also across sectors and levels)**,** the need to consider stakeholder knowledge and active stakeholder participation. Further, 3 hypotheses enable first instructions to deepen the current stakeholder role: Stakeholder identification needs to be done more strategically, exact timing of stakeholder inclusion influences the policy's success and stakeholders prove to be mediators between research and practice. On the base of the operationalization two loops of consultancy and validation transform indicators, a tool to recognize the stakeholder role in physical activity policies. The pilot-testing reveals changes that enhance the tool's applicability.

**Conclusion:** This study confirms the hypotheses that stakeholders should take an integral part in the HEPA policy-making. According to the findings of this work the developed indicators should be applied and evaluated in the future in order to emphasize the stakeholder role more clearly.

# Table of contents

# List of figures

# List of tables

# List of abbreviations

| | |
|---|---|
| CIHR | Canadian Institute of Health Research |
| Clu | Cluj County, Romanian local policy case |
| Cop | Copenhagen, Danish local policy case |
| EU | European Union |
| Esb | Esbjerg, Danish local policy case |
| HEPA | Health enhancing physical activity |
| Her | Herefordshire, United Kingdom local policy case |
| KT | Knowledge translation |
| Lat | Lathi, Finnish local policy case |
| Net | Netherlands local policy case, no concrete city |
| Od | Odense, Danish local policy case |
| REPOPA | Research into Policy to enhance Physical Activity |
| Ro | Rome, Italian local policy case |
| USEPA | United States Environmental Protection Agency |
| WHO | World Health Organization |
| WP | Work package |
| WP 1 | First work package of the project "Research into policy to enhance physical activity" |

# 1. Introduction

In today's time of physical inactivity and obesity projects that encourage movement among citizens are more important than ever. At the same time policy processes are complex and lead into challenges in phases of development and implementation (WHO 2005). Here, approaches of practice and science indicate remarkable differences: While the practical work is based on *'colloquial'* evidence driven by experiences or traditions, the *'scientific'* approach relies on evidence-based research in a methodological manner (WHO 2005). Both fields contribute with different valuable contents to an effective policy. Thus, mediators who can connect these counterparts are needed; the integration of various stakeholders in policy processes can serve a solution. In reality, however, this is not consistently implemented (Daugbjerg et al. 2009, Bornstein et al. 2009). Interfaces of meaningful stakeholders and policymakers remain unexplored and tools to evaluate the degree of stakeholder involvement are required (Daugbjerg et al. 2009, Kilpelainen et al. 2008, WHO 2005). At the same time, this gap leads to questions and the content of the following thesis: How are stakeholders actually involved in current physical activity policies? Ways to investigate the role of stakeholders and indicators to recognize the degree in physical activity policies are pursued.

First, the context of physical activity and policies is introduced in the theoretical background. Further, the current knowledge of stakeholders is presented that allows defining the starting point of the empirical part. Here, a literature research and qualitative interviews accessed from the EU project 'Research into policy to enhance physical activity' (REPOPA) enable to operationalize the stakeholder role. Through the knowledge gained from this step indicators to recognize the stakeholder role can be developed. In line with the basic idea - to links research and practice- the indicators are reviewed by experts from both sides. Finally, the outcome is pilot-tested based on a German project. During the testing phase gaps are identified whose revision increase the tool's applicability. Recommendations and outcome limits are discussed in the end.

# 2. Theoretical background

The necessity to enhance physical activity is largely accepted. Effects of physical in- and activity are introduced in the following.

## 2.1 The significance of physical inactivity

Physical inactivity is one of the main predictors for several diseases and a serious contributor to disability and death (WHO 2012, WHO 2009). Health reports highlight that physical inactivity has a major impact on non-communicable diseases such as coronary heart disease, type 2 Diabetes and even some cancer types (WHO 2010, p. 10). In 2008 inactivity has lead into 3.2 million deaths which is 5.5 % of the total deaths worldwide. According to the global observatory data provided by the WHO the prevalence of insufficient physical activity[1] is about 31 % of the total population. Thus, physical inactivity is ranked 4th out of the 10 leading risk factors causes for death worldwide (WHO 2009). Further to mention are health costs associated to physical inactivity. With 1.5-3.0% of the total direct healthcare costs in developed countries physical inactivity displays a considerable economic overload (Oldbridge 2008). Forecasts even predict a further decrease in physical activity (WHO 2010, p. 10). The consequences will be noticeable in the increase of non-communicable diseases and higher health care costs (WHO 2010, p. 10).

Summarized - inactivity is a global risk factor that burdens human life's, causes tremendous health costs and lead to the need to strengthen physical activity across the population. If physical inactivity harms people's life it is consequent to investigate how to change people's behaviors. To further pursue the idea towards a health perspective it is now necessary to turn from physical inactivity consequences towards the impact that physical activity has on health.

## 2.2 Physical activity promotion

As an answer, a significant amount of substantial evidence has been undertaken to combat the "pandemic of physical inactivity" (Kohl et al. 2012). Meaningful health organizations such as the *WHO* dedicate entire sections to the field of physical activity and also significant journals such as *The Lancet* publish series that solely target physical activity (The Lancet 3013, WHO 2013a).

It is visible that at least 150 minutes of moderate physical activity throughout the week (such as aerobic or walking) can lead into healthier lives among adults (WHO 2010 p. 8). In addition, positive side effects are accompanied by physical activity. To name a few, physical activity can improve sleeping, reduce stress and enable relationships between people and their surroundings. Overall, these aspects lead to an increased quality of life and justify physical activity under the aspect of health (Baum 2002, p. 14).

To especially promote physical activity two aspects appear to be important: the environment and policy approaches. Both are meant to change the amount of physical activity among the

---

[1] Here, insufficiency is defined as doing less than 5 times per week 30 minutes of moderate activity or less than 3 times of 20 minutes weekly vigorous activity (WHO 2012).

population (Heath et al. 2012, Das & Horton 2012). Action can take place on national, regional and local levels but also across level (WHO 2010, p. 36 f., Walt 2004, p.42f.).

In this thesis the contribution that environmental factors and policies can make towards physical activity and health build the core part. Therefore, it is necessary to introduce important characteristics:

The environment consists of natural, built and social settings. All provide opportunities for citizens to be physically active (Das & Horton 2012). The social environment contains the context in which people act and is represented through aspects such as memberships, neighborhood or workplaces (Yen & Syme 1999). Whereas the natural environment covers all conditions such as climate, scenery or elevations (Oliveira-Brochado et al. 2010) the built environment is defined as the totality of places constructed by humans, including buildings, community design, transportation infrastructure, parks and trails (Sallis et al. 2012). In particular bicycle lanes, green areas or the offer to sports and exercises characterizes the field. Changing the built environment and policies is expected to have long-term impacts on people who are exposed to these places (Sallis et al. 2012).

To effectively utilize environmental factors physical activity policies build a fundamental tool. Through policies countries, regions and municipalities are equipped with preconditions to facilitate the use of motion among its target groups.

However, only limited guidelines exist on how to effectively address and implement physical activity interventions and strategies (WHO 2010, Oja et al. 2010, US Department of Health & Human Service 2008). Still, it has not been able to control the amount of physical inactivity. Although a lot of research is available with respect to specific interventions in physical activity promotion there is no single strategy recommended. Known is the need to strengthen the implementation of policies that enable populations to be healthy through physical activity (Department of Health 2004). Moreover, inter-sectoral approaches that operate at various levels are highlighted to be most successful to increase physical activity policies (Kahn et al. 2002, Sallis & Glanz 2009). Here, stakeholders could act as mediators who facilitate bridges.

In order to pick up the previously described dilemma of limited interactions between existing research data and application in practice this can serve as one reason for the failure of success. A consequent reaction is to focus on policy strategies that can be applied for both poles. To follow this demand the next paragraph introduces policies and how they are understood in this thesis.

## 2.3 Health policies and policy making

In general a policy deals with the public and its problems (Davies et al. 2000, p. 14). In the present thesis a policy is defined as follows:

"Policy provides an organizing structure and guidance for collective and individual behavior. It may be defined as legislative or regulatory action taken by federal, state, city, or local governments, government agencies, or nongovernmental organizations such as schools or corporations" (Schmid et al. 2006).

The form of implementation depends on the policy setting and can reach from national and regional to local levels (Walt 2004, p.42f.). Further, the policy type can be specified depending on the policy problem and goal (Bell 2009, p. 5). Here, a range of different policy classifications exist. Two different approaches stressed in the current literature are shown in the following in order to provide the main policy background. The first model expressed in Table 1 divides policy types along clear structures whereas the second model classifies policy categories according to its multifaceted nature.

| Policy type | Explanation |
|---|---|
| Functional policy | Provide services to parts of the society or sectors and clearly define the accountability of service provider and recipients |
| Intentional policy | States the purpose or objectives and defines whether action will take place on national, regional or local levels |
| Population based policy | Target particular groups |
| Programmatic policy | A part of a package embedded in an overall policy |

**Table 1: Policy types according to Bell (2009, p. 5)**

However, in reality a clear typology hardly exist (Lavis et al. 2002). Furthermore, policy categories focus on the nature of a policy. This leads to a more applicable classification which is recommended by Lavis et al. (2002) and presented in Table 2. Accordingly policies can be divided into:

| Policy type | Explanation |
| --- | --- |
| Governance policy | Creates jurisdictions and responsibilities |
| Financial policy | Financing that support the policy |
| Delivery policy | Focus on service provider and receiver, the kind of service and the setting |
| Program policy | Deals with the content of service and the target group |

**Table 2: Policy types according to Lavis et al. (2002)**

Moreover, the context in which the policy takes place shapes the policy type. In line with the policy definition, different settings influence the kind of participants. Depending on the location of policies involved partners can reach from politicians, non-governmental agencies to health consumers (Bell 2009, p.7).

### 2.3.1 The policy cycle

Independent from the policy type the policy process describes a cycle (Fisher et al. 2007). The following Figure 1 presents the 5 phases from problem definition to evaluation that come across in policy practice.
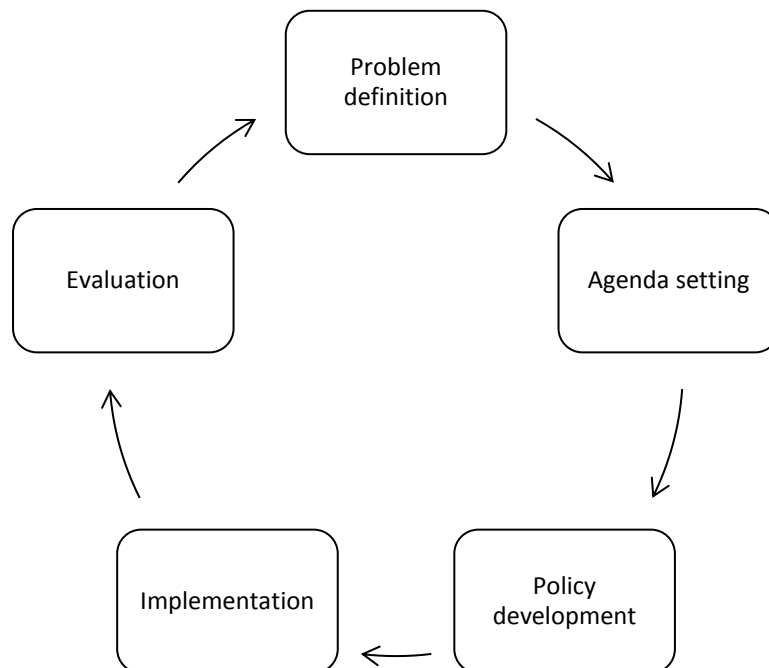


**Figure 1: The policy cycle**

(Fisher et al. 2007, p. 43ff)

Dependent on the different policy phases in the cycle different forms of evidence use can play a role (Bell 2009, p. 6). Thus, the demand in phases of agenda setting may differ from needs during the implementation phase. Innovative forms of policy making stress different participants involved in policies as they disclose different kinds of evidence (WHO 2010, p. 11, Lavis et al. 2009, Lavis et al. 2002). Going back to the previous dilemma of missing bridges between research and practice the stakeholder consideration in policies is confirmed once again. If stakeholders can enhance the policies' quality through different kinds of evidence it is important to understand the meaning of evidence in the context of policy processes. This is introduced in the following part.

### 2.3.2 Evidence use in policy making

Overall, the term evidence represents research evidence but also other kinds of evidence. This can be raised through various stakeholders. There, a variety of sources can be regarded as evidence and cover expert knowledge, statistical data, innovative ideas but also finance and economics in general (Davies et al. 2000, p. 23). Specifying the use of evidence is complex and differently understood by different participants (Nutley et al. 2007, p. 34ff).

The following paragraph discovers the importance and implications of evidence use to understand the different kinds of evidence that shape a policy-making process and decision-making.

In the context of policy development evidence can be regarded as a tool to gather information (Davies et al. 2000, p. 23). Further, evidence needs to provide target groups with the currently best available information in order to ensure well-informed decision-making and effective evidence transfer (Oxman et al. 2009). The implications underline the necessity to adapt evidence use according to its purpose. This can be explained along the models by Weiss (1979). Accordingly, the kind of evidence use can be distinguished between 6 models. Current literature still relies on these models by stating at the same time to consider the policy cycle in which different needs of evidence use arise (Fisher et al. 2007, Lavis et al. 2002). Thus, different models may be used in different process sections. The essence remains to regard evidence as a "companion" adapted in different policy phases (Nutley et al. 2007, p. 76f.). The following Figure 2 presents each model and combines the policy cycle with regard to different facets of evidence use in policy-making:

**Figure 2: Evidence use within the policy cycle**

(Adapted from Weiss 1979, Fisher et al. 2007)

The above Figure 2 explains the thought of stakeholders in policies. If the policy is processed through a cycle where different phases require different types of evidence it is clear that this cannot be managed by a single professional group. Combining evidence and practical policy phases can be realized through stakeholders. However, it describes an ideal way. Going back to the introduction part the balance between research and practice hardly exist.

Challenges occur with respect to an imbalanced evidence uptake: knowledge based on experiences and political interests are often taken as a high priority whereas the use of research evidence is neglected in many decision making processes (WHO 2005, Lavis et al. 2002). Barriers that prevent practitioners from considering research evidence mainly lie in non-sectional working habits (Davies et al. 2000, p.14-16). Overall, the lack of research evidence use impedes the efficiency of a sound policy implementation and maintenance (Zwarenstein & Reeves 2006).
Connecting this to the context of physical activity the consideration of existing research could lead to more effective policies and successful physical activity promotion.
At the same time it has become clear that a realistic and comprehensive policy-making is multifaceted and does not contain research evidence alone. Policy-makers and other stakeholders cover a wide range of expertise also important to take into account. This leads to the need to strengthen the relationship between stakeholders represented by policymakers, researchers and other participants involved in the policy making process – also to close the gap between research

and practice. Inter-sectoral collaboration is therefore underlined by both, physical activity and general policy approaches (Bell 2009, p.7, Zwarenstein & Reeves 2006).

To meet the previously mentioned challenges the "evidence-informed" policy model uncovers interesting aspects.

It can be regarded as a "source of enlightenment and a way of thinking about an issue, not an instrumental tool defining and then determining the right solution to a problem" (Lomas & Brown 2009).

Its value highlights that research evidence is a factor but not the only aspect that shape a decision. It is furthermore one facet in between the context of action that needs to be taken into account (Oxman 2009, Ciliska et al. 2010). That means on the one hand to apprehend content for example along randomized controlled trials and on the other hand to consider other relevant evidence types such as other beliefs, experiences, institutional constraints or ideas (Lavis et al. 2003). The following Figure 3 illustrates the factors shaping evidence informed decision-making in public health settings (Satterfield et al. 2009).

Environment & organizational context
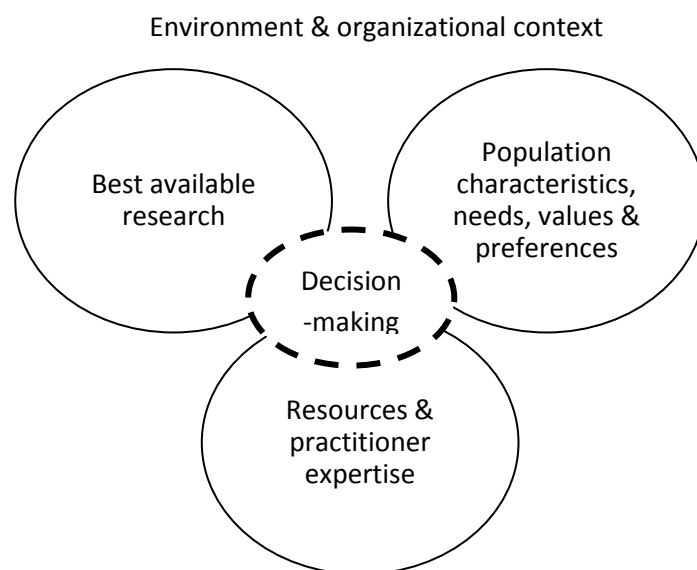


**Figure 3: Evidence informed decision-making**

(Satterfield et al. 2009)

### 2.3.3 Knowledge translation as an interface

Nevertheless, a variety of barriers such as finance, access, readiness or time exist in order to effectively utilize evidence informed decision-making (cf. LaRocca et al. 2012).

Based on this circumscribed context knowledge translation can be regarded as an exchange tool in between evidence informed policy making settings and its participants (CIHR 2012). The framework has to be seen as a process between relevant stakeholders to benefit from multiple systems in order to improve health and the surrounding system (WHO 2005). Overall, the concept of knowledge translation supports evidence informed decision-making processes and is connected to increased health outcomes (Lavis et al. 2003). Moreover, it confirms the need to consider stakeholders.

In summary, this paragraph has shown significant reasons to consider stakeholders as mediators between research and practice. This is true for both, physical activity promotion and policies.

The next chapter about the current field of health and physical activity policies aims to show the range of implementation so far.

## 2.4 The application of health and physical activity in policies

The next chapter introduces current efforts to strengthen physical activity and health in policies in order to connect previously introduced parts.

### 2.4.1 Health in all policies

Significant reasons to promote health through policies are stated already - also with respect to positive side effects. Moreover, the causes for health are mainly raised outside the health sector. Therefore, the presence of health is not only the mandate of the health sector – the responsibility lies between sectors (Adelaide Statement 2010). And again, this is only realizable through different stakeholders.

In order to declare this, the "Adelaide Statement on Health in all policie"s calls for

"a new social contract between all sectors to increase human development, sustainability and equity to improve health outcomes" (Adelaide Statement 2010).

All sectors on different policy-making levels should target health and well-being. There, the government but also the civil society and the private sector need to be regarded as an entity building a network. As an example the sector of infrastructure, planning and transport should be

aware that roads and planning can positively influence the degree of physical activity opportunities such as walking and cycling. Correspondingly their policies need to point out health issues as well (Adelaide Statement 2010).

According to the Adelaide Statement working group the following figure highlights aspects in need to be included in a successful policy. The below Figure 4 shows six facets contributing to the health in all policies thought. For this thesis 3 aspects are of special importance:

- stakeholders and their engagement
- accountability and participation
- cross-sector initiatives and networking

All are considered as characteristics to identify the importance of stakeholders in policies and to build the fundament for further procedures.
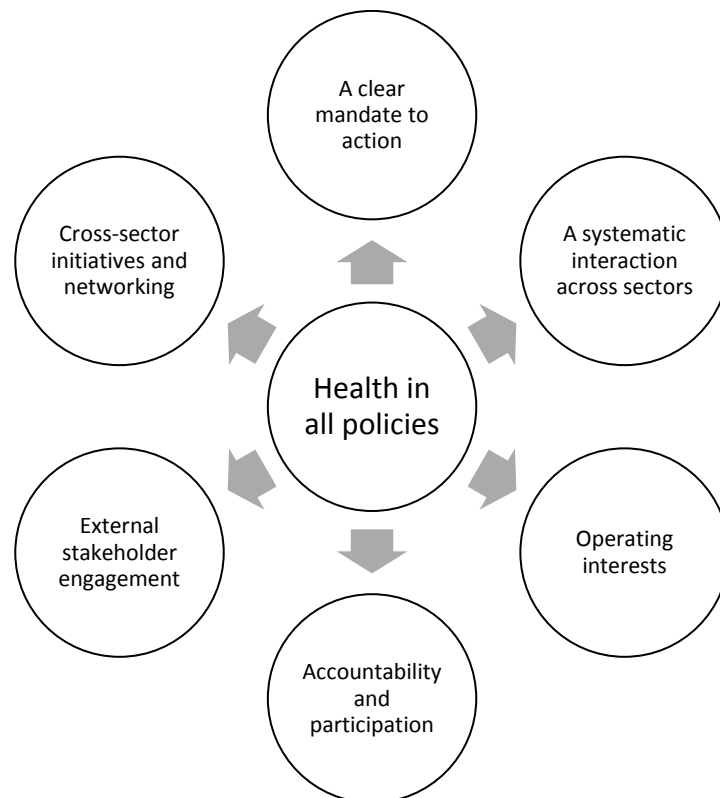
**Figure 4: The health in all policy approach**

(Adelaide Statement 2010)

Continuing with the idea of health in all policies now enables the introduction of health enhancing physical activity and related policies. The following part defines the concept and outlines the current state.

## 2.4.2 Health enhancing physical activity and - policies

Across the European Region health enhancing physical activity (HEPA) is a fixed term. It is defined as all kinds of physical activity[2] that positively impact health and functional capacities without risk or harm (Foster 2000).

It is important to differentiate between HEPA and HEPA policies in order to gain a deeper understanding. As stated above, the concept of health enhancing physical activity has the objective to promote health. This can be reached through various sub-goals such as to decrease obesity or pollution for a better environment - every time by being physically active.

In contrast HEPA policies serve the structure aside the field of physical activity. Here, the main objectives are taking choices with respect to the policy direction: the selection of focus groups for HEPA, economic considerations, the kind of services that will be provided but also equity aspects are decisions in need to be taken in HEPA policy making. However, a proper HEPA policy definition is lacking and implemented traditions hardly exist (Oja et al. 2010). Efforts are currently in progress in order to combat these gaps. The following paragraph presents an overview of current projects and publications.

Practically, the current EU project "Research into Policy to enhance Physical Activity" (REPOPA) reacts on HEPA policy gaps. REPOPA is a five year (October 2011-October 2016) EU funded 7th framework program on "Cooperation". Referring to the already mentioned imbalanced evidence use the project is raised by the fact that good quality evidence exists which is rarely taken up into policy practice (Davies et al. 2000, Stetler et al. 2009).

By assessing and facilitating the collaboration between research and policy practice on national, regional and local levels and across all policy types the objective of REPOPA is to build bridges between both poles. In turn this is meant to increase the sustainability of physical activity in policy making. Internationally linked the project gains its character by crossing borders. 10 partners out of 7 different countries within Europe and Canada build the REPOPA network partners. Differentiated by seven work packages (WP) the project discovers the role of evidence in policy making (WP1), explores innovative ways along real-world interventions and game simulations (WP2 &3) in order to develop and implement guidelines (WP4). All steps are accompanied by management, evaluation and dissemination strategies (WP5-7). The project is seen as the keynote of this thesis. Implications are mentioned later.

---

[2] Here, physical activity means an activity of at least moderate intensity such as the raise of heart beat body temperature and/or breathe frequency (Cavill et al. 2006).

Earlier, other researchers appraise European national HEPA policies with respect to occurrence and quality (Bornstein et al. 2009, Daugbjerg et al. 2009). The authors highlight an increased trend towards HEPA policy development and report the incorporation of implementation plans, time frames and budget considerations as solid components. However, clearly stated as a lack in policy contents are towards cross-sectoral collaboration and evaluation (Daugbjerg et al. 2009) as well as insufficient allocation of roles and responsibilities (Bornstein et al. 2009). Here, the authors point out a general miss of cross-sector and –level work across governmental, private and non-governmental sectors. Together with the lacking evaluation and goal specificity the clear need for more specific and measurable goals in inter-sectoral working environments is stated. Altogether, a consideration could contribute to greater policy success (Daugbjerg et al. 2009, Bornstein et al. 2009).

Unevaluated stakeholder roles could serve one reason for drawbacks in HEPA policies. Returning to the model of health in all policies these aspects are of special importance – thus, strengthening stakeholders as facilitators is justified once again.

In this thesis the described gap leads to the determination of the topic. The discovery of stakeholder roles that could enhance the degree of cross-sector work and a tool to recognize stakeholders in HEPA policies is the main purpose of this study.

## 2.5 Specific background

Based on all aforementioned facts inter-sectoral policy approaches are most successful to increase physical activity– even if not completely implemented (Kohl et al. 2012, Bornstein et al. 2009, Daugbjerg et al. 2009, Sallis & Glanz 2009, Kahn et al. 2002). The method to reach various sectors and stages of knowledge is translated through stakeholders (Lavis et al. 2009) who therefore build a main focus in this thesis.

### 2.5.1 The definition of stakeholders in general

With regard to participants who shape a policy it is important to gain a deeper insight into the stakeholder theory. The roots are traced back into the business theory and build the general framework also applicable for the health environment.

The question of "who is a stakeholder" is not clearly definable. Furthermore, stakeholders can be persons, groups, societies but also environments (Mitchell et al. 1997). Having a "stake" in that sense describes the meaning of having an interest (Friedman & Miles 2009, p. 9).

Descriptions of stakeholder constitutions are wide-ranging. Main definitions are summarized by Friedman & Miles (2009):

"A stakeholder in an organization is any group or individual who can affect or is affected by the achievement of the organization's objectives" (Freeman 1984 cited in Friedman & Miles 2009, p. 5).

Another definition describes stakeholders as "depen(dent) on the firm in order to achieve their personal goals and on whom the firm is depending for its existing" (Steadman & Green 1997, cited in Friedman & Miles 2009 p. 5).

Moreover, stakeholders are characterized as "vital for the survival and success of the organization" (Freeman 2004 cited in Friedman & Miles 2009, p. 4) and preventive for performance failures (Friedman & Miles 2009, p. 2). Beside differing details of definitions in common is the bi-directionality of relationships between stakeholders and organizations. This is expressed through power, dependence and reciprocity in relationships. The nature can differ with respect to different dominance – more power on the part of the organization, on the part of stakeholders up to mutual power dependence (Friedman & Miles 2009, p. 94 cited from Mitchel, Agle and Wood 1997).

Up to now, the distinction between stakeholders and organizations has been made. Given the fact that also organizations have a stake on the current process they are also categorized as stakeholders. Therefore, it is important to distinguish between internal and external stakeholders: Here internal stakeholders are those who directly have the mandate to develop the policy whereas external stakeholders can be referred to interest groups acting outside the direct policy development. Nevertheless also external stakeholders do have a stake in the policy (Friedman & Miles 2009 p.14).

### 2.5.2 Stakeholders in HEPA policies

In this thesis stakeholders are all kind of experts and target groups affected by the policy. According to the health in all policies approach this can go beyond the health sector in order to bundle information from different points of view (Jack et al. 2011, Adelaide Statement 2010). Practically, stakeholders can be embodied by policy-makers, schools and day care institutions but also researchers or lay people (Lavis et al. 2009).

Raised already in the general introduction part growing evidence confirms the importance to include different kinds of stakeholders and their interests. It ensures a comprehensive view, combines experiences and tacit knowledge that increase the input for problems and solutions

which characterizes the model of evidence informed policy making (Boyko et al. 2012). Further, Carcasson (2009) highlights stakeholder inclusion in community issues in order to raise the potential for learning and action. Beside the significance to consider stakeholders also statements with regard to the stakeholder selection have been made. The United States Environmental Protection Agency edited a report for improved science-based environmental stakeholder processes in which a balanced and complete representation of interest groups is recommended (USEAPA 2001). Outcomes are stated as improved capacity building and knowledge exchange for health improvements (Boyko et al. 2012).

In addition, first efforts that indicate the increasing stakeholder significance exist. A study protocol by Watt et al. (2012) highlights the need to include stakeholders (clinicians, consumers and 'average citizens') into policy making processes. The basis of this work is the integration of scientific and colloquial evidence under the objective to improve the decision making process. Although findings have not been published so far outcomes of knowledge sharing groups, discussions and interviews will be informative to understand, develop and evaluate processes in collaboration with different participants (Watt et al. 2012).

As shown above, many studies state stakeholder values when it comes to a comprehensive approach. However, little investigations have been made that actually include different stakeholder perceptions into policy-making processes (Gagliardi et al. 2007, Kothari et al. 2005). The scope of action depends on the significance attributed to stakeholders in a policy making process (Lavis et al. 2009) but also refer to contextual factors (Hawe et al. 2004). At this point the range of inconsistent and unclear stakeholder roles in practice is contrary to the stakeholder values and evidence-informed models provided by the literature (Lavis et al. 2002, Fortselund et al. 2003, Buchan et al. 2009, Gagliardi et al. 2007, Kothari et al. 2005). This is also confirmed by the evaluation of HEPA policies stated above (Daugbjerg et al. 2009, Bornstein et al. 2009). Theory and practice appear to be on different levels. This gap is targeted in this thesis and discovers the stakeholder role in practice more closely.

Hereby, contextual factors – as they arise in different policies- automatically challenge standardization, comparability and sustainability. The risk that outcomes are connected to the specific context in which interventions took place needs to be considered. This leads to the tool determination (WHO 2005, Hawe et al. 2004). For this purpose health indicators are clearly recommended by the WHO and the European Commission (European Commission 2013, WHO 2001a). Thus, a deeper insight into health indicator characteristics is worthwhile and stated below (Kilpeläinen & Aromaa et al. 2008).

### 2.5.3 The definition of health indicators in general

In general, health indicators serve as a tool to operationalize and distribute facts and information for policies (Kilpeläinen & Aromaa et al. 2008).

According to the WHO an indicator is defined as:

"A variable with characteristics of quality, quantity and time used to measure, directly or indirectly, changes in a situation and to appreciate the progress made in addressing it" (WHO 2001a).

Based on reliable and comparable data it provides a framework that facilitates the identification of gaps, differences and similarities that sharpen the policy's outcome and guidance for future policy-making (European Commission 2013). Furthermore, indicators support to monitor and compare health aspects and determine policy priorities that in turn raise the potential for action. Crucial is the fact that an indicator it is not a fixed product and requires advanced continuity (European Commission 2013).

According to the European Commission indicators are often regarded as a tool reflecting the reality. However, indicators always need to be classified into the context of the specific case. Therefore, the development of indicators requires an extensive analysis of national implications as well as international comparison (European Commission 2013).

### 2.5.4 Stakeholder indicators

With reference to the general health indicators the European Commission provides the broad framework. Now- as recommended- this framework needs to be enriched with practical content. In this thesis that means to develop meaningful indicators in order to recognize the stakeholder role in HEPA policies. Up to now stakeholder roles are unclear or even neglected – this is confirmed by physical activity and policy models (Bornstein et al. 2009, Daugbjerg et al. 2009, Sallis & Glanz 2009, Kahn et al. 2002). At the same time the literature confirms the necessity to strengthen the roles of stakeholders in policies (Boyko et al. 2012). At this point an empirical part is necessary.

In the context of this thesis the development of stakeholder indicators can meet the needs to disclose stakeholder participation and facilitate to link research and practice. This leads to the thesis' aim and research questions.

## 2.6 Aim and research question

Retrospectively it is now clear that health through physical activity needs to be promoted which is underlined by the HEPA concept. To address physical activity the policy approach is highlighted– this is also justified by the concept of HEPA policies and by health in all policies. Further, different fields of physical activity, policies and evidence use refer to multifaceted work and inter-sectoral collaboration as the most successful approach (Adelaide Statement 2010, Sallis & Glanz 2009, Kahn et al. 2002). This raises the need to award stakeholders a higher priority (Lavis et al. 2002).

However, the implementation and evaluation of stakeholder roles is currently not a permanent component in HEPA policies (Bornstein et al. 2009, Daugbjerg et al. 2009). At this point this thesis starts. The aim of this study is to operationalize the stakeholder role that allows developing a tool to identify stakeholders in HEPA policies. Therefore, it is necessary to define the following questions:

What is the stakeholder role in health enhancing physical activity policies?

And

Which indicators support to recognize the stakeholder role in HEPA policies?

## 2.7 The target group

Generally, the outcome supports the major thought - to link research and practice. Therefore, implications of the stakeholder role and stakeholder indicators target both, policy practice and researchers mainly within the REPOPA project (cf. p. 11). There, outcomes are applied in WP 4 where implementation and guidance for best practice policy making is created through Delphi processes. In addition – for policy practice use – stakeholder indicators can raise awareness in the sense of a self-evaluation tool. If practitioners decide to evaluate their entire project stakeholder indicators offer the opportunity to appraise a part of it. Raising awareness, discovering strengths and weaknesses are meant to open discussions among practitioners that can raise action if necessary. Therefore, the outcome of this thesis needs to be understood as a facet in order to enhance the effectiveness of physical activity policies.

# 3. Method and materials

As presented in the introduction the stakeholder role requires an operationalization. In the following chapter is elaborated how to operationalize the stakeholder role.

Initially, it is important to remind how this thesis is embedded into the REPOPA framework. The following Figure 5 indicates this.
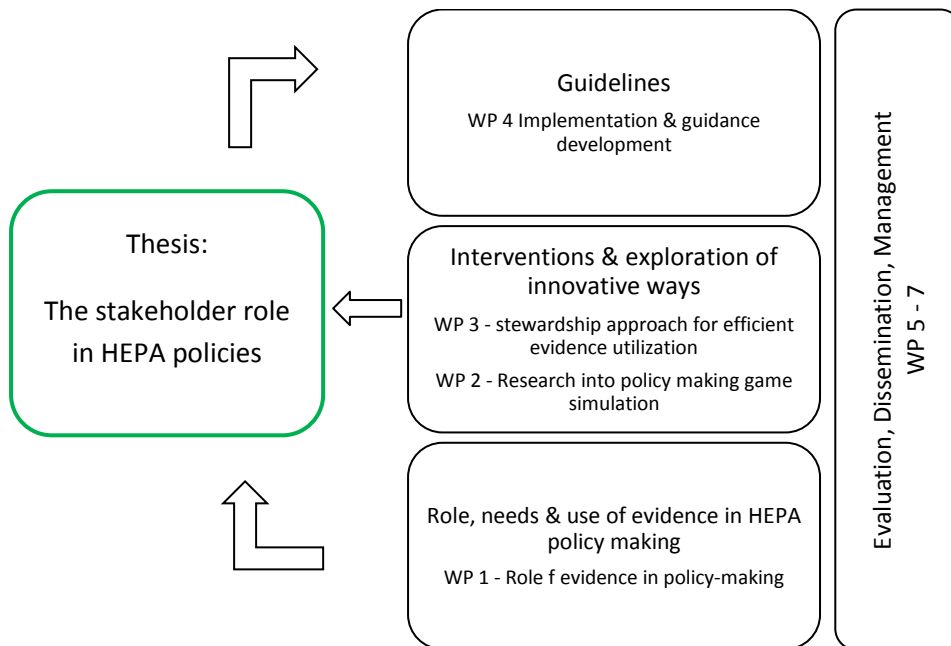


**Figure 5: The position of this thesis in the REPOPA project**

It is visible that main sources are accessed from the work package 1. The phases of interventions and the exploration of innovative ways (WP 2 and 3) are currently in progress and therefore only shape this thesis. Outcomes of this thesis lead into the work package 4 and are disseminated and published.

Concrete, this thesis is conducted along the 4-step method for indicator development by Russel et al. (2011). The following Figure 6 presents the procedure at a glance.
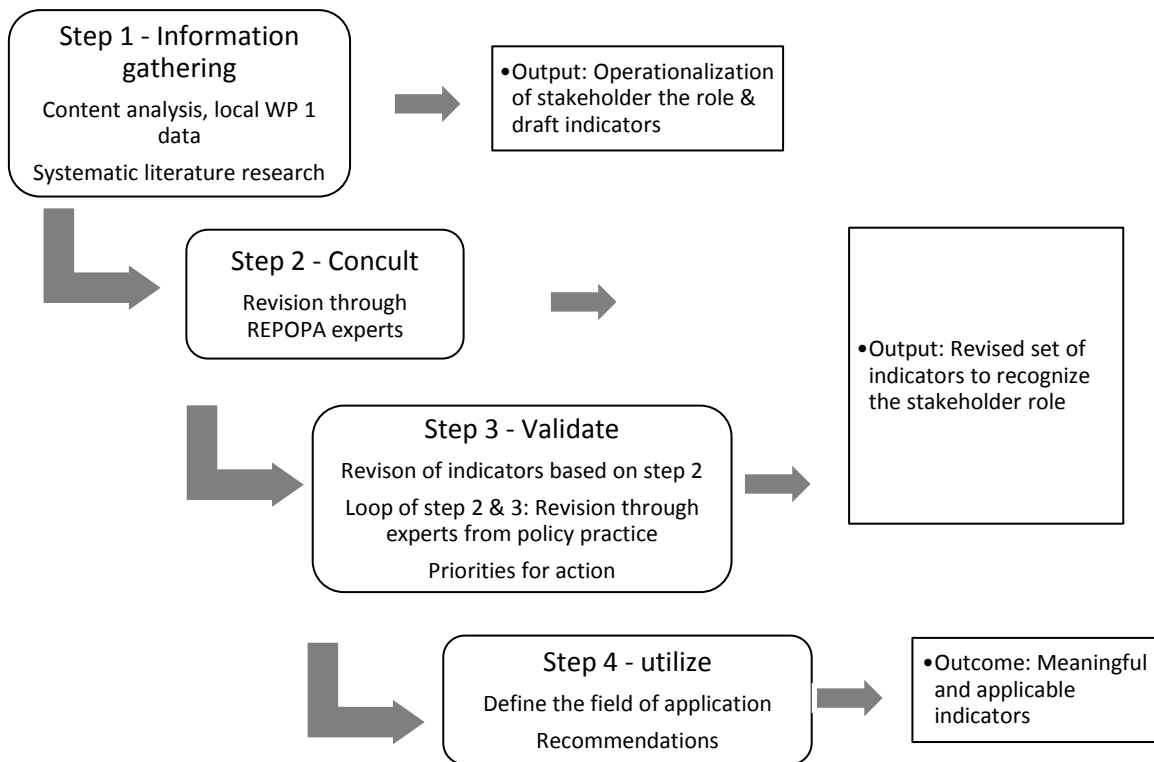
**Figure 6: 4-step methodology**

(Adapted from Russel et al. 2011)

For further details every step is described in the following. Especially this procedure shows how data is treated in order to result into the understanding of stakeholder roles and stakeholder indicators applicable for practice.

## 3.1 Step 1 - information gathering

The first part of information gathering is processed through the content analysis based on Krippendorf (2003) and Lamnek (1995). Included data are already existing REPOPA work package 1 data and the analytical construct in form of a systematic literature search. Triangulations between WP 1 content and literature enable to discover the stakeholder role that in turn allows the development of a draft stakeholder indicator set. As a major characteristic of content analysis the so called abductive inferences are met by this triangulation (Krippendorff 2013, p. 170). Nevertheless, deductive but also inductive inferences will be drawn and are explained later (Mayring 2008, p. 74 f.). Along this qualitative procedure currently unknown phenomena and meanings that evaluate the stakeholder role in HEPA policies can be identified. Therefore, it is considered as an appropriate method for this thesis.

Before presenting the methodological procedure of content analysis and systematic literature research the following Figure 7 illustrates an overview. This aims to show how both procedures relate to each other. A detailed flow diagram is presented in the appendix.
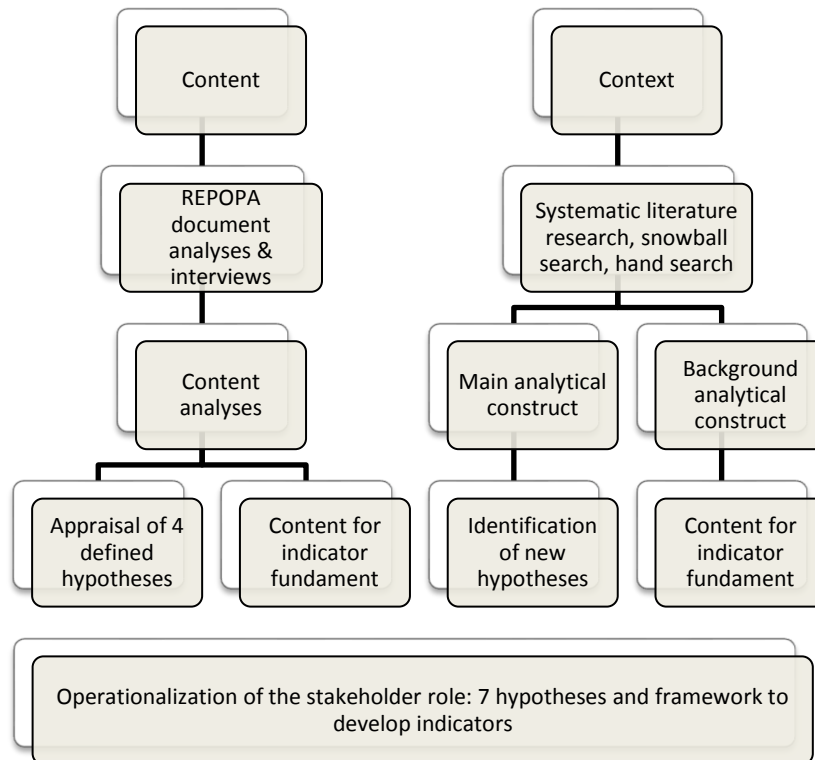


**Figure 7: Overview of data processes**

### 3.1.1 Content analysis of work package 1 data

The strategy to process data for the stakeholder role operationalization is shown in the following.

### 3.1.2 Preparatory steps

This section presents preparatory steps important to collect and process relevant data in order to investigate the stakeholder role. As shown in the flow diagram this is one hand realized by the content analysis and on the other hand by the systematic literature search. Both are presented one after the other.

Starting point for the content analysis is processed by REPOPA data. This provides policy documents as well as interviews. The next paragraph presents the REPOPA data environment.

### 3.1.2.1 Identification of materials

According to the defined research questions this part marks the material and the field of relevant texts that are consulted to discover the stakeholder role and ongoing stakeholder indicators.

The content analysis makes use of already existing raw materials of REPOPA work package 1 policy documents and interviews. During the work package 1 phase, initially selected policy documents of different levels are appraised along 10 questions previously developed by the WP 1 leader and team members (Hämäläinen et al. 2013). These questions were constructed along the main research question "Does health enhancing physical activity policy making use research evidence in policy making processes?" and refer to the following themes:

1. The policy making process and included research evidence
2. Stakeholders, other actors and their interests
3. The needs to use research evidence
4. Starting point and conducted research evidence as baseline data
5. Cross-sector and multi-level approaches
6. Target groups and foundation through research evidence
7. Accountability
8. Evaluation
9. Sustainability
10. Other relevant matters with respect to research evidence

The aspects 2, 5 and 7 are highlighted in order to express the significance for this study. All are taken up later again. Returning to the REPOPA project, after the 10 themes are processed along included documents relevant interviewees such as experts and specialists from ministries, research institutes or administrative were asked for participation in order to learn about background motivations during policy development. Basically, the interview guide was based on the 10 questions as well. The main objective during this process was to gain a common understanding of HEPA policy making processes with respect to the use of research evidence and other kinds of information. Further aspects that remain unclear by analyzing the policy documents were queried there (Hämäläinen et al. 2013). The criteria to be a relevant interviewee for REPOPA WP 1 were defined as:

- A member policy planning group
- An actively and an influential participant in the policy process.

3 to 10 interviews per policy case were considered as appropriate by the general WP 1 leaders (Hämäläinen et al. 2013). Identified interviewees were invited to a conversation-like setting and asked open ended questions according to previously prepared themes. Space for additional questions or topics were given and the time was scheduled for 1 -1, 5 hours. All interviewees were informed about objectives and course of interview, gave their permission to participate and to audiotape the conversation. Interview outcomes merged into a report per policy case.

In total the catalog of answers built the base for investigating the interaction of different evidence usages in HEPA policies. Crude interview reports initially exist per country and are accessible via the REPOPA Sharepoint Homepage which is an interactive internet platform for the entire REPOPA consortium (REPOPA SharePoint 2013). The combined results of all participating countries are presented in an overall report (Hämäläinen et al. 2013) and are integrated in the entire REPOPA project.

### 3.1.2.2 Reduction of the REPOPA material for this thesis

The high amount of REPOPA data requires a reducing process to specify this thesis. In a first step the decision to only include the local policy level is made. This allows a constant perspective and is justified by the aim to develop an applicable set of stakeholder indicators that requires pilot-testing in a practical setting. In turn the access for pilot-testing is considered as realizable for the frame of this thesis and therefore selected. Outcomes can be extended to higher levels in later steps. For the purpose of this project out of 21 policies that were included in the WP 1, eight policy cases are included in the present analysis. This decision leads to the following sample.

### 3.1.2.3 Sampling

The conducted data refers to 5 countries namely Denmark, Italy, Romania, United Kingdom and the Netherlands from local policy level. As mentioned in the paragraph above also policy cases from the regional and national level are included in the WP 1. This thesis only refers to the local level. Along all 5 countries three Danish policy cases and one policy case from Italy, Romania, UK and the Netherlands were conducted in the WP 1 and therefore included into this thesis. A summary of each included local policy case can be read in the appendix. The following Table 3 indicates policies, policy types (cf. introduction) and available materials of documents and interviews that contribute to this thesis.

| Country | Policy | Policy type | Policy document existent in English | Interview report existent in English |
|---|---|---|---|---|
| Denmark | "Healthy Together" Odense | Programmatic | ✓ | ✓ |
| | "Long live Copenhagen" Copenhagen | Functional | ✓ | ✓ |
| | "The Sports and Physical Activity Policy" Esbjerg | Programmatic | ✓ | ✓ |
| Finland | "Lahti health enhancing physical activity strategy " | Programmatic | x | ✓ |
| Netherlands | "Youth on healthy weight" Jongeren Op Gezond Gewicht (JOGG) general plan, no specific municipality | Programmatic | ✓ | ✓ |
| Italy | "Municipaliadi" Rome | Programmatic | ✓ | x |
| Romania | "The protocol for organizing sport activities for children" Cluj County | Functional | ✓ | ✓ |
| UK | "Local Transport Plan" Herefordshire | Programmatic | ✓ | x |

**Table 3: Samples of work package 1 data**

The following Table 4 indicates the interviewees' characteristics that were included in the REPOPA

WP 1 interviews on the local level:

| Country | Policy name & City | Characteristics of interviewees |
|---|---|---|
| Denmark | "Healthy Together", Odense | 6 interviewees of different areas<br>1. Project manager<br>2. Health coordinator<br>3. Consultant, data coordination, evidence support<br>4. Combined health coordinator and consultant<br>5. Project manager, policy making phase, strategic decisions<br>6. Director of the Elderly and Handicapped Management, inter-sectoral work |
|  | "Long live Copenhagen" Copenhagen | 5 officials from the Health and Care Administration in Copenhagen<br>1. Involved in the policy planning ( in general but physical activity background knowledge)<br>2. Writing process, selection of initiatives, hearing and collaboration with other disciplines, evaluation (generalist)<br>3. The former project leader of the previous policy, now working in another sector ( generalist)<br>4. Working in tater policy development and implementation phase, selection of initiatives and reaching policy goals (pa specialist)<br>5. Writing and hearing process (generalist) |
|  | "The Sports and Physical Activity Policy", Esbjerg | 5 project members from different Departments and Boards<br>1. Department of Culture and Development;  project leader (pa knowledge)<br>2. Department of Culture and Development; consultant in developmental issues and processes<br>3. Department of Culture and Development; project member, competencies in implementation action<br>4. Culture and Leisure Board;  member of the steering group, politician, knowledge on content and development process<br>5. Department of Health and Prevention; coordinator of health initiatives on the local level, member of the internal review team |
| Finland | "Health enhancing physical activity strategy "Lahti | 3 employees from the municipal sector<br>1. Physical activity responsible for management of sport, education and culture in the municipality<br>2. Physical activity and knowledge in coordinating HEPA in the municipality<br>3. Health and social sector's welfare service knowledge in management of welfare services |
| Netherlands | Youth on healthy weight JOGG | 5 employees from different sectors<br>1. Scientist, expert in healthy lifestyle and chronic disease prevention<br>2. Program manager, associate lector Healthy City<br>3. Researcher, monitoring and evaluation of policies, previously worked for the National Institute for Health Promotion (NIGZ)<br>4. Program leader on the municipal level and experiences in obesity prevention on local levels<br>5. Project leader on municipal health service level: healthy schools, experiences with intersectoral work |
| Italy | "Municipaliadi" Rome 15th Municipality | Not present in English reports |
| Romania | "The protocol for organizing sport activities for children in Cluj County" | 3 employees, one of each partner Department responsible for the protocol<br>1. Representative from the Cluj County Council<br>2. Representative from the Cluj County School Inspectorate<br>3. Representative from the Cluj County Youth and Sports Department<br>No interviewee gave the permission to audiotape the interview. Therefore, notes were made |
| UK | Herefordshire  Local Transport Plan 2 | Not present in English reports |

**Table 4: Interview characteristics of local WP 1 cases**

The reports of document analysis and semi-structured interviews are rudimentary present but not completed to a final report. This also explains documents not present in English language (cf. Table 3). Only reports written in English build the basis for the present thesis.

Several fields beside the stakeholder aspects were tackled next to the analysis of the WP 1. Therefore, and with reference to the highlighted 3 of the total 10 themes are appraised in this thesis. The process of specific data reducing is now explained in the unitizing paragraph. This paragraph defines the processes important to receive relevant data to investigate the stakeholder role in HEPA policies.

### 3.1.2.4 Unitizing

The unitizing (e.g. Lamnek 1995 p. 208) serves to define text parts that entail needed information to investigate the stakeholder role in HEPA policies. The selection of relevant paragraphs is justified through the comprehensive REPOPA policy document analysis and interview guide. With regard to the total 10 themes presented above all parts that could entail stakeholder information are considered as appropriate. After careful examination three units are selected as appropriate and listed in Table 5. Bullet points highlight the main fields of interest that was aimed to be discovered in WP 1. For the present thesis this process is considered as a deductive procedure along already existing categories (Mayring 2008, p. 74).

| Unit | Policy document analysis | Interview phase |
|---|---|---|
| Stakeholders and actors | • Description of actors and stakeholders in the policy making process and their interests | • The characteristics of stakeholders included for policy making<br>• The way the stakeholders are involved<br>• Interests of stakeholders<br>• Attitudes related to research and other kinds of evidence |
| Cross-sector and multilevel approaches | • The presence of cross sector issues<br>• Benefits, facilitators, barriers or drawbacks | • Single or several sectors<br>• The kinds of involvement if there are various sectors apparent<br>• Benefits, facilitators, barriers or drawbacks of cross sector work |
| Accountability | • Who and why<br>• The amount of sectors accountable for the policy implementation, participation | • The chosen people accountable the policy and reasons<br>• The kind of accountable sectors (like environment, construction and planning, land use, health and social sector, education and culture or others) |

**Table 5: Relevant WP 1 units (REPOPA SharePoint 2013)**

In this thesis the 8 selected local policy cases are appraised along the units formed and presented in Table 5. Relevant data is transformed into tables. Along this a first reduction is possible. As a second reduction process all units are revised with respect to main implications for the stakeholder role. This step further reduces the unit's content and allows a greater overview.

Thereby, the awareness not to lose relevant information has been considered (Krippendorff 2013, p. 85).

Up to now, the procedure to gain relevant data from the REPOPA data is shown. As stated above, the context or analytic construct which surrounds the REPOPA material of document analysis and interviews represents an important part – it allows placing the content into the context and raises a comprehensive understanding that limits uncertainty (Krippendorff 2013 p. 42.). In more detail the literature can secure to understand the content and vice versa. Therefore it is necessary to move outside the local WP 1 data which is realized along a systematic literature research and the so called abductive inferring. The procedure is shown as follows.

### 3.1.3 Contextual analysis of current literature - abductive inferences

The following paragraph presents the methodology in order to end up with an analytical construct that maps the context respectively the reality to the best knowledge. A literature research serves the method to gain contextual material context. Outcome is an analytical construct beside the conducted REPOPA data (Krippendorff 2013 p. 42.). In addition a first entry into the theme of the stakeholder role and the current situation based on research evidence can be shown. The following paragraph presents applied procedures, defines selection and search strategies.

#### 3.1.3.1 Search strategies

The theme entry is realized through the field of knowledge translation. Mentioned in the introduction knowledge translation strategies build a tool to link cross-sectoral work with stakeholders and are therefore considered as relevant for the stakeholder role. The search strategy is based on a literature review from La Rocca et al. (2012) who dealt with knowledge transfer interventions in public health settings. Starting point for this literature work is the snowball method (Van Aken et al. 2012, p. 196) by which as much important studies as possible are identified. The following steps of systematic literature research and a hand search enriched the literature search for the present project (La Rocca et al. 2012). All procedures are explained in detail in the following. A flow diagram is presented in the appendix on page 95.

**a) Snowball method**

The snowball procedure adopted from the systematic review "The effectiveness of knowledge translation strategies used in public health" (La Rocca et al. 2012) is a basis for the applied method. This starting point revealed all five primary studies included in the review (LaRocca et al. 2012) as well as articles identified from reference lists of the literature. Results are shown in Figure 13

**b) Systematic literature research**

The systematic literature research was done by adopting the strategy conducted in La Rocca et al. (2012) (McKibbon et al. 2010) in combination with own content terms (see below). This process ensures to discover the role of stakeholder inclusion into health policy making processes but also in general public health settings. The structure of this step is based on the study by McKibbon et al. (2010) who investigated terms that discriminate knowledge translation articles from non-knowledge translation articles. Terms that highly (p<0,001) discriminate knowledge integration articles (with respect to application and theory related articles) are used and combined with own content terms (McKibbon et al. 2010). In detail, the PICO scheme (Schardt et al. 2007) (Patient – Intervention- Comparison- Outcome) strategy is chosen and adopted by linking terms within the row with "OR" and between columns with "AND". The following Table 6 indicates terms and connections.

| P | I | C | O |
|---|---|---|---|
| Stakeholder Policymaker Researcher | Use* (*=truncation) Change* Information Evaluation Implementation Utilization Adaption Quality Improvement Dissemination Complex intervention* Organizational innovation* Research utilization* Diffusion of innovation Opinion leader* Knowledge transfer Knowledge diffusion Knowledge utilization* Knowledge integration[3] | - | Evidence-informed decision making<br><br>Evidence-informed health policy making |

**Table 6: Search terms and classification**

The systematic literature research is conducted in May 15th 2013 and makes use of the databases PubMed, CINAHL and Cochrane Database of Systematic Reviews. The following Table 7 indicates the revealed results:

---

[3] Not suggested by McKibbon et al. (2010) but integrated. The justification emerges from the term operationalization.

|  | P | I | O | Combined (P and I and O) |
|---|---|---|---|---|
| Items found in Pubmed | 91389 | 3766583 | 178 | 19 |
| Items found in CINAHL | 9334 | 1050659 | 38 | 4 |
| Items found in Cochrane Database of Systematic Reviews | 6190 | 429186 | 41 | 23 |

**Table 7: Systematic literature research results**

**c) Hand search**

Furthermore, a hand search and generally accepted internet documents are consulted by using relevant online databases targeting knowledge translation (kt+)[4] and public health[5] (La Rocca et al. 2012). Here the terms stakeholders AND evidence-informed OR policy were used and shown in Table 8.

| Online databases | Items found |
|---|---|
| KT + | 44 |
| Public health | 50 |

**Table 8: Hand search results**

### 3.1.3.2 Selection strategy

Generally, the selection process is based on the study by La Rocca et al. (2012) and the included study by Mc Kibbon et al. (2010). The following in- and exclusion and inclusion criteria are defined in order to systematically select items.

### 3.1.3.3 Inclusion criteria

In general studies were considered appropriate if they target health practitioners and evidence use in public health settings and ideally but not necessarily in policy making processes on a municipal level. All kinds of study designs are accepted. Qualitative studies are included after content appraisal and the criteria "interventions or strategies not been covered by quantitative designs". This strategy is chosen to limit the amount of data to a defined frame. The inclusion of selected qualitative studies enables to illuminate contextual factors and stakeholder involvement information which are not considered in RCTs or other quantitative study designs (Hawe et al. 2004). The level of evidence is taken into account at any time.

---

[4] http://plus.mcmaster.ca/KT/AdvancedSearch.aspx
[5] http://www.nccmt.ca/public_health_plus/aal/1/list-eng.html

27

In total the systematic literature research yielded in 199 Items. The selection process is given in the flow diagram on page 25. After the literature is identified along the defined steps abstracts are read and appraised towards appropriateness with respect to the stakeholder role. If titles and abstracts are suitable full texts are attended. Finally included data is divided into either background information or main part information (Boyko et al. 2007): Background information serve the current state of general stakeholder considerations in public health settings represented in reports or similar documents. The main part information are empirical studies that serve data for the analytical stakeholder role.

According to McKibbon et al. (2010) search model 12 articles were identified for the main analytical construct. The following study designs are included: 1 meta-analysis, 6 randomized controlled trials, 1 time series analysis, 1 mixed method approach and 3 qualitative studies. These studies build the main analytical part to operationalize stakeholder role with reference to the literature. The remaining 14 papers represent the background information and comprise various study types such as reports and empirical studies. Here protocols are also included in order to enable outlines for studies currently in progress. All included background information is incorporated in the introduction to inform about the current stakeholder significance but substantiate the indicators as well.

### 3.1.3.4 Exclusion criteria

Letters, editorials and news were excluded (McKibbon et al. 2010). Also studies published before 2000 were excluded as the field of knowledge integration and stakeholder strategies in public health setting and especially due to evidence informed public health settings did not existed earlier (La Rocca et al. 2012). This meets the interest to appraise the current literature.

### 3.1.4 Hypotheses formation

In order to operationalize the stakeholder role along the above included data hypotheses serve as method to generate the knowledge. Through the given data both, deductive and inductive processes are applied (Bortz & Döring 2006, p. 31). This implies different starting points. As described by Bortz and Döring (2006) hypotheses for deductive procedures serve as base for empirical investigations whereas for inductive procedures the hypothesis is already a result (Bortz & Döring 2006, p. 31). This fact challenges the exact differentiation between methodology and results. Therefore, it is necessary to separate testing and exploratory parts from each other (Bortz & Döring 2006, p. 31). The starting point in this thesis initially applies generally accepted models and further enriches results along included literature and local WP 1 data. Executions are shown in the following.

### 3.1.5 Models to appraise included texts

Through explanations in the introduction it is already clear that the stakeholder role is not consequently defined so far. Thus, no standardized procedures on how to identify stakeholder characteristics exist. In order to systematically process the empirical identification in this thesis makes use of existing models. This procedure has its starting point in the "health in all policies" approach (Adelaide Statement 2010) as well as in the approach of knowledge translation for evidence informed policy-making (Lomas & Brown 2009, Lavis et al. 2003). Both approaches are already highlighted in the introduction. Accordingly policy makers are recommended to consider stakeholders and their knowledge in general and particularly through cross-sector and network interactions. Explicitly, active participation is recommended (Adelaide Statement 2010).

Therefore, it is consequent to incorporate these themes as hypotheses in order to operationalize the stakeholder role.

1. Stakeholders are necessary for health projects.
2. Diverse stakeholders are necessary for health projects.
3. Stakeholder knowledge can positively shape health projects.
4. Active stakeholder participation is important for health projects.

With reference to point number 3 stakeholder participation can be wide ranging. Implications therefore need to be understood in depth. In order to specify the degree of stakeholder participation the stage model of participation is consulted (Wright et al. 2008). Characteristics support to differentiate between participation degrees and facilitate to understand the stakeholder role and frame the stakeholder indicators presented later.

The original idea is based on the Ottawa Charter that calls for self-determination over one's own health and the keynote that sustainable changes require active involvement (WHO 2013a, Wright et al. 2008). Thus, the definition of participation goes beyond the pure attendance. It also means decision-making in key questions of a project development (Wright et al. 2008). As a reaction and to determine participation degrees the stage model of participation emerged. The following Figure 8 provides an overview.
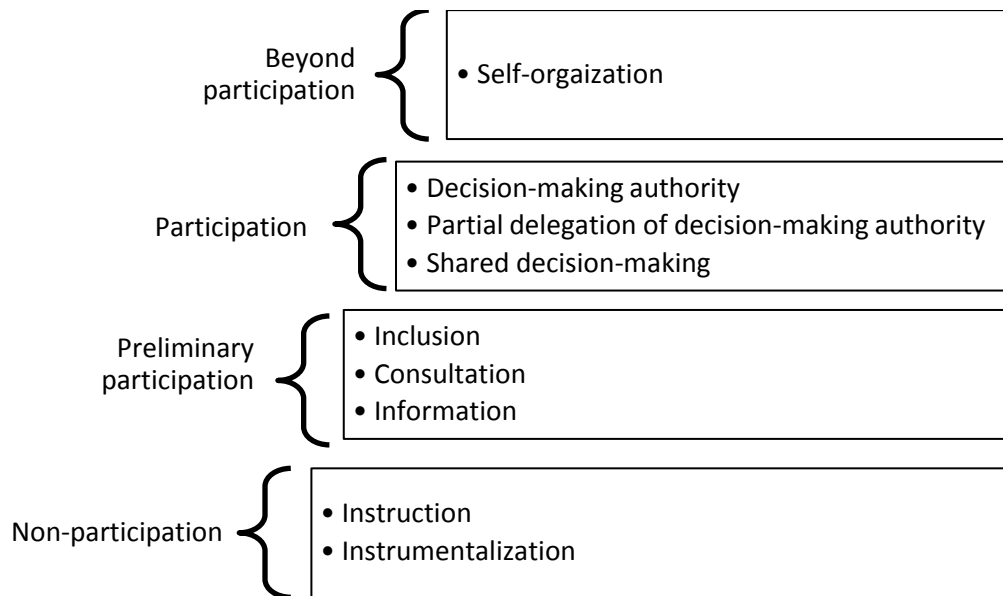
**Figure 8: The stage model of participation**

(Wright et al. 2008)

In the Figure 8 different degrees of participation are visible. Adapted to stakeholders in HEPA policies involvement can reach from no participation over preliminary stages of participation to actual involvement. With respect to this thesis, the stage model of participation is applied to determine the degree of stakeholder participation in HEPA policies. In order to apply the model in later processes of this thesis a deeper understanding of every stage is necessary and provided in the following Table 9.

| 9. | Self-organization | The target group is responsible for interventions or projects. All decision makers are target group members |
|---|---|---|
| 8. | Decision-making authority | Interventions or project parts are managed by the target group. |
| 7. | Partial delegation of decision power | Ownership rights ensure that target groups are involved in decision-making processes. Competences are limited to particular aspects. |
| 6. | Shared decision-making | Target groups were consulted when decision-making takes place. They take part in negotiations that can shape key questions but do not have exclusive decision-making power. |
| 5. | Inclusion | The target group or parts formally take part in but participation is not obligatory for decision-making processes. Often included groups sympathize with decision-makers opinions. |
| 4. | Consultation | The perspective of the target group is of interest. Hearings are held but the target group has no power to control whether their perspective has been considered in the policy. |
| 3. | Information | Decision-makers tell target groups about their agenda and provide reasons and basic information (e.g. the effect of physical activity on obesity |
| 2. | Instruction | The target group's situation has been notified as in need to be improved. Therefore, the agenda is to educate people in order to improve their situation. Due to the fact that they are disadvantaged they are not considered as capable for decision-making. |
| 1. | Instrumentalization | The interests of target groups are irrelevant. Decisions take place aside from the target group. If target groups are present at certain events they do not have any deeper information of the events purpose. |

**Table 9: Characteristics of participation stages (Wright et al. 2008)**

### 3.1.6 Advanced procedure

After the above stated hypotheses are elaborated the procedure between the analytical construct and the local WP 1 data allows exploring new fields that go beyond the existing theory. This process is considered as an inductive process and reveals 3 new dimensions that are to be appraised (Mayring 2008, p. 75). This part of methodological procedure simultaneously describes a first step towards the results (Bortz & Döring 2006, p. 31) - the origin of the themes 5 to 7 emerges out of the data itself and allows widening the perspective into unknown fields. Nevertheless, the focus refers to the question of „how to operationalize the stakeholder role". The themes allow developing further hypotheses that in turn enables taking a particular view on following results. Developed hypotheses are examined and classified as saturated enough for indicators inclusion or not saturated enough and therefore postponed for discussion and further recommendations. The following themes build the base for hypotheses development and are linked to the hypotheses 1 – 4 (p. 29).

### 3.1.7 Step 1 output

The output of step one reveals the operationalization of the stakeholder role (a) and a draft set of indicators (b). Details are presented in the following.

**a) The stakeholder role**

Along outcomes of content analysis and systematic literature research the stakeholder role can be investigated and operationalized. This is done by examining both content and context (cf. Figure 7). The aim is to operationalize the stakeholder role along the 7 hypotheses. The understanding, confirmation or rejection of each hypothesis builds the foundation for the first set of indicators (Russel et al. 2011). Mainly, this is done by quantifying findings. More frequent aspects contribute to comprehend the stakeholder role (Bortz & Döring 2006, p. 149 & p. 331). The following Figure 9 shows the basic idea of stakeholder operationalization. Hypotheses are elaborated in the results part.

**The stakeholder role operationalization**

| Hypothesis 1 |
| Hypothesis 2 |
| Hypothesis 3 |
| Hypothesis 4 |
| Explored Hypothesis 5 |
| Explored Hypothesis 6 |
| Explored Hypothesis 7 |
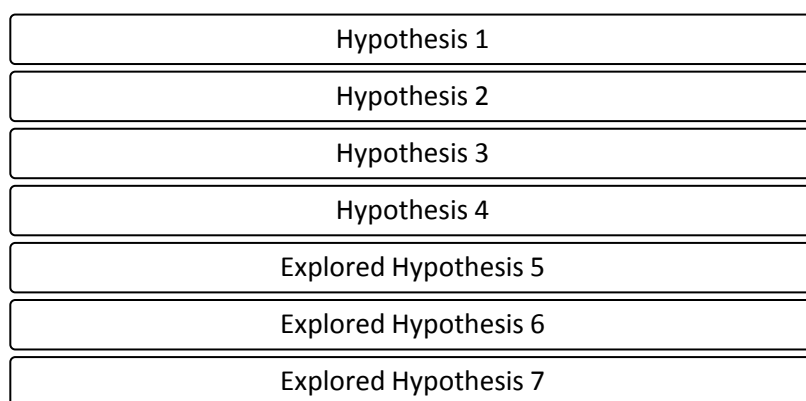
**Figure 9: The basic idea of the operationalization process**

As stated above the stakeholder units build the fundament for ongoing indicators development. Initially, each unit is revised according to the criteria to develop effective stakeholder indicators

for policy-making presented in Table 10 It is based on a development of community health indicators and modified towards the HEPA policy-making setting (Russel et al. 2011).

| Criteria for Stakeholder indicator selection | Definition |
|---|---|
| Linked to strategic policy requirements stated in relevant literature, REPOPA document analysis and interviews | The indicator needs to have an impact towards refinement of a policy action plan |
| Feasible by users | Project participants can influence a change (via advocacy, direct action or networks) |
| Measurable | The indicators need to be measurable in a qualitative or quantitative way. |
| Evidence based | The connection to existing research evidence is required and ensures that the indicator is linked to improve the policy-making |
| User-friendly | The indicators need to be easily understood and applicable |
| Reliable and valid | Scientific prerequisites of reliability (reproducibility) and validity (accuracy) need to be considered in each indicator |
| Sensitive and specific | The indicators needs to be susceptible for action and representative for the purpose to discover the stakeholder role |
| Comparable | A comparison over time and across HEPA policies needs to be possible |

**Table 10: Criteria to develop stakeholder indicators (adapted from Russel et al. 2011)**


**b) Draft stakeholder indicators**

Indicators that evaluate the stakeholder role are based on the previously identified 7 hypotheses. In order to systematically transform results of a) into meaningful indicators a "question skeleton" is developed that is filled with content later (Kirchhoff et al. 2003, p.26). The Table 11 indicates the crude version.

| Main question of unit… | | |
|---|---|---|
| o Yes    o No    o Not applicable | | |
| **If Yes:**<br>**Question to specify the unit…** | o Yes<br>o No<br>o Not applicable | |
| *Only applied if a second*<br>*specification is necessary* | If Yes:<br>Question to specify the unit… | o Yes<br>o No<br>o Not applicable |

**Table 11: First question skeleton**

Here, the decision to mainly construct closed question is made for reasons of comprehensiveness. The prerequisite for closed questions is sufficient knowledge to classify response items (Kirchhoff et al. 2003, p.20). Therefore, only saturated indicators can be included. In cases of results that do not lead into saturations (e.g. items that arise through inductive processes) generally accepted models are consulted to substantiate the indicators. This allows to include important aspects that otherwise would have been postponed for later research aims. Simultaneously, this goes along with the fact that the content can exceed the response items "yes, no or not applicable". This opens another question type also included in the evaluation tool. Here, response items of "yes, not and not applicable" are replaced with response items identified by consulted models or included data. The possibility is given to mark other aspects and specify them. The skeleton is presented along the Table 12.

| Main question of unit… |
|---|
| □ **Response a** |
| □ **Response b** |
| □ **Response c** |
| □ **Response d** |
| □ **Others, please specify:** _____ |

**Table 12: Second question skeleton**

The combinations of both question types shown in Table 11 and Table 12 are possible. In addition, an open question section for comments and remarks is processed in the end of the evaluation tool. In particular, questions aim to be understandable and not suggestive or stereotyped. The last question is formulated in an open manner in order to allow participants to express their thoughts. After all units are formed into questions the order is ranked from general to specific meaning (Kirchhoff et al. 2003, p.19ff).

Aspects that arise during the result analysis but remain unsaturated and not upgradeable along accepted models are transferred to the discussion and recommendation part as already explained in the paragraph of advanced procedures. (Kirchhoff et al. 2003, p.21ff).

## 3.2 Step 2 – consult

Based on the first step the preliminary stakeholder indicators are developed and distributed for consultancy. Graphically, this is already shown in Figure 6. A selection of potential reviewers is initially realized by the REPOPA study secretary who is equipped with a general REPOPA and specific WP1 overview. Furthermore, the contacted experts are asked to select additional experts from the local policy environment. This step is selected to enhance the tools' utilization in step 4. During the conducted timeframe from June 5th until June 28th 2013 the response rate was n = 10. 3 experts did not respond due to restricted time in their working processes. The following Table 13 indicates experts and characteristics that are included into the consultancy phase:

| Country | Experts characteristics |
|---|---|
| Romania | 1. REPOPA project participant and research assistant. PhD candidate in Public Health. Center for Health Policy and Public Health, Babeș-Bolyai University, Cluj Napoca |
| Italy | 2. REPOPA WP 4 leader, senior researcher at the National Research Council Institute for Research on Population and Social Policies, Professor for social communications at the University "Roma Tre" of Rome |
| Finland | 3. REPOPA WP 1 leader, project director for service innovations and senior researcher. National Institute for Welfare and Health |
| Netherlands | 4. REPOPA project participant and consultant at the Dutch Institute for Healthcare Improvement. |
| Denmark | 5. REPOPA coordinator, Professor of Public Health and Head of the Unit for Health Promotion Research, University of Southern Denmark<br>6. REPOPA project participant and post-doc, University of Southern Denmark<br>7. REPOPA secretary and research assistant, University of Southern Denmark<br>8. REPOPA project participant and post-doc, Institute of Sports Science and Clinical Biomechanics<br>9. REPOPA project participant, Associate Professor and Director of studies, Institute for Sports Science and Clinical Biomechanics |
| Germany | 10. Sağlık coordinator, Professor for Nutrition and Health Psychology, University of applied Sciences Hamburg |

**Table 13: Characteristics of research experts**

The consultancy process is based on the framework by Russel et al. (2011) but modified to the present thesis. The following figure indicates the requested appraisal tasks. Participants are invited to qualitatively comment on the first indicators draft with respect to:

- Relevance
- Wording
- Missing's
- Unnecessary indicators
- Other aspects


### 3.2.1 Step 2 output

With references to Figure 6 the output of step 2 merges into a combined output of consultancy and validation. The next step is possible after the comments have been received.

## 3.3 Step 3 – validate

The validation step contains modifications and revisions with respect to the previous consultancy step 2 (Russel et al. 2011). This directly leads to the step 3 output.

### 3.3.1 Step 3 output a)

The combined output of step 2 and 3 is a set of revised stakeholder indicators to evaluate the stakeholder role in HEPA policies to the best knowledge. At this stage the tool is mainly revised from the scientific pole. Returning to the aim to develop a tool that can be used for both – research and practice - a loop of step 2 and 3 is initiated and contemplates an additional consultancy. Therefore, the revised version is sent to practitioners who were identified by the experts proposed in step 2. This ensures a completion of indicators. The following Table 14 highlights included experts and key characteristics.

| Country | Experts characteristics |
|---------|-------------------------|
| Denmark | 1. Project leader on the Sports and physical activity policy of Esbjerg Municipality |
| Italy | 2. Practitioner of the Local Health Agency (Department of Prevention) of Verona |
| Germany | 3. Sağlık project participant and research assistant, Hamburg University of Applied Sciences <br> 4. Sağlık project participant and research assistant Hamburg University of Applied Sciences |

**Table 14: Characteristics of policy practitioner experts**

### 3.3.2 Step 3 output b)

Again, the evaluation tool and included stakeholder indicators are revised and modified with respect to the expert's comments. Thereby, backward loops into the collected data of content and context are made (Krippendorff 2013, p. 85 & p. 354ff.). The output represents a tool that gains applicability according to the reviewer's annotations that come from the practical field.

After the second revision the stakeholder indicators are pilot-tested along the German project SAĞLIK. This part of utilization allows further deepening the applicability in practice, to identify gaps and further revision as well as to give recommendations for future work (Russel et al. 2011). Mainly the pilot-testing is done in collaboration with the German experts presented in Table 14. The implementation is shown in the next step.

## 3.4 Step 4 – utilize

The pilot-testing is realized by the project SAĞLIK (Turkish = health). To understand the field of utilization the project is introduced briefly in the following paragraph.

### 3.4.1 SAĞLIK - the field of application

Sağlık is a three year local project (2010-2013) that aims to encourage healthy nutrition, physical activity as well as to increase quality of life and social participation for elderly Turkish migrants in urban districts of Hamburg, Germany. A community-based health promotion approach is selected. Especially, equity aspects are considered by targeting Turkish migrants above the age of 60 who live in disadvantaged neighborhoods. The basic thought is to establish social support through networks of target groups and stakeholders in order to promote the health of the target group (Westenhöfer et al. 2009). The project is funded by the federal ministry of Education and Research and initiated by the Hamburg University of Applied Sciences. It is processed along the three phases presented in Table 15:

| Project phase | Aims | Activities |
|---|---|---|
| 1. Needs analysis | - An overview of nutrition, physical activity and social participation structures with respect to the target group.<br>- Investigation of existing and needed resources in districts with a high migration density | - Interviews with respect to health, fitness, nutrition etc.<br>- Investigation of social participation, neighborhood inspections<br>- Problem-based semi structured interviews<br>- Examination of already existing health promotion projects |
| The phase 1 build the fundament for ongoing interventions | | |
| 2. Intervention | - Improvements in supply structures and an increase of supply and utilization | - To raise awareness and participation in already existing projects<br>- Multi-level collaboration<br>- Participative intervention development<br>- Health mediators<br>- Training for general practitioners<br>- Public relations |
| 3. Evaluation and transfer | - Improvements with respect to lessons learned, recommendations, distribution and application in other regions or sectors | - Process evaluation in collaboration with cooperation partners<br>- Outcome evaluation of quality of life, physical activity, nutrition and health behavior, pre-post queries<br>- Transfer in forms of recommendations to networks<br>- publications |

**Table 15: Overview of Sağlık project phases**

(Westenhöfer et al. 2009)

According to the policy definition (Schmid et al. 2006) already mentioned in the introduction the above presented Sağlık project is considered as appropriate because of the following reasons:

- ✓ Sağlık provides an organizing structure and guidance for collective and individual behavior.
- ✓ It is initially defined as a legislative but planned for regulatory action taken by urban districts in Hamburg in collaboration with the city, nongovernmental organizations and the target group.
- ✓ The policy type according to Bell (2009) can be categorized as population based and according to Lavis et al. (2002) as a delivery and program policy.

### 3.4.2 Step 4 outcome

A personal contact with two Sağlık experts has been established in order to test the stakeholder indicators for identification of further gaps and needs. Here, the tool is examined in an interview-like setting. First, every indicator is queried and afterwards discussed towards applicability and practicability. Moreover, recommendations are requested that could enhance the quality of the stakeholder indicators (Russel et al. 2011). Altogether, the step of utilization leads into the final revision of stakeholder indicators. The outcome aims to create a meaningful and applicable tool that reflects the stakeholder role to the current best knowledge.

As already stated in the introduction indicators are not a fixed product and require advanced continuity (European Commission 2013). Furthermore, the present stakeholder indicators are to be seen as a process step which needs to be revised and improved over time (Canadian Institute for Health Information 1999). Therefore, collaboration and cooperation between health and other organizations that use and develop this tool are appreciated at any time.

The following part presents the results.

# 4. Results

The procedure shown in the method part allows the identification of the current stakeholder role - results are now presented. Initially, the stakeholder role and a crude draft of stakeholder indicators are shown.

## 4.1 The stakeholder role – results from the information gathering

The following part serves as combined results of context and local WP 1 data. 4 secondary hypotheses are tested and 3 additional hypotheses are explored in order to investigate the primary research question: "What is the stakeholder role in HEPA policies?" (cf. methods, p. 28). An overview is given in Figure 10.

**Operationalization of the stakeholder role in HEPA policies**

*Hypotheses:*
•Stakeholders are necessary for health prohects
•Diverse stakeholders are necessary for health projects
•Stakeholder knowledge can positively shape health projects
•Active stakeholder participation is important for health projects

*Themes to explore hypotheses:*
•Stakeholder identification
•Timing for stakeholder inclusion
•Stakeholders as mediators between research and practice
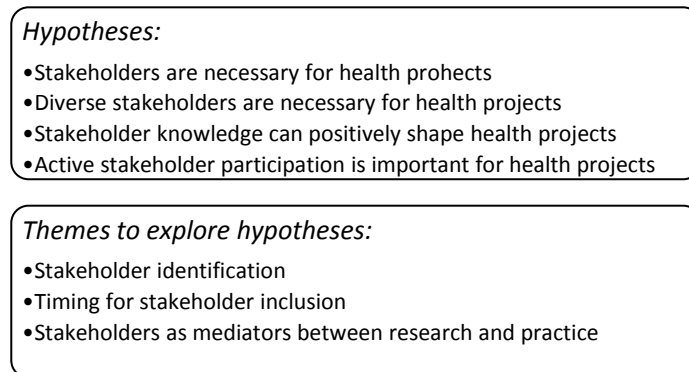
Figure 10: Hypotheses to operationalize the stakeholder role

First, every hypothesis derived from generally accepted models (cf. methods). The aim of this step is to study every hypothesis by rejecting or confirming every theme. Second, new hypotheses which emerged from local WP 1 cases and included literature are explored and elaborated in first approaches.

### 4.1.1 Stakeholders are necessary for health projects

With reference to the introduction reasons to point out the importance of stakeholders in policy making are already clear. The current literature highlights the need to raise external stakeholder contribution in policy-making (Adelaide Statement 2010, Lavis et al. 2003). Thus, first implications

of stakeholders' significance for HEPA policies are initiated already. The investigation of stakeholder significances in the literature and content analyses reveals the following results.

With regard to the literature 8 out of 12 included studies express a stakeholder necessity in health projects (Beeckmann et al. 2012, Jack et al. 2011, Barwick et al. 2009, Dobbins et al. 2009, Gagliardi et al. 2007, Kothari et al. 2005, Di Noia et al. 2003, and Stone et al. 2002). Generally, this is stated by the need to involve different partners in prevention program development (Di Noia et al. 2003). In more detail, this is underlined by the advantage to discover different perspectives as soon as other stakeholders are involved (Dobbins et al. 2009, Stone et al. 2002). Therefore, stakeholders are appreciated by the majority of authors. Their involvement meets the "best practice" approach of evidence informed decision-making (Beeckmann et al. 2012, Jack et al. 2011, Dobbins et al. 2009, Barwick et al. 2009, Gagliardi et al. 2007, Kothari et al. 2005).

In order to regard the stakeholder necessity from the local WP 1 point of view, principally, data confirms the stakeholders' significance in HEPA policies (REPOPA SharePoint 2013). Even though the information appears in different richness 2 documents point a general stakeholder importance (Netherlands (Net), Lathi (Lat)) whereas another 4 express details why stakeholders are of special significance. These details refer to benefits that external stakeholder input and dialogue entail: different points of views were considered as "very supportive and quality enhancing" because relevant partners support to uncover necessary themes (Copenhagen (Cop)). At the same time stakeholders help to discover the policies meaningfulness and support to increase the recognition of the policy (Cop, Esbjerg (Esb)). Roles of external stakeholders were seen as contributors that inspire the project group (Esb) also with respect to formulate goals (Herefordshire (Her)).

In contrast to cases who underline the importance of stakeholders limited stakeholder significances are stated as well. Accordingly, policy-makers regard external stakeholders as partners who are less significant for the policy development but interesting for later implementation phases (Odense (Od)). Furthermore, two cases formally included stakeholders without any identifiable additional values (Rome (Ro), Cluj County (Clu)). Political interests were seen as main arguments that trigger the policy process (Clu, Od).

Overall, the majority of both data sources highlight that stakeholders are significant for health projects which leads to the confirmation of the first hypothesis. In turn, this justifies including the unit into the emerging set of stakeholder indicators.

The following Table 16 quantifies cases (Bortz & Döring 2006, p. 149 & 331) that state stakeholder necessity and summarizes reasons which are given in the above text. The reducing builds the basic

framework for the indicator development and rudimentary response items. The advanced indicator is processed through experts and is presented in the chapter of consultancy and validation.

| Stakeholder necessity | | | |
|---|---|---|---|
| in the literature | | in local WP 1 data | |
| Significance stated | Significance not identified | Significance stated | Significance not identified |
| n=9 | n=3 | n=6 | n=2 |
| Justification of stakeholder necessity<br><br>- meets the best practice approach<br>- multiple perspectives [1] | | Justification of stakeholder necessity<br><br>- multiple perspectives[1]<br>- uncover and inspire relevant themes (3x)[2]<br>- increase recognition (2x)[3]<br>- goal formulation | |
| Reducing through quantification:<br><br>- perspectives[1]<br><br>- theme relevance[2]<br><br>- recognition[3] | | | |

**Table 16: Quantification of stakeholder necessities**

### 4.1.2 Diverse stakeholders are necessary for health projects

Already shown in the health in all policies approach and the current recommendations for HEPA policies stakeholders' diversity unravels different, valuable perspectives by means of increasing the project quality (Adelaide Statement 2010, Sallis & Glanz 2009, Kahn et al. 2002).

Initially, the included data is appraised towards the kind of stakeholders that occur most often in order to test whether a diverse set of relevant stakeholders is also relevant for HEPA policies (Bortz & Döring 2006, p. 149, 331). This step aims testing the diversity and at the same time allows gaining an overview of included stakeholders in current health projects. Moreover, through the degree of cross-sector and multi-level work stakeholder considerations can be identified. If findings confirm diversity relevance main arguments are reduced into crude indicators.

With regard to the literature the inclusion of multiple professions is meant to enable comprehensiveness. Here, especially the inclusion of more than one expertise is highlighted as it discloses diverse perspectives (Satterfield et al.2009, Kothari et al. 2005, Beeckmann et al. 2012). Thus, the literature confirms the above approached keynote (Adelaide Statement 2010, Sallis & Glanz 2009, Kahn et al. 2002). Further, an additional dimension is raised by multiple authors highlighting not only quantity aspects but the proportion or mixture of different, relevant

participants. Accordingly, a diverse stakeholder group can be regarded as an indicator for a productive working environment (Boyko et al. 2012, Carcasson 2009, Wade 2004, Jack et al. 2011).

Up to now this justifies considering diversity aspects and leads on to the contemplation of local WP 1 cases.

The diversity of stakeholders ideally included in a policy-making process has been investigated in the local WP 1 data as well and covers a range of statements. One case states that there is a need to structure the policy-making process as a closed process with only selected members from few disciplines (Od). According to this case, diversity aspects with regard to external stakeholders do not find strong confirmation. In other cases the collaboration with more stakeholders during the implementation phase is highly desired as this ensures a realistic policy (Cop, Esb, Lat).

Nevertheless, a turn exists were too many stakeholder groups combined in one policy-making process reflects a drawback. The inclusion of as much stakeholders as possible impedes the process and resulted in difficult and prolonged phases (Esb). Dependent on the purpose and the policy making phase it can be effective to limit the amount of participants to a defined group (Esb, Cop).

Summarized, the general need to consider a diverse set of stakeholders in projects can be identified. This is confirmed by both, the literature and WP 1 data. Nevertheless, at the base of the knowledge gained so far it is consequent to include a stakeholder indicator that assesses stakeholder diversity. Thus, the kinds of actors who occur in health projects build the basis to understand the above raised dimension. The quantification in Table 17 leads to the indicator development.

| Diversity of cooperation partners | |
| --- | --- |
| in the literature | in local WP 1 data |
| Community agencies and policy decision makers (Di Noia 2003, Gagliardi et al. 2007, Dobbins et al. 2004) | City Departments (in total 16x)<br>- City & Culture (2x)<br>- Children and Youth (5x)<br>- Health and Social affairs (3x)<br>- Food<br>- Labor<br>- Sports<br>- Protection and Prevention<br>- Technical environment<br>- Finance |
| | Political parties (4x) |
| | Decision makers from the national level (3x) |
| Researcher, clinical manager (Gagliardi et al. 2007, Dobbins et al. 2004). | Research institutes (9x)<br>- University (4x)<br>- Public Health & Prevention (3x)<br>- Health economic research<br>- School of architecture |
| | Sport & Fitness clubs (7x) |
| Schools (Di Noia 2003) | Schools (7x) |
| Public health units (Dobbins 2009, Kothari et al. 2005, Dobbins et al. 2004, Jack et al. 2011) | Health promotion facilities (2x) |
| Nursing home residents and health care professionals (Beeckmann et al. 2012) | Target groups (2x)<br>- citizens |
| Reducing of actors occurring most often:<br>- National decision-makers<br>- Political parties<br>- City Departments (e.g. Health)<br>- Service provider (e.g. Hospitals)<br>- Research institutes (e.g. Universities)<br>- Schools<br>- Health promotion facilities<br>- Sport clubs<br>- Target groups (e.g. children, elderly)<br>- Others | |

Table 17: Quantification of cooperation partners and diversities

Moreover, diversity aspects can be identified along cross-sector and multilevel approaches already justified in the introduction (Adelaide Statement 2010, Daugbjerg et al. 2009, Bornstein et al. 2009). Thus, the stakeholders' presence - on different levels or in collaboration between different sectors - can disclose stakeholder diversity as well. Through the next paragraph details are elaborated - first about cross-sector and second about multi-level work in included literature and local WP 1 data. Findings contribute to further test the diversity hypothesis.

**Cross-sector work**

In the literature two studies highlight the necessity to collaborate between disciplines from different sectors. Here, the general recommendation to consider collaboration across partners and organizations are stated (Stone et al. 2002, Barwick et al. 2009).

According to the local WP 1 cases 7 out of 8 implemented their policies across sectors. Thus, stakeholders - as representatives from different sectors- take an inherent part in local policy practice. The kind of sectors range from governmental – (Od, Cop, Lat, Net, Clu) to non-governmental sectors (Od, Cop, Net, Ro) and can exceed the health sector (Esb).

With regard to accompanied benefits the share of experiences and competencies are mentioned that allows space for new networks and greater efficiency (Esb, Ode, Clu). Particularly, new ways of thinking, increased learning effects (such as evidence based working styles) and support for challenges outside own expertise areas are stated (Esb, Od, Clu. Lat).

Beside positive aspects that are connected to cross-sector work also barriers appear in these processes. Crucial drawbacks can be distinguished in areas of resource scarcity, competing interests and organizational challenges (Od, Cop, Lat, Net).

The next Table 18 serves as summary.

| Collaboration with stakeholders from other sectors | |
|---|---|
| In the literature | In local WP 1 data |
| n=3 | N=8 |

**Table 18: Quantification of cross-sector collaboration**

Similar to cross-sector collaboration also multi-level work can disclose connections interesting to understand the degree of stakeholder diversity in HEPA policies. Already stated in the introduction part projects that are implemented on different levels are recommended (Kahn et al. 2002, Sallis & Glanz 2009). This justifies taking a closer look into both, literature and local WP 1 cases. The following chapter presents findings.

**Multi-level work**

With regard to the literature three studies state multi-level aspects. All confirm multi-level collaboration as one prerequisite for general working processes and a warrant for successful, high quality interventions (Jack et al. 2011, Barwick et al. 2009, Dobbins et al. 2004). Details are given by Jack et al. (2011) who structure their studies across levels in order to regard their decision making process more differentiated and multifaceted. A similar purpose is pursued by Dobbins et

al. (2004) who included health policy makers from provincial and federal levels to achieve greater applicability. Thus, the literature, even though to a limited extend, discloses valuable aspects through the inclusion of multiple levels in health projects. This understanding leads to the need to compare it with multi-level collaboration in local WP 1 cases.

In comparison to the cross-sector work which is implemented in the majority of the included local WP 1 data only few multi-level considerations are taken into account. Three cases state the connection with different levels (Cop, Cluj, Net). The kind of content differs greatly between these cases. Thus, the Copenhagen policy case discloses benefits and reasons for considering multi-level collaboration whereas the Dutch and Romanian cases solely disclose the incorporation of different levels without stating detailed information. Major findings are now summarized.

Already mentioned above the City of Copenhagen stated that multilevel approaches support to reach better health outcomes and facilitates the access to different experts. – This statement is in line with the keynote of investigated literature findings.

Evidence that approaches are connected to different levels is shown by the following two cases. The Dutch policy intends to contact partners on national and local level in the phase of policy development. Further, the policy of Cluj County plans to distribute performances reports to the national level. More detailed information is not identifiable.

Summarized, multi-level work is disclosed to a limited extend by both, the literature and local WP 1 cases. Automatically, this unravels discrepancies between the recommendations stated in the introduction (Sallis & Glanz 2009, Kahn et al. 2002) and the above presented results. This only allows to partly confirming the hypothesis. As far as it can be identified multi-level work can positively contribute to health projects (Jack et al. 2011, Barwick et al. 2009, Dobbins et al. 2004, Cop). At the same time regular multi-level connections do not exist as a solid component. The Table 19 presents the quantification of multi-level results that leads on the one hand into a crude stakeholder indicator and on the other hand the need to saturate this dimension in future steps (Bortz & Döring 2006, p. 330).

| Collaboration with stakeholders from other levels | |
|---|---|
| in the literature | in local WP 1 data |
| n=3 | n=3 |

**Table 19: Quantification of multi-level collaborations**

### 4.1.3 Stakeholder knowledge can positively shape health projects

Based on the approach of knowledge transfer strategies (CIHR 2012, WHO 2005) and evidence informed policy-making (Lavis et al. 2003) different forms of expertise can enhance the policy's quality. This is already confirmed in the introduction part. The present paragraph elaborates the significance of knowledge which is encompassed by stakeholders - first along the literature and second along the WP 1 local cases.

The literature justifies knowledge exchange among different disciplines and confirms to consult different kinds of knowledge (Gagliardi et al. 2007, Kothari et al. 2005). Accordingly, the integration of knowledge through a range of participants strengthens capacity and facilitates to close the gap between theory and practice (Jack et al. 2011, Barwick et al. 2009). As already mentioned in the introduction, colloquial knowledge such as past experiences and practical knowledge are stated as factors that impact decisions and procedures (Dobbins et al. 2009, Jack et al. 2011). Therefore, knowledge management and a platform for knowledge exchange between stakeholders are important to provide (Dobbins et al. 2009).

According to the WP 1 cases knowledge which is uncovered through different stakeholders is one reason for including various experts. It is seen as the infrastructure and support when it comes to the implementation of interventions (Net). The form that is stated by most of the policy cases is the knowledge based on experiences (Net, Lat, Od, Esb, Cop, Clu). Previous experiences, practical as well as local knowledge and know-how mainly shape the policy. They are mentioned as "essential for the success" (Net, Esb). Furthermore expertise was stated as a strategic direction which was ensured by different experts. As an answer various cooperation partners were included in the policy making process (Lat). Specialist's opinions, past experiences and issues that arise during practical work were given a higher priority than research evidence (Lat, Clu). In addition, hierarchies appear to play a role as well. With respect to powerful stakeholders (e.g. the National Board of Health) knowledge is trusted and believed to contribute with significant content and state of the art evidence (Od). The Dutch policy concept guides the stakeholder knowledge along training tracks. According to their vision, it appears to be important to train people involved in the policy-making. This increases the understanding of processes such as development or evaluation that in turn can enhance the policies' quality. Earlier experiences are seen as advantageous (Net).

In summary the facet "stakeholder knowledge" underlines that cooperation partners do contribute with additional and relevant knowledge that increases the policy's success. Therefore, the hypothesis leads to the operationalization and indicator development. Nevertheless, the results are not saturated enough to raise a common ground for response items. Only aspects of

experiences and scientific knowledge can be identified by the majority of included data. Therefore, and according to the procedure in cases of unsaturated themes an additional model is consulted (cf. methods p. 29). Again, the stage model of participation is referenced. Here, Wright et al. (2008) particularly underline the aspects of local knowledge and target group knowledge as necessary prerequisites for participation. The following Table 20 reduces the above stated results into the indicator.

| Integration of stakeholder knowledge | |
| --- | --- |
| in the literature | in local WP 1 data |
| - General importance identified (12x)<br>- Knowledge kinds:<br>- Experiences (2x)<br>- Scientific knowledge (12x) | - General importance identified (7x)<br>- Knowledge kinds:<br>- Local knowledge (2x)<br>- Past experiences and specialists opinions (6x)<br>- Connected to higher positions (1x)<br>- Gained through training (1x) |
| - Reducing:<br>- Previous experiences (data)<br>- Scientific knowledge (data)<br>- Local knowledge (Wright et al. 2008)<br>- Knowledge of the target group (Wright et al. 2008) | |

**Table 20: Quantification of knowledge integration**


### 4.1.4 Active stakeholder participation is important for health projects

Participation is an issue already raised in the introduction part – mainly by the approach on health in all policies and supportive by the stage model of participation (Adelaide Statement 2010, Wright et al. 2007). Relevant background information and approaches of knowledge translation provide evidence that active participation in terms of two-way collaboration is the most successful strategy (La Rocca et al. 2012, CIHR 2012).

The classification system of Wright et al. (2007) is applied to identify participation degrees in order to understand actual stages of participation with respect to included data sources. Along the 9 steps it is possible to categorize and determine the degree of participation for each included case (Wright et al. 2007). On the one hand it supports to present current participation stages of included data that leads to the hypothesis elaboration, on the other hand the classification system facilitates to develop meaningful indicators and response items. The following Table 21 presents the results of context and content analyses with respect to participation degrees.

| Stages of participation | Stages | | Classification of included literature | Classification of included local WP 1 cases |
|---|---|---|---|---|
| Beyond participation | 9 | Self-organization | | |
| Participation | 8 | Decision-making authority | | |
| | 7 | Partial delegation of decision-making authority | | |
| | 6 | Shared decision-making | A one day workshop on research processes with methods such as shared prioritization on issues, planning and implementation was chosen to include stakeholders into report making. The active participation of stakeholders resulted into immediate impacts. The perceived relevance, the feasibility, the recognition of different perspectives and the importance to create a common collaboration ground could be increased. In addition, authors were interested whether the active workshop could inspire participants to independently enhance their participation to stages of self-organization. Here, the researchers observed whether steering groups, research groups, proposals or funding were initiated based on the new knowledge gained through that workshop. These outcomes did not occur. | In the case of Esbjerg municipality stakeholder participation was voluntary but appreciated. External stakeholder knowledge and preferences were considered as a possibility to shape the policy direction. Therefore, discussions in smaller groups of internal and external stakeholders were established to point out project tendencies. As an example, the public sports and activity club fought for 5 workshops through the policy making process which were accepted. This highlights the participation of external stakeholders in Esbjerg. Further, the municipality conducted the Danish Institute of Sport Studies as experts with respect to research expertise. According to an interviewee, this did not lead into policy content.<br>In general, outcomes were due to a specified policy direction. Moreover, main tendencies relevant for the policy process could be increased. At the same time the municipality had a high interest in keeping certain stakeholders satisfied. Therefore, interested stakeholders are encouraged to shape the policy. This led to the fact that mainly young and already physically active people were targeted by the policy. No special focus is set on physically inactive people and equity considerations were neglected. |

| | | | | |
|---|---|---|---|---|
| | 5 | Inclusion | Kothari et al. (2005) included stakeholders into the process of report development. Outcomes yielded into a greater understanding of research content and importance. Far reaching outcomes such as increased research utilization did not take place (Kothari et al. 2005). | The city of Copenhagen stated the attempt to balance and equally distribute the amount of influence by taking other stakeholders into account. This was done by hearing a high amount of local and stakeholder knowledge. Some suggestions such as the input from researchers influenced the policy development. However, the estimated impact was stated as "small or very small" The degree of participation was dependent on whether suggestions were in line with the overall processes. Nevertheless, the greater the expertise in certain topics the greater the amount of participation. |
| Preliminary participation | 4 | Consultation | Hanbury et al. (2009) take advantages of the study design. Through the time series analysis is was possible to build each step upon knowledge gained in the step before. That takes stakeholder perceptions into account. | With respect to Lathis policy three sectors are meant to share the responsibility, coordination and tasks. However, no reports that ensure the implementation are obligatory and therefore clear roles do not exist. Whether different perspectives are considered in policy results remain unclear. |
| | | | Similarly, Beeckmann et al. (2012) structured their RCT by creating interactive education workshops which also allow the inclusion of stakeholder perceptions. Nevertheless, the interventions itself were developed by the researchers. | In the city of Cluj County stakeholders beside the direct policy-makers (school and sport department) were consulted and queried towards their expertise. |
| | | | Dobbins et al. (2004) established focus groups and included the target group. The purpose was to discover the target group's preferences with respect to develop knowledge transfer strategies that in turn should raise research uptake for public health projects. | |
| | 3 | Information | Di Noia et al. (2003) tailored their interventions (information distribution) towards the needs of their target groups. This is shown in adapted contents for different settings and different target groups. Further, items for pre and post measurements were tailored towards their included stakeholders. Nevertheless, efforts were rather one-directional - a shared development did not take place. | |

| Non-participation | 2 | Instruction | Barwick et al. (2008) offered education for their target group in order to create common knowledge and exchange. However, the intervention was designed by the researchers. The target group was considered as attendances. | |
| | | | Another 3 studies followed similar strategies. Dobbins et al. (2009), Fortselund et al. (2003) and Buchan et al. (2009) address the need to increase research evidence in polices among policy-makers, general practitioners and physicians. Therefore, they offer and test possibilities to facilitate research to their target group. However, the degree of participation does not go beyond the stage of education. Influencing the intervention was not possible for participants. | |
| | 1 | Instrumentalization | | Odense regards their policy process as a closed process and as a politician's affair with few stakeholders outside the politics. The involved stakeholders were decided by the politicians. No discussion about other stakeholder inclusions is appreciated. |
| Other notifications | | | Due to the study design the Meta-analysis by Stone et al. (2002) as well as the qualitative study by Jack et al. (2011) along interviews did not have any intervention. Therefore, it is not possible to determine the degree of participation. | Stakeholder participation was not identifiable along the other 3 cases (Net, Ro, Her). Considerations can be made whether no participation took place or was not mentioned in any documents or interviews. |

**Table 21: Stages of participation of included data**

In summary the following Table 22 classifies included literature and local WP 1 cases into stages of participation.

| | Stage of participation | in the literature | in local WP 1 data |
|---|---|---|---|
| Participation | 6. Shared decision-making | 1 | 1 |
| Preliminary participation | 5. Inclusion | 1 | 1 |
| | 4. Consultation | 3 | 2 |
| | 3. Information | 1 | |
| Non-participation | 2. Instruction | 2 | |
| | 1. Instrumentalization | | 1 |

**Table 22: Quantification of stages of participation**

Along the Table 22 mainly preliminary stages of participation as well as non-participation are apparent. 2 cases made use of efforts that can be classified as participation. However, shared decision-making is considered as the lowest stage of actual participation. Higher stages such as the partial delegation or decision-making authority are not identifiable.

Thus, the stakeholder role with respect to participation in included data can be expressed as mainly preliminary participative. Consequently the hypothesis needs to be reformulated:

*Active stakeholder participation needs to be promoted*

Pointing out participation degrees in future policies can raise the awareness to enhance the participation that in turn raises the change to create sustainable policies (Wright et al. 2007). Response items for an initial indicator are given along the stage model of participation (Wright et al. 2007) which is drafted in the following Table 23.

| Involvement of collaboration partners in the project development |
|---|
| - Information about the project are distributed |
| - Viewpoints are of interest |
| - Involved in decisions. Presence is not a prerequisite. |
| - A voice in major project decisions |
| - Partly responsible for project decisions |
| - Responsible for all project decisions |
| - No participation |

**Table 23: Response items along the stage model of participation (cf. Wright et al. 2007)**

In the next part the identification of new themes that emerge out of the data itself are presented. The main result is the construction of the hypothesis itself (Bortz & Döring 2006, p. 31). As far as

data indicates first meaningful findings items are included into the evaluation tool as well (cf. methods, p. 31).

### 4.1.5 Stakeholder identification

With regard to the context especially the general background informs about the necessity to considerably select relevant stakeholders - to gain valuable contribution and input. The method to identify stakeholders and the way how they are represented can influence the policy process. Recommended by Lavis et al. (2009) and USEPA (2001) a careful selection and a balanced and fair stakeholder distribution are crucial. Accordingly the outcome is a representative group with different interests but also different forms of knowledge (Hunt & Thomson 2002). With regard to recommendations - starting from the scientific perspective - tools for stakeholder analyses exist (Brugha & Varvasovsky 2000, Schmeer 1999) that highlights the awareness to strategically identify stakeholders. A concrete hypothesis, however, is unknown at this stage. Therefore questions arise: "Are existing tools applied on a regular base?  And if not, what is the most applicable strategy for identifying stakeholders?" From this background it is sensible to gain a deeper understanding along included data in order to explore a hypothesis that can be tested in advanced steps. The following paragraph presents the kind of stakeholder identifications applied in both, the literature and local WP 1 cases.

In the contextual literature different identification strategies are applied – also with regard to their study designs. Purposeful sampling through experts (Jack et al. 2011, DiNoia et al. 2003, Gagliardi et al. 2007, Dobbins et al. 2004, Kothari et al. 2005), randomized selection (Buchan et al. 2009, Dobbins et al. 2009, Beeckmann et al. 2012) but also the invitation of as many experts as possible with the aim to gain relevant participants (Fortselund et al. 2003, Hanbury et al. 2009, Barwick et al. 2009) were conducted. Successful outcomes are observable in 8 cases. With regard to the identification strategies purposeful sampling (Jack et al. 2011, DiNoia et al. 2003, Gagliardi et al. 2007, Dobbins et al. 2004, Kothari et al. 2005) as well as randomized selection (Dobbins et al. 2009, Beeckmann et al. 2012) revealed successful interventions. However, causal relations are not proved and reflections whether identification strategies revealed the most relevant stakeholders are not given.

With respect to the REPOPA cases the process of stakeholder inclusion is done in different ways as well. In five local WP 1 policy cases a structured approach is applied. Policy-makers did stakeholder analyses to ensure a comprehensive and relevant stakeholder inclusion (Esb). Others included stakeholders based on previous experiences (Clu, Lat). And further, according to the given context, programmatic policies are obliged to partly include stakeholder delegated by

higher levels in combination with flexible stakeholder inclusion (Net, Her). The analysis of policy cases in Rome, Copenhagen and Odense revealed no visible stakeholder identification. Similar to the literature, no details about most effective strategies could be identified.

Summarized and with regard to the stakeholder role stakeholder identification strategies are applied in the majority of included data. However, a best practice approach does not emerge throughout the data. The included data of this thesis indicates strategies that are summarized in the following Table 24.

| Strategies to identify relevant stakeholders | |
|---|---|
| in the literature | in local WP 1 data |
| Randomized selection (3x)[1] | Stakeholder analyses (1x)[1] |
| Purposeful sampling through experts (4x)[2] | Based on experiences (2x)[2] |
| | Set by higher program managers (2x)[3] |
| Invitation of as many experts as possible(3x)[4] | No strategy stated (3x)[4] |
| Reduction of strategies that occurred most often | |
| - systematic search[1] | |
| - experiences[2] | |
| - rules set by higher levels[3] | |
| - no strategy[4] | |

**Table 24: Quantification of identification strategies**

Along with the knowledge gained from this chapter the following hypothesis can be explored:

*Strategies to identify stakeholders are significant in health projects.*

In order to specify the kind of strategies a consistent structure is not identifiable which leads to the need to expand the hypothesis.

*The kind of applied strategies that lead to the most relevant stakeholders are insufficiently explored.*

The main result of this chapter is the exploration of the hypothesis. Consequently the testing remains open for future research aims. Here, especially the kind of applied strategies require a deeper understanding and therefore cannot find consideration in the actual indicator version. Nevertheless, the first part of the explored hypothesis justifies including the dimension into the

stakeholder operationalization and ongoing indicator development. The basis for possible indicator development is presented in the above Table 24.

### 4.1.6 Timing for stakeholder inclusion

Identified by relevant background information organizational challenges such as time considerations highlight that prerequisites can significantly impede policy-making processes (Stone et al. 2002, Boyko et al. 2012). However, theories or models that concretely elaborate the timing dimension do not exist. This leads to the need to explore a hypothesis. Mainly raised in the WP 1 interviews the timing dimension reveals the aspect of when stakeholders ideally need to be included in the policy process. This justifies the starting point.

With regard to the local WP 1 data phases where defined stakeholder groups are of significant meaning are expressed by several interview partners. A Danish interviewee mentioned: "The University of Southern Denmark was included too late to significantly influence the policy process". A stakeholder inclusion in earlier phases would significantly contribute to a good policy (Esb). Another case included public hearing processes with all contributors of the policy into their policy-making process but structured the hearing part in a very late process (Cop). The intention to include comments into following policy phases was appreciated by interview partners but considered as ineffective due to the wrong timing (Cop). As an example for planned timing stakeholder involvement was scheduled for policy implementation phases in Odense (Od).

On the base of the literature Kothari et al. (2005) consciously included stakeholders in the phase of a report development and therefore confirm that timing has been considered. Further, and even if not mentioned in particular, the time series analysis by Hanbury et al. (2009) considers timing aspects as well. Here, each step is built upon gained knowledge in the step before which allows incorporating input from included stakeholders in previous phases.

In summary, the timing of stakeholder inclusion especially is raised in practice and less in the included literature. Here, especially wrong timing is highlighted. Through this theme the following hypothesis can be explored:

*Exact timing of stakeholder inclusion influences the policy's success.*

The decision to include the timing dimension as a stakeholder indicator is taken even though the hypothesis is not tested. The awareness that content is not saturated enough to substantiate an indicator with item responses exists. To nevertheless include "timing" along the limited amount of data the "policy cycle" (Fisher et al. 2007) serves as fundament for the crude indicator and provides the response items (cf. methods). The following Table 25 presents the draft version.

| Collaboration with other stakeholders scheduled for a particular policy- phase | | | | |
|---|---|---|---|---|
| in the literature | | in local WP 1 data | | |
| Timing aspects considered (2x) | No timing aspects identified (10x) | Wrong timing (3x) | Timing aspects considered (1x) | No timing aspects identified (5x) |
| Reduction reveals insufficient clarification. Therefore consultation of the policy cycle as an additional model for item responses.<br>- problem definition<br>- agenda setting<br>- policy development<br>- intervention<br>- evaluation | | | | |

Table 25: Quantification of timing considerations in combination with the policy cycle (Fisher et al. 2007)


### 4.1.7 Stakeholders as mediators between research and practice

A major problem which often occurs in the policy practice is the need to include a scientific fundament (e.g. randomized controlled trials or health surveys) accompanied by the challenge to translate research into practice (WHO 2005, Lavis et al. 2003, Lavis et al. 2002). This chapter explores the hypothesis whether stakeholders serve as mediators to link research and practice.

According to the included studies researchers test the effectiveness of knowledge transfer strategies to facilitate research uptake in public health settings (and partly in policies). All the 12 included studies address this need which justifies the current relevance. The actual insight whether stakeholders can act between boundaries of research and practice is observable along successful knowledge transfer strategies. In 8 cases interventions indicated a successful mediation between research and practice (Beeckmann et al. 2012, Di Noia et al. 2003, Dobbins et al. 2009, Dobbins et al. 2004, Gagliardi et al. 2007, Hanbury et al. 2009, Kothari et al. 2005, Stone et al. 2002). Consequently, this underlines the significance that actors are able to transfer research into practice.

The relevance to mediate between research and practice which is addressed in the analytical construct is also observable in REPOPA cases.

Lacking interfaces between research and practice are stated as in need to be addressed in 4 local policy cases (Clu, Cop, Es, Lat). Stakeholders embodied by researchers are seen as participants who simplify scientific knowledge with respect to relevant trends and research application (Clu, Esb, Cop, Lat). This supports the above raised hypothesis. Nevertheless, one case points out the

importance to create balances between stakeholders who facilitate research and other actors who can support with local knowledge and other preferences (Esb).

Overall, this leads to the following hypothesis:

*Stakeholders proved to be mediators between research and practice.*

The Table 26 confirms the hypothesis. Therefore, the necessity to include the unit as an indicator is given.

| Stakeholders as mediators between research and practice | |
|---|---|
| in the literature | in local WP 1 data |
| n=12 | n=4 |

**Table 26: Quantification of stakeholders as mediators**

Again and at this stage, an advanced indicator require the consultancy of additional experts and is presented later.

## 4.2 General stakeholder operationalization

Up to now, all identified hypotheses that contribute to operationalize the stakeholder role are elaborated during the literature and local WP 1 policy cases. With reference to the first research question: "what is the stakeholder role in health enhancing physical activity policies?" outcomes of the information gathering lead into a new definition. Accordingly, the stakeholder role is operationalized along of the following aspects (Figure 11).

**Operationalization of the stakeholder role in HEPA policies**

1. Stakeholders are necessary

2. Different stakeholder are necessary

3. Stakeholders contribute with additional knowledge and increase the policy's success

4. Active stakeholder participation needs to be promoted

*Additional hypotheses exploration*

5. Strategies to identify stakeholders are significant

6. The timing for stakeholder inclusion can influence the project

7. Stakeholders proved to be mediators between research and practice

**Figure 11: Final stakeholder role operationalization**

The 7 aspects raised above merge into the indicator development, consultancy and validation and are presented in the next step.

Now, as the stakeholder role is operationalized the turn towards the second question: "which indicators support to recognize the stakeholder role?" is possible. The following chapter presents the results gained from the indicator consultancy and validation.

## 4.3 Indicator consultancy and validation

As already mentioned in the method part the consultation is processed in two loops – first by scientific experts (see Table 13) and second by policy practitioners (see Table 14) (Krippendorff 2013, p. 85/ 354ff.). To remember – the common output of consultancy and validation is already stated in the method part (Figure 6). Thus, the product – which is the revised set of indicators – emerged from the process of consultancy and validation, too.

All review remarks were collected according to the kind of feedback and resulted into revised indicators. Main issues are summarized in the following.

**a) Response items**

With respect to responses given for each question the design was discussed by the reviewers. Suggestions ranged from 5 point likert-scales to the fact that yes and no answers are more clear but do not cover items that go beyond the two statements. Nevertheless, the decision to structure response items along the planned methodology is taken. Strengths and limitations are discussed later.

**b) Target group**

Raised by many reviewers was the fact that initial versions did not clearly state the target group and the purpose of the tool. These suggestions lead into changes mainly in general tool- and user information. Also recommendations how to proceed after the questionnaire is completed are structured accordingly. With reference to the target group (cf. p. 16) the tool is reformulated and focused to reach policy practitioners who decide to evaluate their policies. Added information that this tool is part of a comprehensive evaluation program is given in order provide an overall framework.

**c) Wording and sentence constructions**

Not stringent or ambiguous formulations were identified by reviewers. Suggestions lead into term operationalization, changes or reconstructions.

**d) Aspects for simplifying the tool**

A remark highlighted by reviewers was due to the tool's scope. Considering the fact that practitioners only have limited time the tool has been reduced to the essence in order to gain practicability. For this reducing reviewers took a considerably part. With respect to increase the understanding of each question short explanations that introduce dimensions were discussed. However, this raised controversial opinions and ends up - if appropriate- in a short sentence with only minor explanations. Suggestive or background information have been avoided (Kirchhoff et al. 2003, p. 21).

**e) Additional items**

An additional question which does not result out of the data but is raised as important from experts is included in the "identification" section. This question queries whether relevant stakeholders exist but are not included in the policy-making. In line with the evidence-informed decision-making approach (Lavis et al. 2009) annotations of this kind are desired as they support capturing aspects that might be neglected in the scientific literature but raised in practice. The fact that this additional item was confirmed by other reviewers resulted into the tools.

The consideration of all aspects leads to the revision of the tool. In addition, the order of included items is ranked from general to specific questions (Kirchhoff et al. 2003, p.23) and is therefore not given in the above presented order. After this process a tool emerged that could pass through the pilot-testing.

## 4.4 Indicator utility

This paragraph presents the indicator utilization. This is realized by the Sağlık project already introduced in the method chapter (step 4, cf. Table 15). After the consultation and validation phase has been finalized the Sağlık research assistance's (Table 14) were contacted a second time and asked to fill out the tool with respect to the Sağlık project. An ongoing discussion of every item allows testing the feasibility in a practical environment. The following outcomes summarize major aspects that shape the final tool revision. Recommendations and future research intentions that emerged out of the pilot-testing are discussed in the next chapter.

**a) Coding and confidentiality**

Here, instructions to incorporate ethical considerations are given. This resulted into the incorporation of a sentence that mentions confidentiality and anonymity (WHO 2001b).

**b) Wording and sentence constructions**

Raised as in need to be changed is the expressiveness of some words. More concrete sentences increased the clarity and specification of questions. Furthermore, a direct approach towards the target group was recommended. This also includes the reducing of the tool information to the essence. Sentences that were of general, introducing nature where therefore deleted if they do not contribute with additional information.

**c) Design**

In order to create a stringent tool design remarks to structure different aspects in different forms are given. Thus, depending on the answer possibilities a single response is marked with circles whereas multiple answer possibilities can be identified along rectangles. Moreover, instructions are marked in italics. These item arrangements are unified in the entire tool and aims to create a structured, user-friendly tool. An example is given in the Table 27 below.

| Is the collaboration with stakeholders scheduled for a particular policy- phase? | |
|---|---|
| o Yes   o No   o Not applicable | |
| **If Yes:**<br>**Please mark appropriate phases.** | *Multiple answers are possible.*<br>□ Problem definition<br>□ Project planning<br>□ Project development<br>□ Implementation of activities<br>□ Evaluation<br>□ Others, please specify:<br>_____ |

Table 27: Example of a stringent design


### d) Comprehensiveness and crosslinking of questions

The starting point of this aspect is the annotated ambiguity of some questions in comparison to other questions. Thus, the idea to crosslink questions with each other was discussed. This resulted into changes in the themes of diversity and participation. Previously designed closed response items for the question: „Please mark the partners concretely involved in the project." are changed into open answers even if the elaborated hypothesis would have had offered closed answer categories. The initial item and the advanced question are now presented in Table 28 and allow pursuing a transparent process.

| **Please mark the partners concretely involved in the project development.** *Multiple answers are possible.* | |
|---|---|
| □ National decision-makers | □ Political parties |
| □ City Departments (e.g. Health) | □ Service provider (e.g. Hospitals) |
| □ Research institutes (e.g. Universities) | □ Schools |
| □ Health promotion facilities | □ Sport clubs |
| □ Target groups (e.g. children, elderly) | |
| □ Others, please specify:_____ | |

Table 28: Initial question design

For a greater comprehensiveness the above presented question changed into a modified question shown in Table 29.

| 4. What are the stakeholders you concretely collaborate with? | |
|---|---|
| **_Please name all stakeholders and think of the different policy phases_** | |
| Problem definition | |
| Project planning | |
| Project development | |
| Implementation of activities | |
| Evaluation | |

Table 29: Advanced question design

Changes aim to link stated stakeholders to the participation item that automatically increases consistency. The designation of the collaboration partners can be taken up in the participation item again. For reasons of comprehensibility the item is now presented in Table 30.

"Now, think of the stakeholders you have already listed as your collaboration partners in item number 4."

| 9. Do you involve your collaboration partners in your policy process? | | | | | |
|---|---|---|---|---|---|
| o Yes o No o Not applicable | | | | | |
| If yes, please mark how stakeholders are involved and distinguish if there are differences | | | | | |
| _Cross the most appropriate box._ | Stakeholder 1: Please name: _____ | Stakeholder 2: Please name: _____ | Stakeholder 3: Please name: _____ | Stakeholder 4: Please name: _____ | Stakeholder 5: Please name: _____ |
| They receive information about the project. | | | | | |
| Their viewpoints are of interest. | | | | | |
| They are involved in decisions. Presence is not a prerequisite. | | | | | |
| They have a voice in major project decisions. | | | | | |
| They are partly responsible for project decisions. | | | | | |
| They are responsible for all project decisions. | | | | | |
| Nothing is applicable. | | | | | |

Table 30: Example of question crosslinks

Because of the distinction into policy phases in the upper item number 4 conclusions can be drawn when stakeholders are categorized in stages of participation in item number 8 later on.

**e) Additional items**

An additional item was raised by discussing the aspect of participation. Here one research assistant commented that actual and targeted states are different aspects that enlighten interesting insights. On the one hand the offer to participate in health projects can be present whereas on the other hand the offer might not be accepted by the participants. Therefore, another dimension was included that queries whether participation was actually accepted by the included stakeholders. Justification for additional items is already stated in the chapter of consultancy and validation.

**Tool finalization**

The process of all steps (Russel et al. 2011) reveals a set of indicators evaluating the stakeholder role in local health enhancing physical activity policies. The final product is now presented. Afterwards, the thesis is discussed.

# The stakeholder role

**In local health enhancing physical activity policies**

You as a responsible project manager have decided to evaluate your project. This questionnaire supports you to recognize stakeholder roles. It can raise your attention on general stakeholder values and on particular working processes. Strengths and weaknesses can be identified that offer opportunities for team discussions and action if required. Assistance is provided by the evaluation team. In cases of queries do not hesitate to contact them.

Please read and answer each question with reference to your project. Of course participation is voluntary. All information are treated with confidentially and data anonymity is guaranteed.

## General policy information

Please fill in.

Policy title:

_____

Project period:

_____

Project leaders:

_____


## Significance for the project

Stakeholders can be for example health promotion units or schools.

| 1. Do you think that stakeholders are necessary for your project? | |
|---|---|
| o Yes   o No   o Not applicable | |
| **If yes, Stakeholders…** | *Multiple answers are possible*<br><br>□ disclose relevant themes<br>□ indicate different perspectives<br>□ increase the policies' recognition<br>□ contribute with other aspects, please specify:_____ |


## Diversity

Your health project is located on the local level.
*Now please think of policy crosslinks - they can be with other levels and/or other sectors.*

| 2. Do you collaborate with stakeholders from other sectors (e.g. sector for migration and population)? |
|---|
| o Yes   o No   o Not applicable |
| 3. Do you collaborate with stakeholders from other levels (regional and / or national)? |
| o Yes   o No   o Not applicable |

Involved partners can be for example city departments, sports clubs or target groups.

| 4. What are the stakeholders you concretely collaborate with? Please name all stakeholders collaborating in your project and think of the different policy phases. | |
|---|---|
| Problem definition | |
| Project planning | |
| Project development | |
| Implementation of activities | |
| Evaluation | |

## Identification

| 5. Do you use certain strategies to identify relevant stakeholders for your project? |
|---|
| o Yes   o No   o Not applicable |
| **If Yes:**<br>**Please specify the strategy:_____** |

| 6. Do you know of relevant stakeholders that are not included in your policy? |
|---|
| o Yes   o No   o Not applicable |
| **If Yes:**<br>**Please specify which stakeholders:_____** |

## Timing

| 7. Is the collaboration with stakeholders scheduled for a particular policy- phase? | |
|---|---|
| o Yes   o No   o Not applicable | |
| **If Yes:**<br>**Please mark appropriate phases.** | *Multiple answers are possible.*<br>□ Problem definition<br>□ Project planning<br>□ Project development<br>□ Implementation of activities<br>□ Evaluation<br>□ Others,please specify:<br>_____ |

## Knowledge

| 8. Do you integrate knowledge from different stakeholders in your project? | |
|---|---|
| o Yes   o No   o Not applicable | |
| **If yes:**<br>**Please specify the kind of knowledge which provides additional benefits .** | *Multiple answers are possible.*<br>□ Previous project experiences<br>□ Local knowledge<br>□ Scientific knowledge<br>□ Knowledge of target groups<br>□ Other knowledge, please specify:<br>_____ |

## Participation

*Now, think of the stakeholders you already have listed as your collaboration partners (item number 4).*

| **9. Do you involve your collaboration partners in your policy process?** | | | | | |
|---|---|---|---|---|---|
| o Yes   o No   o Not applicable | | | | | |
| **If yes, please mark how stakeholders are involved and distinguish if there are differences.** | | | | | |
| ***Cross the most appropriate box.*** | Stakeholder 1: Please name: _____ | Stakeholder 2: Please name: _____ | Stakeholder 3: Please name: _____ | Stakeholder 4: Please name: _____ | Stakeholder 5: Please name: _____ |
| They receive information about the project. | | | | | |
| Their viewpoints are of interest. | | | | | |
| They are involved in decisions. Presence is not a prerequisite. | | | | | |
| They have a voice in major project decisions. | | | | | |
| They are partly responsible for project decisions. | | | | | |
| They are responsible for all project decisions. | | | | | |
| Nothing is applicable. | | | | | |

If you have answered question number 8 with yes:

| **10. Do stakeholders accept the offer to participate in your project?** | |
|---|---|
| o Yes   o No   o Not applicable | |
| **If Yes:** **Please list the stakeholders who accept participation:** | |

## Mediation

The next question is about science in your project. This can be for example data from health surveys but also scientifically tested tools.

| 11. Do you use scientific materials for your project? | | |
|---|---|---|
| o Yes    o No    o Not applicable | | |
| **If Yes:**<br>**Do you experience the incorporation of sciences as difficult?** | o Yes    o No    o Not applicable | |
| | **If Yes:**<br>**Do you think that other stakeholders could mediate sciences into your project?** | o Yes    o No    o Not applicable |

## Finally

| 12. Do you have additional comments or remarks? Here is space for thoughts. |
|---|
| |

## And now?

The above stated indicators provide an opportunity to discover stakeholder roles in your policy. Outcomes can be used to take action in your evaluation process. The nature of action can range from raising awareness towards stakeholders to changes in the policy-making processes. Discuss it with you team. As desired the evaluation team assists you.

Furthermore, the present stakeholder indicators are to be seen as a step which needs to be revised and improved over time. Therefore, collaboration and cooperation between organizations that use and develop this tool are appreciated.

In cases of queries, please contact:

Anne Wiechmann (awiechmann@health.sdu.dk)

Maja Larsen (malarsen@health.sdu.dk)

# 5. Summary and discussion

HEPA policies face challenges in phases of development and implementation. One reason can be explained by the gap between research and practice which was the starting point of this thesis. When asked how these competencies can be brought together stakeholders seem to take a central part (Boyko et al. 2012, Zwarenstein & Reeves 2006). However, roles were insufficiently defined and tools to recognize the stakeholder role in HEPA policies were lacking.

This thesis was based on the expectation that this gap can be closed by clarifying the stakeholder role. For this purpose several steps have been done: The stakeholder role has been operationalized and related stakeholder indicators are developed and tested. The total process is summarized and reflected in the following chapter. Finally, recommendations for the future and a conclusion are presented.

## 5.1 Method discussion

Initially, the method is discussed in order to assess the results properly. This is based on 4-steps (Russel et al. 2011) which have been presented earlier (cf. p. 17 ff.). The result discussion starts on page 76.

**The general framework**

A main source on which this thesis relies on is the study by Daugbjerg et al. (2009). By reviewing HEPA policies in Europe authors highlighted an increased trend towards HEPA policy development but clearly stated lacks in policy contents already mentioned above.

This thesis takes up the recommendations posed by Daugbjerg et al. (2009) and supports to close the gap: Stakeholder roles are operationalized and transformed into an assessment tool. However, limits with respect to the transferability exist: In their overview Daugbjerg et al. (2009) refer to national policies whereas the present thesis relates to the local level. The transferability of similar gaps with respect to the local level is assumed. Lack of local overview studies have led to the assumption and therefore require verification in future studies.

**Step 1 - information gathering to operationalize the stakeholder role**

The investigation of stakeholder roles in HEPA policies is based on the content analysis of REPOPA WP 1 data as well as on a literature research. Advantages therefore are related to the discovery of a comprehensive field from both the practical (content analysis) and scientific (literature) environment. These perspectives allow the embedding of the content into the context. At the same time takes the needs of current recommendations (Daugbjerg et al. 2009) and evidence-informed approaches (Oxman et al. 2009, Ciliska et al. 2010) are taken into account. Thus, neither

science nor practice is the sole content. This forwards the idea of evidence informed policy making. In the following chapter both, content analysis and literature research are reflected critically - first independently (a & b) and afterwards connected to each other (c). The sections a) and b) serve as base for combining the data material. Thus, the section c) can be seen as key part of step 1.

## a) Content analysis

The content analysis makes use of REPOPA WP 1 data and includes policy document analyses and interviews of 8 local policy cases. Thereby, the data consists of five different countries (cf. methods, p. 21f.) and allows taking a broad and international perspective. This enhances the comprehensibility of stakeholder roles and meets the requirement of a proper indicator development (Russel et al. 2011, European Commission 2013). Nevertheless, limitations occur and are mainly due to differing data extensiveness. Thus, the available interviews vary in their focus and cases appear in different comprehensiveness.

## b) Analytical construct of literature research

As presented in the methods the literature research has been conducted on three different channels: The snowball method, the systematic search and the hand search allowed taking a wide perspective to regard the field of health. However, 5 included studies directly take place in the policy environment (Dobbins et al. 2009, Gagliardi et al. 2007, Kothari et al. 2005, Dobbins et al. 2004, Di Noia et al. 2003). The other 7 studies target the general public health setting such as general practitioner's work (Buchan et al. 2009) or mental health professional environments (Hanbury et al. 2009). None explicitly target physical activity policies. Thus, the result of the literature overview represents the entire public health setting and not - as ideally- the direct setting in which this thesis takes place. Reasons are traced back to the rather unexplored field of stakeholders in HEPA policies (Daugbjerg et al. 2009, Bornstein et al. 2009). This again confirms the need of this work – to raise awareness for stakeholders in HEPA policies - but at the same time limits the analytical construct of this thesis. Referring to Krippendorff (2013, p. 42) the construct is considered as the context that maps the reality as close as possible and aims to provide a realistic counterpart for the content analysis. As this prerequisite is not completely met by the available literature this has implications on the abductive inferences between content and context which is discussed in the following.

**c) Abductive inferences between content and context**

The abductive inferences between content and context allowed operationalizing the stakeholder role. By including different kinds of evidence (content and context) triangulation between both poles enters an innovative field that exactly picks up the challenge of missing connections. Hypotheses are tested, new hypotheses are explored and tested in first steps. Therefore, this thesis needs to be seen as a starting point to reduce the mentioned discrepancies. The new stakeholder role that emerged along this thesis makes an important contribution towards stakeholder awareness. However, during the working process of abductive inferences and the intention to connect content and context it became apparent that the scientific analytical construct is not identical to the policy-making in practice (Krippendorff 2013, p. 42). By comparing the content analysis from a practical point of view and the literature research from the scientific perspective gaps between research and practice are confirmed again. In particular, study objectives are related to the transfer of science into practice. In contrast, local WP 1 data highlights that mainly other aspects do play a role in policy practice. Political structures, hierarchies or time limits are aspects that appear more often.

Discrepancies of content and context underline the challenge to connect research and practice. Still efforts are needed to further facilitate research into practice and vice versa. The EU project REPOPA targets exactly these pathways in the future and this study contributes to face these challenges by considering both poles.

After the stakeholder role has been defined the clarification of how to recognize stakeholder roles in HEPA policies was the second aim of this project. Therefore, and on the base of the new stakeholder understanding stakeholder indicators have been developed.

In further processes consultancy and validation steps to advance stakeholder indicators are discussed.


**Step 2 - indicator consultancy**

With reference to the 4-step methodology by Russel et al. (2011) the second step made use of a consultancy phase. Here, scientific as well as policy practice experts were included as reviewers to comment on a first draft of developed stakeholder indicators. This enhances the outcome with respect the inclusion of scientific and practice knowledge – a crucial point in contrast to previously conducted studies that often neglect considerations of both poles.

In this thesis, the consultancy has been carried out qualitatively. Reviewers were asked to comment on relevance, wording, missing's, unnecessary indicators and other aspects. The qualitative approach is justified by the intention to gain as much input as possible – also with respect to aspects that have not been considered by the author. However, the application of

quantitative methods such as likert- scales that range from not aware to very aware or helpful to very helpful (Russel et al. 2011) could have enabled standardized and more structured comments (Bortz & Döring 2006, p. 297). Nevertheless, a variety of qualitative feedback that might have not been raised through scales was posed by both, researchers and practitioners. This enhanced the tool's applicability and raised the chance to gain valuable insights. At the same time the awareness exists that these insights do not necessarily need to be right. The risk of errors and biases through expert's opinions is accompanied by expert consultation (Bogner et al. 2009 p. 117).

Moreover, contacted reviewers are of different origins and cover the Romanian, Danish, Dutch, Italian and German environment. Again, as already discussed with respect to the WP 1 data (content analysis) this enhances the international character of this thesis. However, the transferability of different perspectives and contexts to a general outcome is only assumed. Different countries combined in the REPOPA project as well as the inclusion of a German project cover a wide field. This enhances the assumption that outcomes can be applicable to similar countries.


**Step 3 - quality of indicators**

After the indicators have been improved through reviewers from research and practice the next step was to reflect the indicators quality. According to Russel et al. (2011) this step is described as validation. With regard to all quality criteria validity is also connected to objectivity as well as reliability. Thus, it is consequent to reflect all the three criteria in the following (Bortz & Döring 2006, p. 326ff).

Related to the quality criteria of objectivity especially transparency through a detailed description of methodological processes was taken into account (Bortz & Döring 2006, p. 326). Furthermore, a standardization of both literature search (cf. Table 6) and interview guides was ensured (Hämäläinen et al. 2013).

With respect to the degree of reliability indicators serve as a tool to ensure reproducibility for stakeholder evaluation in differing contexts (European Commission 2013). However, all items are based on the content and context analysis as well as on reviewers' comments. This leads to the reflection of reliability extends. "Is it sensible to rely on reviewers comments?" In this thesis, mainly comments which were mentioned multiple times were considered as the most reliable annotations. All dimensions are listed in the result chapter (indicator consultancy and validation). Raised by the discussion during pilot-testing project membership might influence the responses as soon as the project's overview is more wide ranging. Although the exact inter-rater reliability is

currently unknown the above stated argument reduces the chance that items are unreliable. In the future, quantitative methods could limit uncertainties.

Moreover, by comparing different forms of data (interviews and literature) in similar settings a first milestone towards a validation process has been set –different sources reduce uncertainties when interpreting the results (Botz & Döring 2006, p.328f).

Further and in terms of a consensual validation (Bortz & Döring 2006, p. 328f) multiple reviewers from different levels (research and practice) could strengthen the credibility of results. Failed consensus resulted in revisions, changes and further analyses and thus increased the significance of the elaborated outcomes.

In addition, external as well as internal validity need to be considered. External validity is met by pilot-testing the tool in the Sağlık environment (Bortz & Döring 2006, p. 334f cf. step 4 - utilize). Along internal validity, the question arises whether the overall interpretation has been plausibly derived from the data. Here, limitations mainly with respect to discrepancies between content and context are already stated in the sections above (cf. p. 71ff.). As another aspect of validity the sample selection and thus the question of representativeness in order to allow generalization needs to be considered. With respect to the content analysis the sample is purposefully defined by the REPOPA WP 1 (Hämäläinen et al. 2012) - in the literature search selection strategies have been adopted by a current relevant literature overview (La Rocca et al. 2012). Thus, a careful selection has been considered in this study. However, outcomes are mainly explorative and rather substantiate the established hypotheses. Representative outcomes need to be realized in the future.

**The questionnaire**

With references to the chapter of indicator consultancy and validation the type of response items and the decision to mainly choose closed questions was taken in order to create a comprehensive tool. Therefore, this tool rather assesses an actual state than changes for pre-post measurements. Moreover, the tool is based on a voluntary self-assessment. Responses therefore do not necessarily need to be correct. Considering scales would have had the advantage to facilitate comparability over time (Russel et al. 2011). Also changes would be measurable along scales instead of yes/ no responses were small changes cannot be identified.

**Step 4 – utilization**

In this thesis, the described step of utilization (Russel et al. 2001) needs to be understood as an applied pre-testing. Here, the German project Sağlık, (described on page 37f.) served as testing ground in order to examine general tool applicability. Because of the fact that the tool is

developed from a scientific point of view the risk to be too specific for the practical environment could be reduced through this step.

Concrete utilization follows after finishing this thesis. In line with the need to create shared tools for research and practice indicators will be used for both. The tool finds utilization in the REPOPA WP 4 (cf. Figure 5). Here, a Delphi process draws on frameworks, methods and indicators developed during work packages 1 -3. Results are used to guide the policy practice. Therefore, multiple partners from policy practice can profit from this work. As soon as the tool will be applied the transformation into an electronic version is required. Further, outcomes will be published along a scientific article.

## 5.2 Result discussion

In summary, the 4-steps methodology led into the operationalization of the stakeholder role and revised stakeholder indicators. This is already shown in the result chapter. The stakeholder role as it can be seen through this work is reflected in the following chapter. By offering suggestions how to forward the understanding future steps are recommended later on.

### 5.2.1 The operationalized stakeholder role

The stakeholder role has been identified in order to advance HEPA policy processes. The new understanding considers both poles – research and policy practice data which is an important step to link these fields that challenge commonalities. Even though some results face limitations with respect to data comparability (cf. method discussion) this study is the first that defined the stakeholder role. The following 7 characteristics have been identified:

1.  Stakeholders are necessary
2.  Diverse stakeholders from different levels and sectors need to be considered
3.  Stakeholder knowledge can positively shape health projects
4.  Active stakeholder participation needs to be promoted
5.  Stakeholder identification needs to be done more strategically
6.  Exact timing of stakeholder inclusion influences the policy's success
7.  Stakeholders proved to be mediators between research and practice

The first 4 characteristics derived from data in combination with the current state of research. Here, existing models such as the health in all policy approach (Adelaide Statement 2010) was taken as a fundament. In addition, three other features have been added based on this work. Implications can be explained by the data material itself.

Concrete, the role can be reflected as follows:

*1. Stakeholders are necessary*

Stakeholders disclose different perspectives and this enhances the policy's quality. Both, literature findings and policy practitioners confirm this statement. As an example, stakeholders are expected as a prerequisite for successful knowledge integration strategies (Barwick et al. 2009). More details are unraveled along the WP 1 interviewees who argue that stakeholders are necessary as they raise relevant themes not considered by direct policy-makers. Cases that considered stakeholders in their policy processes could increase the policies quality in terms of new perspectives, goal formulation and greater recognition (Cop, Her, Esb). Thus, whenever the stakeholder role has been occupied an improvement in the policy development was reported. This result underlines positive effects through stakeholder considerations. In cases of low stakeholder value the policy making processes were stated as formalities that mainly exist to trigger political interests (Clu, Od).

However, limited insights with respect to stakeholder inclusions or reasons for closing the policy process for internal groups require a deeper understanding. Here, further considerations are needed and therefore presented later in the recommendation part.

*2. Diverse stakeholders from different levels and sectors need to be considered*

Again, the literature confirms the general thought of diverse stakeholders in HEPA policies. Advantages that multiple stakeholders offer different perspectives as well as the need to consider representative and diverse mixtures of stakeholders are underlined. - This justifies a productive working environment.

With reference to the local WP 1 policy cases the understanding of stakeholder diversities goes beyond the sole necessity to involve different stakeholders. Furthermore, there seems to be a strong dependence to the context in which the policy takes place. Closed processes without any external stakeholders (Od), projects open for selected stakeholders (Cop) but also wide stakeholder inclusions (Esb) could be identified.

It has proved to be burdensome as soon as too many stakeholders were involved (Esb). However, no stakeholder involvement was considered as a drawback, too (Od). Consequently, certain stakeholder diversity is taken as an advantage; even though the extent needs to be adapted to the policy frame.

The dimension of cross-sector work – as a part of diversity aspects- especially is highlighted in recommendations for general policy frameworks such as the health in all policy approach or particular recommendations for physical activity promotion (Adeleaide Statement 2010, Kahn et al. 2002, Sallis & Glanz 2009).

Given the fact that included literature touches cross-sector work in two studies (Stone et al. 2002, Barwick et al. 2009) the majority of local policy cases consider cross-sector work. Therefore, recommendations in general policy frameworks mainly appear as implemented in practice. From the practical perspective diversity aspects through the implementation of cross-sector work can be confirmed. At the same time the need to examine cross-sector work in empirical studies is recommended for future research intentions.

Similar is true for multilevel approaches. With regard to both, the literature and local WP 1 cases only limited data considered multi-level approaches. It is visible that multilevel work enhances the policy's quality (Jack et al. 2011, Barwick et al. 2009, Dobbins et al. 2004, Cop) but deeper information are lacking. Questions such as how to actively collaborate on different levels and how to maintain connections also for future cooperation's are interesting to pursue in following steps.

### 3. *Stakeholder knowledge can positively shape health projects*

Knowledge exchange between disciplines is highlighted in the literature and local WP 1 cases. Especially in the literature, different forms of stakeholder knowledge combined into one policy are underlined. Here, knowledge exchange is considered as the main strategy to connect research and practice (Dobbins et al. 2009, Barwick et al. 2009).

Also local WP 1 cases highlight that stakeholder knowledge can be used to enhance the policy's quality. Here, stakeholder knowledge is stated as a major reason to include stakeholders (Net). Particularly, experiences are awarded a high priority. A positive effect in the policy process was demonstrated as soon as external stakeholder knowledge was taken into account.

Limitations are due to the fact that all included literature studies aim to distribute scientific knowledge to health practitioners. Policy practice, however, deals with experiences, practical knowledge and local knowledge as essentials for the policy's success. Comparing literature and policy findings again confirm the discrepancies between research and practice: Literature underlines sciences whereas practice highlights the practical forms of knowledge.

In summary, different forms of knowledge need be included in a policy process. This has been proved by the results. Simultaneously it points out the connection to the diversity dimension which was previously stated.

### 4. *Active stakeholder participation needs to be promoted*

Active participation is highlighted as a main contributor to a successful policy strategy (Adelaide Statement 2010). Nevertheless, to involve stakeholders beside the direct policy-makers does not necessarily mean that they are able to participate in the program development. The actual degree of participation awarded to stakeholders can be wide ranging – from neglecting these groups to

integrated and self-sufficient team members. According to Wright et al. (2007) participation is exactly required to create sustainable projects.

Returning to the results of this thesis through both data sources mainly preliminary stages of participation as well as non-participation could be identified (cf. table 22). Two cases applied active participation:

The study by Gagliardi et al. (2007) held a 1 day workshop to prioritize on research gaps, research questions and implementation planning with respect to cancer research. The active participation of stakeholders resulted into immediate impacts by increasing the perceived relevance, the feasibility, the recognition of different perspectives and the importance to create a common collaboration ground. In addition, authors were interested whether the active workshop could inspire participants to enhance their participation to stages of self-organization independently. In more detail, the researchers observed whether steering groups, research groups, proposals or funding were initiated based on the new knowledge gained through that workshop. These outcomes did not occur. The one day workshop but also the omission of participation levels (e.g. decision-making authority, cf. Figure 8) may have led to a lack of success.

However, this is not the main purpose of this thesis. Lessons learned (Gagliardi et al. 2007) are due to the fact that active participation can be successful but needs to be planned carefully. Multiple objectives in a short time but also skipping stages of participation could lead to a lack of success.

The same can be seen in the latter case of active participation. The city of Esbjerg actively involved stakeholders and could specify the policy direction. Moreover, they pointed out main tendencies relevant for the policy process. However, at the same time they had to deal with the following challenges. The municipality had a high interest in keeping certain stakeholders satisfied. Moreover, the participation of external stakeholder was voluntary and those who were interested in participation are encouraged to significantly shape the policy. This has led to the fact that mainly young and already physically active people were targeted by the policy. No special focus was set on physically inactive people and equity considerations were neglected. – An aspect that might be considered as soon as other stakeholders would have been actively involved as well. Again, this goes back to the importance of stakeholder diversity. Stakeholder roles consist of many facets and its combination need to be considered.

Summarized, active stakeholder participation can combine expertise and increases the policies quality. However, active participation needs to be done in purpose and should be planned strategically.

Referring to Wright et al. (2007) this result clearly underlines the need to strengthen the degree of active participation in HEPA policies. At the same time a careful guidance and planning is required in order to forward the policy. The risk of misdirection or false priorities is given.

As explained above another 3 hypotheses derived from the included data and provide first instructions to deepen the stakeholder role:

5. *Stakeholder identification needs to be done more strategically*

A balanced and complete representation of interest groups is recommended as outcomes are connected to improved capacity building and knowledge exchange (Boyko et al. 2012, USEPA 2001). The hypothesis that identification strategies are significant can be confirmed. This is justified by both data sources and the fact that the majority applied forms of strategically selection. However, it remains unclear whether these strategies revealed relevant stakeholders that enhance the policies quality. A consistent structure is not identifiable which leads to the need to expand the hypothesis. The kind of applied strategies that lead to the most relevant stakeholders are insufficiently explored. Already known as common strategies are systematic searches (stakeholder analysis), identification strategies based on previous experiences or networks as well as given rules through programmatic policy structures (cf. Table 24). A comparison of the above mentioned identification strategies in order to explore a well-founded hypothesis does not exist and is recommended as a future step.

6. *Exact timing of stakeholder inclusion influences the policy's success.*

With reference to the results the timing of stakeholder inclusion mainly is raised in practice. Here, especially wrong timing is highlighted. In one case earlier stakeholder inclusion respectively the inclusion into appropriate phases could have supported the policy's success (Esb). In another case a hearing process was initiated too late in order to significantly include results into the policy-making (Cop).
In contrast, implemented timing is realized by Kothari et al. (2005). Here, stakeholders were included into the report development phase and outcomes could increase the report understanding combined with a greater report valuation. Therefore, exact timing is important in stakeholder involvement. Earlier, timing considerations appear as neglected and could be eliminated by a more structured planning process. The policy cycle (Fisher et al. 2007) could frame the understanding.

Nevertheless, several questions are in need to be pursued in future steps. Starting point for continuing hypothesis testing refers to identify existing time schedules and to gain a deeper understanding of successful and not successful strategies. Furthermore, the following questions can increase the understanding of timing considerations. Do unrealistic requirements in policy-making processes lead to a wrong timing? Respectively are requirements in policy phases doable? Answers could enlighten drawbacks in policy processes that could also unravel reasons for wrong timing.

### 7. Stakeholders proved to be mediators between research and practice

For a qualified policy scientific content is not the sole source that appears to be significant (Lavis 2009). Experiences, political interests or knowledge of target groups are examples of practice content that need to be considered in projects, too (Lavis et al. 2009). This thesis was based on the expectation that stakeholders can link research and practice parts that together can support the policy success.

Results confirm that stakeholders proved to be mediators between research and practice: With regard to the literature research 8 studies revealed successful interventions which indicated a positive mediation between research and practice (Beeckmann et al. 2012, Di Noia et al. 2003, Dobbins et al. 2009, Dobbins et al. 2004, Gagliardi et al. 2007, Hanbury et al. 2009, Kothari et al. 2005, Stone et al. 2002). Consequently, this underlines the significance that actors are able to transfer research into practice. However, all studies investigated the direction from research into practice.

With regard to the local WP 1 data the lacking interfaces between research and practice are stated as in need to be addressed in 4 local policy cases (Clu, Cop, Es, Lat). Here, stakeholders can offer relevant trends and thus, facilitate to identify effective pathways (Clu, Esb, Cop, Lat).

In line with arguments of evidence informed approaches (Lavis et al. 2009) also other forms of mediation beside research expertise are required. In first approaches, this can be clarified by the Esbjerg municipality case; here the importance to create balances between stakeholders who facilitate research and other actors who can support with local knowledge and other preferences is expressed as important (Esb). Thus, it is insufficient to solely find stakeholders able to transfer research into practice. If research experts are able to mediate knowledge into practice successful mediation of other knowledge forms would be likely, too. This should be true for policy practice but also vice versa for sciences. Therefore, two questions would be interesting; first, the extent of successful mediation with respect to other stakeholders and second, insights of what practice can transfer to researchers.

Summarized, when regarding the stakeholder role it is of special importance to consider every elaborated facet. They build upon each other and together they complete the entire role.

### 5.2.2 Stakeholder indicators

After the stakeholder role has been defined the 7 characteristics built the fundament for indicator development. Questions emerge and are due to the following dimensions:

- General policy information
- Stakeholder significance
- Stakeholder diversity
- Stakeholder identification
- Timing
- Knowledge
- Participation
- Stakeholder mediation
- Space for additional comments

Especially, the indicators serve as possibility to take an action towards a stronger stakeholder focus in HEPA policies. Together, the indicators provide a tool that can raise awareness and offer room for discussions among policy-makers and teams. Moreover, the indicators provide an important assessment strategy which is recommended in the current literature (European Commission 2013). Of particular advantage is the fact that these indicators can be used in different settings which is important in the rapidly changing field of policies (WHO 2005, Hawe et al. 2004).

However, stakeholders represent one facet in a policy process which automatically leads to the tools embedding into a greater framework. Therefore, this tool represents a subcategory of an entire policy assessment.

## 5.3 Consequence

Now after the results are reflected open aspects in need to be completed are presented. Related to the importance of stakeholders in HEPA policies the following should be considered.

**Recommendations for the future**

Already mentioned in the result chapter some themes did not lead into saturation and require a deeper hypothesis testing (Bortz & Döring 2006, p. 31). On the one hand this is applicable for the hypotheses 4 – 7 (cf. p. 31) and on the other hand for the following dimensions that indicated

interesting additives for future indicator versions. In this chapter recommendations for future stakeholder role dimensions are given.

**Time**

The timespan needed to enable stakeholder contribution (Boyko et al. 2012) is required to reach outcomes. This issue has been touched by the theoretical background (Boyko et al. 2012) as well indirectly by organizational drawbacks mentioned in local policy cases. In summary, the time span is mentioned as a prerequisite to take an action (Od, Cop, Lat, Net). Even though this is challenging in many practical environments it is required to be addressed (Stone et al. 2002). Because of the fact that no deeper information have been identified the dimension is not saturated enough to be included into the questionnaire at this stage. Therefore, the recommendation to deepen the unit in further processes is given.

**Stakeholder in- and exclusion**

This dimension is linked to the first stakeholder role facet. Here, limited knowledge with respect to stakeholder inclusions and reasons for exclusive policy making processes are stated already. The decision of stakeholder in- or excluded in policy-making appears controversially and is mainly raised in WP 1 data. One policy strategy clearly state that a policy is a politician's affair and therefore mainly encompasses internal stakeholders. Also the decision of other stakeholder inclusions was not a discussion issue and furthermore set by the politicians (Od). In contrast, there were decision makers arguing to include a wide range of stakeholders in order to gain a comprehensive policy outcome. Whereas the local WP 1 data reveals concrete examples of in- or exclusion issues the literature only states the general information that stakeholder inclusion is beneficial (Boyko et al. 2012, Carcasson 2009). Deeper information was not found in the literature. Related to findings based on WP 1 data not only inclusion but also exclusion strategies appear to be meaningful. On the one hand this finding serves as first starting point for further research intentions. However, on the other hand WP 1 policy cases do not indicate conformities. Instead, each case describes different perspective. Thus, the dimension of in- and exclusion is not saturated enough to be included in this version of indicators. First considerations have been realized with respect to the item raised by a reviewer (cf. 4.4; paragraph e). Here, the question whether relevant stakeholder exist but are not included into policy phases can illuminate deeper information that in turn can promote the saturation of this topic. Nevertheless, future research intentions such as qualitative interviews could enlighten this theme.

**Recommendations for advanced methods**

Further and beside indicator completion the development of methods on how to facilitate active stakeholder involvement are necessary. Activities after this tool has been used are not covered by this thesis. Guidance to follow it up could be completed through the following possibilities:

a) Qualitative research could reveal details about the following 3 areas of interest:

- Reasons that made policy practitioners to answer the way they have answered
- Insights on how to include missing stakeholders
- Pathways on how to advance the tool and modify indicators

Active involvement and the inclusion of hearing partners who could raise interesting answers towards the above posed bullet points would be in line with the model of participation (Wright et al. 2008) and effective knowledge transfer strategies (La Rocca et al. 2012).

b) With reference to evaluation theories, the stakeholder role and indicators could be advanced according to the following health promotion planning and evaluation cycle (Nutbeam & Bauman 2006) shown in Figure 12. Adapting this approach can be interesting in order to advance the outcome of this thesis. Based on existing knowledge the steps highlighted in green (cf. Figure 12 ) provide recommendations.
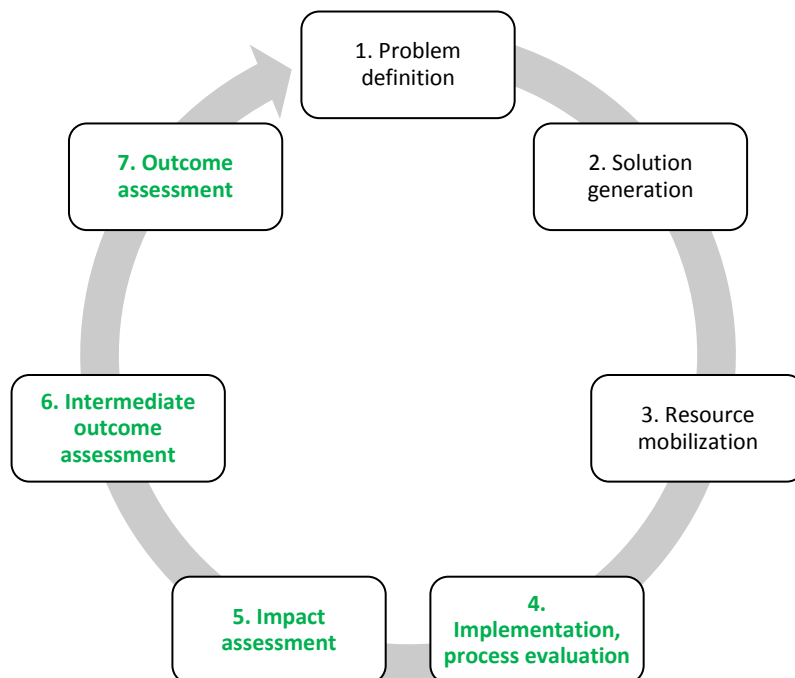


**Figure 12: Health promotion and evaluation cycle**

(Adapted from Nutbeam & Bauman 2006, p.2)

Given the fact that points number 1 to 3 and partly number 4 are done by the present study the following evaluation plan, divided into the process and impact, intermediate and outcome evaluation can evaluate the stakeholder role and stakeholder indicators. Short implications are stated below.

**Process evaluation**

The process evaluation focuses on the question whether indicators are implemented and run as intended. It aims to discover how they work in reality compared to the intention. The process evaluation is an ongoing and continuously procedure (Nutbeam & Bauman 2006, p 41, 50-51, p. 42-43). With the help of the regular and systematic collected data indicators can be adjusted in order to close possible gaps between the intention and the reality.

**Impact, intermediate and outcome evaluation**

The stages impact, intermediate and outcome evaluation aim to assess whether indicators successfully reach the formulated goal – to raise the amount of stakeholder input in HEPA policies. The impact evaluation refers to the short-term outcomes of the indicators. Intermediate and outcome evaluation assess the effect of indicators with respect to the concrete changes that can be reached through the new stakeholder operationalization and stakeholder indicators (Nutbeam & Bauman 2006, p. 31).

# 6. Conclusion

The demand for participants who constructively advance health enhancing physical activity policy process rises steadily. Returning to the keynote of this thesis the consideration of stakeholders is recommended.

In the future the developed stakeholder indicators should be applied and evaluated in practice in order to emphasize the stakeholder role more clearly. Qualitative research can deepen already existing indicators, forward crude indicator themes and raise new dimensions. The consideration of both, research and practice is recommended also for advanced explorations.

Pursuing studies by Watt et al. (2012) who have published promising protocols are of particular interest. Here, the need to include stakeholders into policy making processes was highlighted and outcomes will be informative to understand, develop and evaluate processes in collaboration with different participants (Watt et al. 2012).

Together with the results of this work a new section of stronger stakeholder involvement in HEPA policies is prepared.

# References

**Adelaide Statement (2010)** "Adelaide Statement on Health in All Policies moving towards a shared governance for health and well-being", WHO, Government of South Australia, Adelaide

**Barwick M.A., Peters J., Boydell K**. (2009) "Getting to Uptake: Do Communities of Practice Support the Implementation of Evidence-Based Practice?", J Can Acad Child Adolesc Psychiatry, 18:1

**Baum F.** (2002) "The New Public Health", Oxford University Press South Melbourne, Second Edition

**Beeckman D., Clays E., Van Hecke A., Vanderwee K., Schoonhoven L., Verhaege S.** (2012) "A multifaceted tailored strategy to implement an electronic clinical decision support system for pressure ulcer prevention in nursing homes: A two-armed randomized controlled trial", Int J Nurs Stud, doi: 10.1016/j.ijnurstu.2012.09.007

**Bell E.** (2009) "Research for Health Policy", Oxford University Press, Oxford

**Bogner A., Littig B., Menz W.** (2009) "Experteninterviews. Theorien, Methoden, Anwendungsfelder, Verlag für Sozialwissenschaften", 3. Grundlegend überarbeitete Auflage, Wiesbaden

**Bornstein D.B., Pate R.R., Pratt M.**(2009) "A Review of the National Physical activity Plans of Six Countries", J Phys Activ Health, 6(2): 245-264

**Bortz J., Döring N.** (2006) "Forschungsmethoden und Evaluation für Human- und Sozialwissenschaftler", Springer Medizin Verlag, 4th edition, Heidelberg

**Boyko J.A., Lavis J.N., Abelson J., Dobbins M, Carter N.** (2012) "Deliberative dialogues as a mechanism for knowledge translation and exchange in health systems decision-making", Social Science & Medicine 75 1938-1945

**Brugha R., Varvasousky Z.** (2000) "Stakeholder analysis: a review", Health Policy Plann; 15(3) 239-246

**Buchan H., Lourey E., D'Este C., Sanson-Fisher R.** (2009) "Effectiveness of strategies to encourage general practicioners to accept an offer of free access to outline evidence-based information: a randomised controlled trial", Implement Sci; 4:68, doi:10.1186/1748-5908-4-68

**Canadian Institute for Health Information** (1999) "National Consensus Conference on Population Health Indicators Final Report", Ottawa, Ontario

**CIHR - Canadian Institute of Health Research** (2012) "About Knowledge Translation", website http://www.cihr-irsc.gc.ca/e/29418.html, last accessed: 11/23/2012

**Carcasson M.** (2009) "Beginning with the End in Mind: A Call for Goal-Driven Deliberative Practice", Center for Advances in Public Engagement, occasional paper No.2

**Cavill N., Kahlmeier S., Racioppi F.** (2006) "Physical activity and health in Europe: evidence for action", WHO Regional Office for Europe, Denmark

**Ciliska D., Thomas H., Buffett C.** (2010) "An Introduction to Evidence-Informed Public Health and A Compendium of Critical Appraisal Tools for Public Health Practice", National Collaborating Centre for Methods and Tools, School of Nursing, McMaster University, Ontario

**Das P., Horton R.** (2012) "Rethinking our approach to physical activity", Lancet Vol. 380 Issue 9838: 189 – 190

**Daugbjerg S.B., Kahlmeier S., Racioppi F., Martin-Diener E., Martin B., Oja P, Bull F.** (2009) "Promotion of Physical Activity in the European Region: Content Analysis of 27 National Policy Documents", J Phys Activ Health; 6, 805-817

**Davies H.T.O., Nutley S.M., Smith P.C.** (2000) "What works? Evidence-based policy and practice in public services", The Policy Press, Bristol, UK

**Di Noia J., Schwinn T.M., Dastur Z.A., Schinke S.P.** (2003) "The relative efficacy of pamphlets, CD-ROM, and Internet for disseminating adolescent drug abuse prevention programs: an exploratory study", Prev Med; 37, 646-653

**Dobbins M., Hanna S.E., Ciliska D., Manske S., Cameron R., Mercer S.L., DeCorby K., Robeson P.** (2009) "A randomized controlled trial evaluating the impact of knowledge translation and exchange strategies", Implement Sci, 4:61, doi: 10.1186/1748-5908-4-23

**Dobbins M., DeCorby K., Twiddy T.** (2004) "A Knowledge Transfer Strategy for Public Health Decision Makers", Wordlv evid-based nu, 1(2): 120-128

**European Commission** (2013) "Public Health Indicators", Homepage of the European Commission: http://ec.europa.eu/health/indicators/policy/index_en.htm. Last accessed 31.05.2013

**Fisher B.** (2008) "The Importance of Context in Understanding Behavior and Promoting Health", Ann. behav. med.35:3–18

**Fisher F., Miller G., Sidney M.S.** (2007) "Handbook of Public Policy. Analysis Theory, Politics, and Methods", CRC Press, Taylor & Francis Group, Boca Raton, USA

**Fortselund L., Bradley P., Forsen L., Nordheim L., Jamtvedt G., Bjøndal A.** (2003) "Randomised controlled trial of a theoretically grounded tailored intervention to diffuse evidence-based public health practice", BMC Med Edu, 3:2, doi:10.1186/1472-6920-3-2

**Foster C**. (2000) "Guidelines for health-enhancing physical activity programmes", The European Network for the Promotion of Health-Enhancing Physical Activity, Tampere, Finnland

**Friedman A.L., Miles S.** (2009) "Stakeholders Theory and Practice", Oxford University Press, New York

**Gagliardi A.R., Fraser N., Wright F.C., Lemieux-Charles L., Davis D.** (2007) "Fostering knowledge exchange between researchers and decision-makers: Exploring the effectiveness of a mixed-method approach", Health Policy 86, 53-63

**Hanbury A., Wallace L., Clark M.** (2009) "Use of a time series design to test effectiveness of atheory-based intervention targeting adherence of health professionals to a clinical guideline", Br J Health Psychol, 14, 505-518

**Hawe P., Shiell A., Riley T.** (2004) "Complex interventions: how "out of control" can a randomised controlled trial be?", BMJ;328:1561–3

**Hämäläinen R.M., Villa T., revised and accepted by the REPOPA consortium** (2013) "Evidence-informed policy making to enhance physical activity in six European Countries", unpublished work package one report, submitted to the European Commission

**Heath G.W., Parra D.C., Sarmiento O.L., Andersen L.B., Owen N., Goenka S., Montes F., Brownson R.C.** (2012) "Evidence-based intervention in physical activity: lessons from around the world", Lancet; 380:772-81

**Hunt J., Thompson B.** (2002) "Experiments in Public/Stakeholder Consultation and Dialogue", RISCOM report II, Deliverable 4.7, Lancaster University, Lancaster UK

**Jack S.M., Dobbins M., Sword W., Novotna G., Brooks S., Lipman E.L., Niccols A.** (2011) "Evidence-informed decision-making by professionals working in addiction agencies serving women: a descriptive qualitative study", Subst Abuse Treat Prev Policy; 6:29, doi:10.1186/1747-597X-6-29

**Kahn EB, Ramsey LT, Brownson RC, Heath GW, Howze EH, Powell KE, Stone EJ, Rajab MW, Corso P** (2002) "The effectiveness of interventions to increase physical activity: a systematic review." Am J Prev Med; 22(4):73-107

**Kilpelainen K., Aromaa A. and the European Community Health Indicators Monitoring group** (2008) "European Health Indicators: Development and initial implementation. Final report of the ECHIM project", National Public Health Institute (KTL) and European Union, Helsinki, Finland

**Kirchhoff S., Kuhnt S., Lipp P., Schlawin S.** (2003) "Der Fragebogen – Datenbasis, Konstruktion und Auswertung", 3., überarbeitete Auflage, Verlag für Sozialwissenschaften, Wiesbaden

**Kohl H.W., Craig C.L., Lambert E.V., Inaue S., Alkandari J.R., Leetongin G, Kahlmeier S.** (2012) "The pandemic of physical inactivity: global action for public health", Lancet Volume 380, Issue 9838, Pages 294 – 305

**Kothari A., Birch S., Charles C.** (2005) "Interaction and research utilisation in health policies and programs: does it work?", Health Policy; 71; 117-125

**Krippendorff K.** (2013) "Content Analysis: An Introduction to Its Methodology", Sage Publications, 3rd edition, United Sates

**Lamnek S.** (1995) "Qualitative Sozialforschung" - Band 1 Methodologie. 3., korrigierte Auflage, Psychologie Verlags Union, Weinheim

**Lavis, J. N., Boyko, J. A., Oxman, A. D., Lewin, T. J., & Fretheim, A.** (2009) "SUPPORT tools for evidence-informed health policymaking (STP) 14: organising and using policy dialogues to support evidence-informed policymaking". Health Res Policy Sys; 7(1), S14. doi:10.1186/1478-4505-7-S1-S14

**Lavis J.N., Robertson D., Woodside J.M., McLeod C.B., Abelson J.** (2003) "How Can Research Organizations More Effectively Transfer Research Knowledge to Decision Makers?", Milbank Q; 81(2), 221-248

**Lavis J.N., Ross S.E., Hurley J.E., Hohenadel J.M., Stroddart G.L., Woodward C.A., Abelson J.** (2002) " Examining the Role of Health Services Research in Public Policymaking", Milbank Q; 80(1): 125-54

**LaRocca R., Yost J., Dobbins M., Ciliska D., Butt M.** (2012) "The effectiveness of knowledge translation strategies used in public health: a systematic review", BMC Public Health, 12:751

**Lomas J., Brown A.** (2009) "Research and Advice Giving: A Functional View of Evidence-Informed Policy Advice in a Canadian Ministry of Health", Milbank Q; 87(4), 903-926

**Mayring P.** (2008) "Qualitative Inhaltsanalyse. Grundlagen und Techniken", Belz Verlag, 10. Auflage Weinheim und Basel

**McKibbon KA, Lokker C, Wilczynski NL, Ciliska D, Dobbins M, Davis DA, et al** (2010) "A cross-sectional study of the number and frequency of terms used to refer to knowledge translation in a body of health literature in 2006: a Tower of Babel?" Implement Sci 5:16–27

**Mitchell R.K., Agle B., Wood D.J.** (1997) "Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts", Acad Manage Rev; 22(4), 853-886

**Nutbeam, D., Bauman A.** (2006) "Evaluating health promotion in a nutshell". McGraw-Hill Australia. North Ryde

**Nutley S.M., Walter I., Davies H.T.O** (2007) "Using evidence. How research can inform the public services". The Policy Press, Bristol

**Oja P, Bull FC, Fogelholm B, Martin BW** (2010) "Physical activity recommendations for health: what should Europe do?" BMC Public Health, 10:10. doi:10.1186/1471-2458-10-10

**Oldridge N.B.** (2008) "Economic burden of physical inactivity: healthcare costs associated with cardiovascular disease". Eur J Cardiovasc Prev Rehabil; 15(2):130-139

**Oliveira-Brochado A., Oliveira-Brochado F., Quelhas Brito P.** (2010) "Effects of personal, social and environmental factors on physical activity behavior among adults", Rev. Saúde Pública; 28(1)7-17

**Oxman AD, Lavis JN, Lewin S, Fretheim A** (2009): "SUPPORT Tools for evidence-informed health Policymaking (STP). 1. What is evidence-informed policy making?", Health Res Policy Syst. 2009, 7(Suppl 1):S1

**Russel M.W., Campbell L. A., Kisely S., Persaud D.** (2011) "The development of community health indicators: a district-wide approach", Chron Dis Can; 31(2), 65-70

**REPOPA Sharepoint** (2013) "Work package 1 documents", shared documents by the REPOPA consortium, unpublished raw materials and basis for the report by Hämäläinen et al. (2013)

**Sallis J, Glanz K.** (2009) "Physical activity and Food environments: solutions to the obesity epidemic." Milbank Quart; 87(1): 123-54

**Sallis JF, Floyd MF, Rodríguez DA, Saelens BE** (2012) "Role of built environments in physical activity, obesity, and cardiovascular disease", Circulation; 125(5):729-37

**Satterfield J.M., Spring B., Brownson R.C., Mullen E.J., Newhouse R.P., Walker B.B., Whitlock E.P.** (2009) "Toward a Transdisciplinary Model of Evidence-Based Practice", Milbank Quart; 87(2): 368–390

**Schardt C., Adams M.B., Owens T., Keitz S., Fontelo P.** (2007) "Utilization of the PICO framework to improve searching PubMed for clinical questions", BMC Med Inform Dec Mak; 7(16) doi:10.1186/1472-6947-7-16

**Schmeer K.** (1999) "Guidelines for Conducting a Stakeholder Analysis", Bethesda, MD: Partnerships for Health Reform, Abt Associates Inc.

**Schmid TL, Pratt M, Witmer L. A** (2006) "A framework for physical activity policy research", J Phys Act Health.;3(1):S20–S29

**Stetler C. B., Ritchie J. A., Rycroft-Malone J., Schultz A. A., Charns M.P.** (2009) "Institutionalizing evidence-based practice: an organizational case study using a model of strategic change", Implement Sci; 4(78): doi:10.1186/1748-5908-4-78

**Stone E.G., Morton S.C., Hulscher M.E., Maglione M.A., Roth E.A., Grimshaw J.M., Mittman B.S., Rubenstein L.V., Shekelle P.G.** (2002) "Interventions That Increase Use of Adult Immunization and Cancer Screening Services: A Meta-Analysis" Ann Intern Med. 136:641-651

**The Lancet** (2013) "Series on physical activity", http://www.thelancet.com/series/physical-activity, last accessed: 03.06.2013

**USEPA- Unites Stated Environmental Protection Agency** (2001) "Improved science-based environmental stakeholder processes- a commentary by the EPA science advisory board", Washington

**US Department of Health & Human Service** (2008) "2008 Physical activity guidelines for Americans. Be Active, Healthy, and Happy", http://www.health.gov/paguidelines, last accessed 25.04.2013

**Van Aken J., Berends H., Van der Bij H.** (2012) "Problem solving in organizations – a methodological handbook for business and management students", 2nd edition, Cambridge University Press, Cambridge

**Wade S.O**. (2004) "Using intentional, values-based dialogue to engage complex public policy conflicts". Conflict Resol. Q., 21, 361-379

**Walt G.** (2004) "Health Policy - An Introduction to Process and Power. People, governments and international agencies – who drives policy and how it is made", Witwatersrand University Press, Johannesburg, 7th Edition

**Watt A.M., Hiller J.E., Braunck-Mayer A.J., Moss J.R., Buchan H., Wale J., Riitano D.E., Hodgetts K., Street J.M., Elshaug A.G.** (2012) "The ASTUTE Health study protocol: Deliberative stakeholder engagements to inform implementation approaches to healthcare disinvestment", Implement Sci; 7(101) doi: 10.1186/1748-5908-7-101

**Weiss C.H.** (1979) "The many meanings of research utilization", Public Admin Rev; 39(5): 426-31.

**Westenhöfer J., Schmoecker M., Deneke C., Brunnett R., Hahn K., Schillmöller Z.** (2009) "SAĞLIK. Ernähren, Bewegen und soziale Teilhabe im Stadtteil fördern: Sozialraumorientierte Gesundheitsförderung älterer Frauen und Männer mit türkischem Migrationshintergrund in Hamburg", unpublished research proposal, Hamburg University of Applied Sciences

**WHO** (2013a) "Health topics physical activity", Homepage:
http://www.who.int/topics/physical_activity/en/, last accessed: 03.06.2013

**WHO** (2013b) "Ottawa Charter for Health Promotion, 1986", Homepage:
http://www.euro.who.int/de/who-we-are/policy-documents/ottawa-charter-for-health-promotion,-1986, last accessed 16.07.2013

**WHO** (2012) "Global Observatory Data Repository", Homepage of the World Health Organization:
http://apps.who.int/gho/data/#, last accessed: 12.02.2013

**WHO** (2010) "Global recommendations on physical activity for health", World Health Organization, Switzerland

**WHO** (2009) "Global health risks. Mortality and burden of disease attributable to selected major risks", Geneva

**WHO** (2005) "Bridging the "Know-Do" Gap Meeting on Knowledge Translation in Global Health". World Health Organization, Geneva, Switzerland

**WHO** (2001a) "Evidence for Health Policy – Glossary", World Health Organization Homepage:
http://www.who.int/health-systems-performance/docs/glossary.htm#indicator last accessed: 31.05.2013

**WHO** (2001b) "World Medical Association Declaration of Helsinki. Ethical Principles for Medical Research Involving Human Subjects", Bulletin of the World Health Organization, 79(4), 373-374

**Wright M., Block M., v. Unger H.** (2007) "Stufen der Partizipation in der Gesundheitsförderung", Gesundheit Berlin, Dokumentation 13. bundesweiter Kongress Armut und Gesundheit, Berlin

**Wright M., Block M., v. Unger** (2008) "Partizipative Qualitätsentwicklung in der Gesundheitsförderung bei sozial benachteiligten" Homepage: http://www.partizipative-qualitaetsentwicklung.de/partizipation.html last accessed: 03.08.2013

**Yen, I. H., Syme S. L.** (1999) "The Social Environment and Health: A Discussion of the Epidemiologic Literature", Annu. Rev. Public Health; 20:287–308

**Zwarenstein M., Reeves S.** (2006) "Knowledge Translation and Interprofessional Collaboration: Where the Rubber of Evidence-Based Care Hits the Road of Teamwork", J Contin Educ Health Prof; 26: 46-54

# Appendix

## 1. Summary of local WP 1 cases

| Country | Policy name & City | Summary & main objective |
|---|---|---|
| Denmark | "Healthy Together", Odense (2010-2011) | Along the keynote "to play is to live" the policies' vision is to shape the city in order to live easily and naturally healthy together. The main objective to increase life expectancy and lives free of illness or disability for everyone and especially for vulnerable groups will be targeted through six cross-sectional areas. Three of them, namely greater equity in health, urban space to promote healthy choices and the easy choice is the healthy choice are aspects meeting the HEPA principles. |
| | "Long live Copenhagen" Copenhagen City's Public Health Policy (2011-2014) | The public policy "Long Live Copenhagen" targets all citizens in Copenhagen and especially puts a focus on vulnerable groups. Along the target to strengthen health in general physical activity as a main contributor to health is highly prioritized. "Copenhagen should be an international metropolis for green growth and quality of life". The following goals are stated in need to be promoted in the 4 four time span: physical activity, smoking, alcohol and self-assessed health. Thereby the "share of young people in upper secondary school who live a physically active life must increase from 23% to 30% (500 more than in 2011)" and "the share of Copenhageners who live a physically active life must increase from 74% to 82% (35000 more than in 2011)". |
| | "The Sports and Physical Activity Policy", Esbjerg (2011-2014) | The policy in the municipality of Esbjerg deals with Sports and physical activity in both elite and non-elite activity. Along the following six goals the citizens should be accompanied with sports and activity through every phase of their live: physical environment, visibility, health promotion, non-elite sport, talent development and elite sport. |
| Finland | Lahti health enhancing physical activity strategy 2007 | The health enhancing physical activity strategy in Lahti was developed in 2007 along the vision that "everyone should get the possibility to participate and access to physical activity services". Especially, the own responsibility of citizens will be addressed to create sustainable health promotion pathways. Therefore, the skills and knowledge on active lifestyles and well-being were trained among service provider (social and health sector), risk groups were supported and collaborations across the city were strengthened. |

| Netherlands | "Youth on healthy weight" JOGG (2010-2015) | The project JOGG (*Jongeren Op Gezond Gewicht*) is a national strategy which will be implemented on local level. It provides a national framework adaptable and modifiable to local needs. Along the overall aim to stabilize but also to decrease the prevalence of overweight and obesity among youth a linkage between care and prevention will be facilitated. The implementation is planned along collaborations of public and private units, the use of social marketing, the application of research evidence, monitoring and evaluation. |
|---|---|---|
| Italy | "Municipaliadi" Rome (2011-2012) | In the 15th Municipality of Rome the policy "Municipaldi" aims to promote sport and physical activity among youth in order to accompany their growth and education. Children as future citizens are therefore emphasized as a target group to reach as many people across sectors. Present but also future lifestyle will be targeted. Through objectives such as the "promotion of wellbeing and the prevention of loneliness" children will be addressed to be physically active in a socialized manner. The action takes place on a very local level and is therefore implemented in a more comprehensive policy across Rome. |
| Romania | "The protocol for organizing sport activities for children" Cluj County (2011-2012) | The protocol for organizing sport and activity targets to encourage children in sports and all activities referred to sports including logistic prerequisites and education in the community of Cluj County. The main objective is therefore to enhance physical activities and sports through all stages of a children's life – pre-school, primary and secondary school. Activities are structures along competitions in e.g. football. Outcomes next to the enhanced activity will be the increase of personal development, social strengthening and increased healthy lifestyles. |
| UK | Herefordshire Local Transport Plan 2 (2012-2015) | The nationally guided local transport plan policy in Herefordshire and wider rural areas aims to provide prerequisites that promote all citizens towards an active travel such as walking and cycling on a routine base. The balance of road use, public transport and space for future developments is pursued. Action will take place by providing safe lanes for cyclists and pedestrians and reducing the drawbacks that prevent people from activity. The stated objectives are the development of networks between different disciplines of the economy, housing and environmental experts. In collaboration the reduction of car journeys, the daily support of physical activity among citizens and visitors and the use of public, safe transportation will be encouraged in order to improve health and lower the amount of air pollution. |

**Table 31: Summary of local work package 1 cases**

REPOPA Sharepoint (2013)

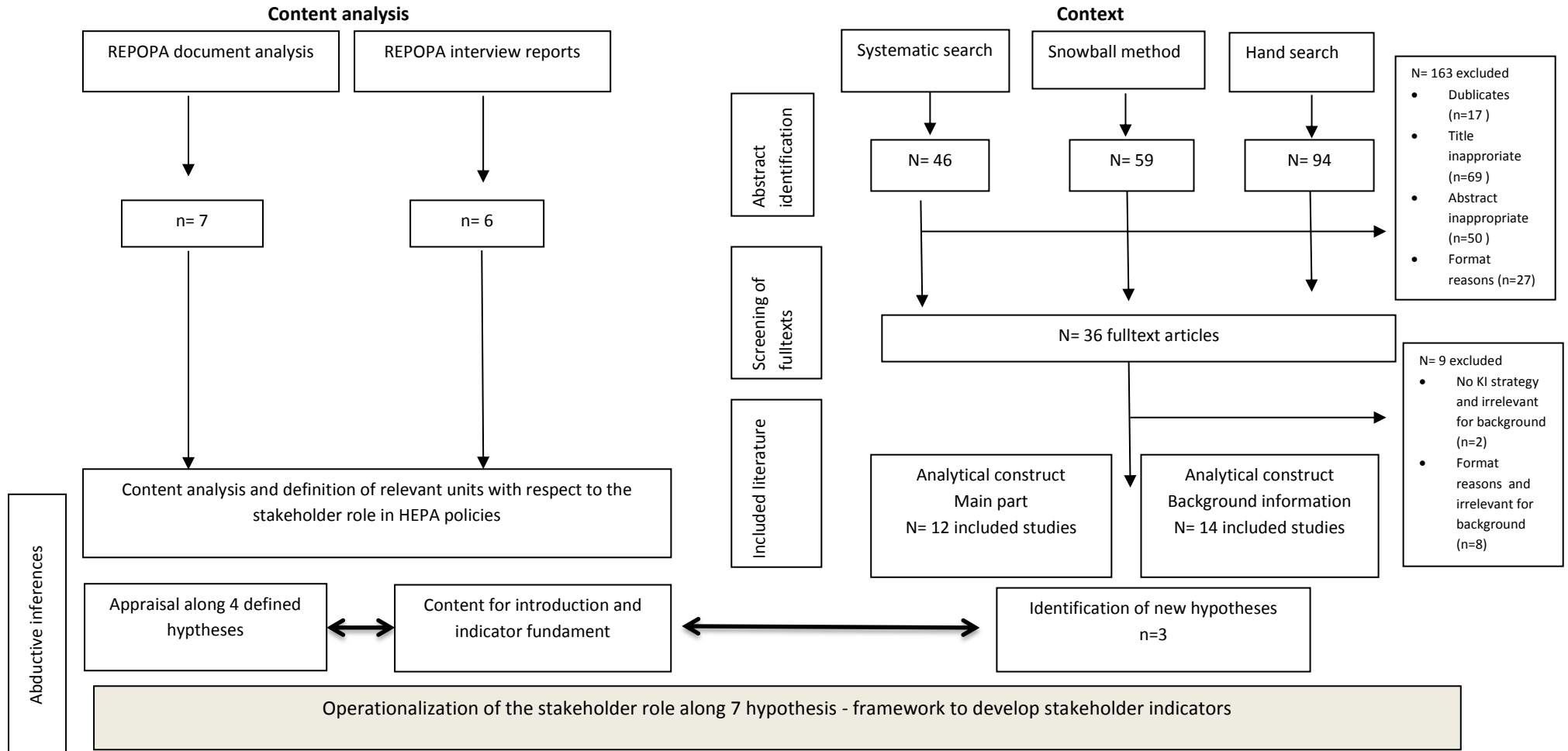# 2. Flow diagram of the entire data set



**Figure 13: Detailed overview of the entire data**

# Declaration of independent work

"I hereby declare that I wrote this thesis without any assistance and used only the aids listed. Any material taken from other works, either as a quote or idea, have been indicated under 'References'".

Hamburg, August 19th 2013

Anne Wiechmann