Improving Urban Knowledge Sharing by Analysing Health in All Policies on an Urban Level

Ishak Özdemir, Tommy in ‘t Veld, Zedi van Oostrom, Meri Bourhaleb

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Abstract

Health in all Policies, HiAP, is an approach that helps consider health implications of decisions. HiAP within urban environments is important due to the multiple challenges faced within cities, such as pollution, crowding and housing. This has untapped potential when looking at the effect of context variables and the critical conditions for the sustainable implementation of HiAP. The aim of this article is to study these context variables and critical conditions for the sharing of urban HiAP knowledge, with the goal of eventually creating a framework for general urban knowledge sharing. This will be done through a qualitative research approach, where the focus will be on using previous research on HiAP, urban knowledge sharing and policy transfer, to analyse four cases on HiAP within the urban environment.

Through analysing these cases, the following can be concluded. First, context variables heavily influence the focus of HiAP within the urban environment. Second, the key features identified by Leppo et al. (2013) are confirmed regarding the importance for successful HiAP implementation. Third, the involvement of different sectors within HiAP and sufficient funding are necessary for effective implementation and should be added to Leppo et al. (2013) factors. Fourth, and most importantly, transparency and the context surrounding the shared HiAP approaches are necessary for the knowledge sharing of HiAP to be effective.

Introduction

It is clear that neither individual choices nor access to medical care are the sole determinants of health and health disparities. Rather, social, physical, and cultural determinants operating across different environmental levels play a key role in shaping individual behaviours and health outcomes both directly and indirectly, with the daily condition's individuals live, work, and play in and that largely account for our wellbeing. These conditions are in turn shaped by political, social, and economic forces. Perhaps unsurprisingly, health inequities persist not just on a global scale, but also within communities and larger societies. This is illustrated by the social gradient in health, which shows that across societies, the disadvantaged live shorter and unhealthier lives, with social class and levels of income and education linking to quality of life and life expectancy, as well as a range of other adverse health outcomes (Guglielmin et al., 2018; Marmot, 2005; Wernham & Teutsch, 2015). Marmot (2005) notes how both material and psychosocial needs are important to this gradient, as well as the major role played by social determinants of health in the onset of and response to communicable and non-communicable disease alike.

Nowhere else is the challenge for healthier communities more pronounced than in cities, where issues of pollution, housing, concentrated poverty, violence, and changes in economic base converge, impacting the urban built and social environment and in turn population health (PAHO & SALURBAL, 2019; Wernham & Teutsch, 2015). City governments are increasingly looking towards the Health in All Policies (HiAP) approach for public policy to structurally address these social determinants across different sectors, including education, transportation, housing, and urban planning. In short, HiAP aims to improve health equity and population health

through systematically considering the implications decisions have on health and the health system, seeking synergies and avoiding harmful health impacts (Guglielmin et al., 2018; Wernham & Teutsch, 2015; WHO, 2013).

HiAP has been implemented worldwide on national as well as on local or regional scale. Sharing and health organisations, such as the BSO and the WHO and its regional offices, promote collaboration on state- and regional level. Yet there is a lot of untapped potential in regard to knowledge sharing on HiAP to identify critical conditions for sustainable implementation and the effect of different context variables.

The untapped potential of sharing knowledge of HiAP between cities is one example where the lack of urban knowledge sharing plays a significant factor in implementing policies that can have significant positive societal impact, especially when looking at the Sustainable Development Goals and accomplishing them (Closer Cities, 2021). Researching the factors in play, when looking at sharing knowledge of HiAP between cities, will help create a framework for urban knowledge sharing. This research will therefore aim to accomplish the following goal through the following research questions:

Primary Research Question:

- How can city governments enable knowledge sharing on city-level HiAP approaches?

Sub Questions:

- What different approaches exist to the implementation of HiAP in urban contexts?
- What could be the critical conditions for sustainable implementation of HiAP within the urban environment?

Through a case study analysis, this paper will attempt to answer the above mentioned research questions. The case study will consist of four cities that differ in size, political and cultural aspect. The cases will be compared in regards to the implementation of HiAP and their usage of urban knowledge sharing. To ensure comparability, all cases are divided in three sections: a general introduction to the city, the policy arena and the HiAP approach and sharing and coalitions. This research aims to find differences as well as similarities in order to discover general patterns for the implementation of HiAP and shed light on the difficulties and benefits cities experience by sharing knowledge.

Theoretical framework

HiAP and the SDGs

Although challenges to implementation are relevant to any policy, HiAP relies on the active involvement of several sectors for successful implementation. Recognizing what conditions are conducive to the implementation of HiAP is therefore important, especially as recent history suggests that the implementation of HiAP varies across contexts to reflect different local structures (Leppo et al., 2013). However, Leppo et al. (2013) have identified factors that aid in successful implementation on both a national and local level that operate across different contexts. These are highlighted in table 1 below.

Table 1

Condition Necessary to Conduct HiAP at the National and Local Level

1. Supportive context with:	• Political will • Legal backing • Governance structures and processes for intersectoral communication and implementation

2. Resources and skills to:	• Analyse impacts of major policies and policy proposals from a health perspective • Communicate and negotiate across sectors • Implement policy decisions • Follow up policies' impacts on determinants of health and their distribution
3. Information on:	• Health situation and causes of ill-health, including distributional data on health inequities • Potential health threats and exposures • Effective policies/interventions from the health perspective, policy trends and proposals being developed across sectors, policy processes and actors beyond the health sector involved

Extracted from Leppo et al. (2013)

City governments are increasingly looking towards HiAP to work towards attaining the SDGs. Ramirez-Rubio et al. (2019) found at least 48 SDG targets corresponding to 15 SDGs to be relevant to urban health, with all of these being interconnected. Previous analyses highlight the complementary nature of HiAP and the SDGs in systematically considering sustainable development, with the SDG framework providing opportunities for the formulation and implementation of HiAP approaches. Noted are the SDGs providing a platform for intersectoral collaboration, as well as addressing issues of policy coherence and the importance of extensive stakeholder participation and collaboration in governance. In short, the SDGs provide a framework for addressing health-related sustainable development – and HiAP approaches can help in guiding this cross-sector and multi-actor strategy (Ramirez-Rubio et al., 2019).

Urban Knowledge Sharing

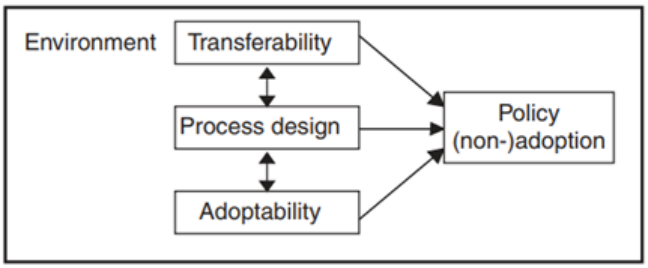
When looking at HiAP for the betterment of the Urban environment, urban knowledge sharing is key. By definition, urban knowledge sharing is the process of knowledge development , explication and dissemination of initiatives that address urban challenges to the benefit of the urban society (Closer Cities, 2021 - pg. 3). This process can take place in a multitude of sectors within the urban environment such as healthcare, mobility, and energy usage. The effectiveness of urban knowledge sharing and the process on how knowledge is shared, are dependent on three main aspects: external factors, internal factors, and the result. The external factors focus on the context where the sharing takes place, thus the actors involved, the resources used and the context in which things are shared. The result looks at how knowledge is processed when being shared and applied, and to what extent the knowledge shared affects the environment to which it is shared. The internal factors focus on the transferability of knowledge, and can be compared to the concept of policy transfer in the section below (Closer Cities, 2021)

Policy Transfer

Policy transfer can be defined as a process where knowledge about certain policies or other arrangements at a specific time or place is used in the development or arrangements at another time or place (Moalim, n.d.). Following a systematic literature review that included 180 articles, Minkman et al. (2018) proposed a simple conceptual framework that can be used to better understand the mechanisms underlying the policy transfer process. It consists of four clusters of factors that influence the (non-)adoption of policy, also referred to as building blocks. The following section elaborates on this framework and narrows down to relevant factors for analysis in the context of this study.

Figure 1

Simple framework for policy transfer (extracted from Minkman et al. (2018))



Environmental factors, which play an important role in all phases of the process, form the first building block. These can be subdivided into the policy arena, the subsystem and the general context. The policy arena broadly refers to who forms the government and the subsequent political climate. This shapes the autonomy of actors, but also whether the timing for the introduction of a transferable policy is favourable or not. The subsystem refers to the availability of alternative policy solutions, as well as the institutional and political context and underlying mechanisms of competition. Finally, the general context, which is shaped by biophysical, cultural and socio-economic conditions, determines the boundaries for policy transfer actors. Minkman et al. (2018) suggest that the policy arena might be key to understanding policy transfer processes, as it is most prevalent in related literature, indicating that this is a decisive enabler.

The transferability of the policy is the second building block, with related factors dominating early stages of the transfer process. The ability of the source actor to convey policies, which is impacted by the source actor's image and reputation, plays a primary role. Additionally, the existing relations between source, adopting and third-party actors are important, with e.g. membership of international organisations and policy networks aiding in establishing transfer processes. Next, there is the tolerance of the adopting actor, which is determined by their

receptivity and in part mediated by decision-making power. Transferability is further determined by policy features and normative fit, with policies that are flexible and have low context dependency increasing the range of possible applications. Policies with a reputation of proven success and efficacy are particularly favoured as transfer objects. Overall, normative fit and policy reputation seem to be key factors in studies on policy transfer, rather than e.g. policy characteristics.

Process design forms the third building block, referring to interactions between transfer actors as shaped by a particular process. Understanding relations between all actors, recognizing and building coalitions between key actors and facilitating broad consensus are all important to successful policy transfer. Additionally, adapting policies to local contexts and having an understanding of cultural differences between actors facilitate appropriate policy transfer. Understanding whether a policy is being imitated, adapted or used as an inspiration are further important factors. Overall, actor relations, both on an individual and network- or coalition-level, are most prominently featured in the literature.

Adoptability of the transferred policy is the final building block. In determining policy suitability and adaptability, this building block refers to the institutional context in which the policy is adopted, highlighting the importance of the institutional fit besides the normative fit of a policy. Policies with a fixed objective but high flexibility in implementation will be adopted more easily in contexts with a lesser normative or institutional fit. The adopting capacity constitutes the capacity, both on an organisational and expert level, to search and implement external policies, as well as the evaluation of implemented policies. An additional consideration is the path dependency created by previous policy decisions, which links to the ability and willingness of the adopting actor to either continue with or change the policy course. The most

cited factors regarding adoptability are related to the compatibility of the transferred policy with respect to its integration in institutional structures and its ability to be embedded in existing policy paths.

Minkman et al. (2018) distinguish between three types of adoption or non-adoption of the transferred policy; successful adoption, formal adoption and non-adoption. Successful adoption refers to policy-makers adopting the policy, as well as achieving political goals. Non-adoption describes all transfers that were either left uninitiated or eventually aborted. Formal adoption refers to policy transfers where policy is formally adopted, but not implemented or enforced. Important to consider is that a lack of compliance can be underpinned by lacking resources and infrastructure, rather than willingness to take action, especially in developing countries. Factors like resources are therefore important facilitators when present, but acts as barriers when absent. Overall, the review suggests that the policy arena and related concepts such as normative and institutional fit, as well as policy reputation, are decisive enablers for policy transfer. This means that in considering and explaining policy transfer, factors such as actors (on both an individual- and coalition-level), the respective political situation and institutional and normative dimensions are key.

Research Methods and Design

To answer the previously mentioned research questions, this paper will use a qualitative research approach, as this research focuses on an inductive rather than deductive method Furthermore, no numerical or statistical analysis will be done (Rutberg & Bouikidis, 2018; Campbell, 2014). Additionally, for this research it is important to take into consideration the context of the HiAP approach, which is the main objective in qualitative research (Boeije, 2010).

The data will be collected through a case study design. This research will not use the cases to describe the phenomenon of urban knowledge sharing regarding HiAP, but rather to explain the phenomenon. This case study will focus on theory building. Through this theory, it will be concluded what the boost and barriers are for urban knowledge sharing regarding HiAP and help improve upon the current knowledge on the boost and barriers for urban knowledge sharing in general. The four cities, Medellín, São Paulo, Rotterdam and Richmond, CA, will be analysed on two aspects: how they implement Health in All Policies and to what extent the cities make use of urban knowledge sharing regarding Health in All Policies.

Additionally, the chosen cities are diverse when it comes to ethnicity, social-economic status, and income. Since more diverse cities can result in more inequalities, thus making the importance of HiAP more important (Thomas, 2018).

Moreover, all cities are sharing urban knowledge on a different level. Rotterdam, as a municipality, shares a lot of knowledge within the Netherlands as a forerunner in innovation, but not yet regarding HiAP (Burdorf, n.d.; ESSB, 2021; Gemeente Rotterdam, 2019). Richmond is not yet sharing knowledge on HiAP on an international level (Health in All Policies | Richmond, CA - Official Website, n.d.). Lastly, São Paulo and Medellín are more engaged in urban knowledge sharing regarding public health, which can be seen in their participation in PAHO initiatives (PAHO, 2015; PAHO & SALURBAL, 2019).

Sampling Method

This paper will analyse the implementation of HiAP and use of urban knowledge sharing in four cities. Generally, the sample size of qualitative research is small as the focus is to analyse the case in depth rather than providing a global overview of many different cities (Vasileiou et al., 2018). The cities were chosen based on a few requirements. For the overall sample, cities

need to be from different parts of the world. This ensures a wider scope and enables the evaluation of different city contexts, thus aiding in determining critical conditions by identifying facilitating similarities between the different approaches. Next, to evaluate diverse yet effective approaches to HiAP, the cases preferably differ in terms of government structure and strategy. Finally, the selected cities should vary in size, so as to better account for the different approaches taken across heterogeneous contexts. Following these criteria, the cities Sao Paolo, Brazil; Medellín, Colombia; Rotterdam, The Netherlands and Richmond, CA, USA were selected.

Table 2

Information on Selected Cases

	Country, Continent	***Population (density)***	***Programme name***	***Initiators***	***Knowledge sharing***
Richmond, CA	*United States, North America*	*103,701 (1420/km2)*	*Health in All Policies or healthy public policy*	*Community activists*	*Building Healthy Communities*
São Paulo	*Brazil, South America*	*12,400,232 (8005/km2)*	*Green and Healthy Environment Programme (PAVS)*	*Secretariat of Green and Environment (Municipality)*	*PAHO, WHO*
Medellín	*Colombia, South America*	*2,569,007 (6925/km2)*	*Health in All Policies*	*Secretariat of Health (Municipality)*	*PAHO, Boundary Sharing Organisations*
Rotterdam	*The Netherlands, Europe*	*651,157 (2009/km2)*	*Gezond010, Rotterdam vitale*	*Municipality of Rotterdam*	*Gezond in de Stad, Healthy Cities*

			stad		*Network*

Results & Discussion

The comparison of the four cases will be done through three different criteria, HiAP Approach Characteristics, Policy Arena, thus the environment and context, and Sharing & Coalitions. The main results of the case studies can be found in appendix A to D for every individual case.

HiAP Approach Characteristics

First, differences were observed in the main approach to implementation and scope of HiAP programs between cities (for full results per case study, see Appendix A to D). São Paulo and Richmond notably take a relational approach to implementation that centres building trust between government and local communities. In Richmond, for example, HiAP was underpinned by an extensive drafting process that focused on engaging with local community, practitioners and government through workshops to better understand local needs and concerns. This helped gain a localised understanding of the health determinants at play and establish a sense of ownership over health problems in non-health sectors. In São Paulo, the municipality deployed family care-teams consisting of one doctor, one nurse and four to six community health workers in socially vulnerable areas to make primary care more accessible. In a setting with little trust in government, especially among vulnerable groups, this helps build relationships based on trust and allows for the health department to better inform residents. It also allows for government to administer data on health and care. This helps in building reliable datasets that can be used to inform and promote intersectoral action. The cases of São Paulo and Richmond thus suggest that

a relational approach to HiAP implementation might aid in securing political commitment, understanding local problems and promoting intersectoral action.

Richmond and Medellin explicitly express priority concerns, respectively dismantling structural racism and improving child health and infrastructure, whereas São Paulo broadly considers trust and environmental health in their programme. Rotterdam does not state priority concerns, but broadly focuses on improving health and expanding its digital health infrastructure. It is also the only city to stress the ability of citizens to make healthy choices in its HiAP approach. Similar HiAP approaches have been criticised in the literature for failing to fundamentally address policy environments and structures relevant to the whole population. In focusing on affecting behaviours and access to health services, they do not consider the 'causes-of-the-causes-of-the-causes' (Cairney et al., 2021).

Policy Arena

In both Rotterdam and São Paulo, implementation of HiAP came following national HiAP policies (Appendix B; Appendix D). HiAP in Medellín and Richmond was explicitly initiated and implemented on city-level. Both had supportive city governments and relatively progressive left-wing mayors during programme development and implementation. In all cities, HiAP was embedded in existing local policy paths, either national, regional or local level (Appendix A to D). This supports the framework by Minkman et al. (2018) that states the importance of the transferred policy's normative fit in relation to political actors and its ability to be embedded in existing policy paths for policy transfer.

In Richmond, community groups had been the first to call for HiAP and partnered with the government to secure external funding following the fostering of trust. Projects in Medellín,

however, often struggled finding funding. São Paulo faced a similar lack of resources, with many health services being privately owned challenging the integration of HiAP in institutional structures. Resources acted both as facilitators and barriers, with developing cities (Medellín and São Paulo) being limited in compliance to their HiAP policies not due to lacking willingness, but resources, which further endorses the framework by Minkman et al. (2018), which states that a lack of resources, either time, human or financial, can disrupt the adoption phase of policies.

Table 3

General overview of HiAP approach and policy arena

	Project focus	***Initiators***	***Political party***	***Other characteristics***
Richmond	*People of colour*	*Community activist*	*Green*	*Trust building, workshops*
São Paulo	*Poverty*	*Secretariat Green and Environment*	*Democrats*	*Trust building, community health workers*
Medellin	*Children*	*Secretariat of Health*	*Liberal*	*Budget deficiencies*
Rotterdam	*Improving the environment of and for Citizens*	*Municipality*	*Labour*	*Digitalisation*

Sharing & Coalitions

The municipality of Rotterdam engages in sharing on both national and international level and has programs with rather ambitious goals. The results of these programs are not publicly available as of yet. Medellín too is very open about projects and shares these on multiple national and international platforms, but finding the outcomes of these projects is difficult. São Paulo actively shares knowledge in coalitions but documents are rarely available in English or Spanish, and government websites are blocked in some foreign countries. Richmond, on the other hand, relatively engages in the least sharing but is fully transparent about projects, meetings and outcomes, publishing everything from PowerPoints to yearly health equity progress reports on their website. In short, barriers to sharing identified are transparency, language availability and outcome ambiguity. The challenge in sharing HiAP thus seems to lie in the transferability of knowledge, meaning that internal factors to sharing should be considered in HiAP design and implementation (Closer Cities, 2021).

Table 4

Overview of urban knowledge transfer in relation to HiAP

	Accessibility of information	***Sharing coalitions***	***Other instruments***
Richmond	*Open access to all policy documents and government websites*	*None*	*Trust building, workshops*
São Paulo	*Geo-blocked government websites; language barrier*	*PAHO, WHO*	*Trust building, community health workers*

Medellin	*Open access to government websites*	*PAHO, WHO, UNDRR, UNOSSC*	*Living lab*
Rotterdam	*Open access to government websites and policy documents; language barrier*	*WHO, gezond in de stad (national), Healthy Cities Network*	*Digitalisation*

Limitations

As mentioned in the *sampling method*, the cases were selected on heterogeneity regarding government structure, size and context (culture) to determine the similarities across contexts that are the critical conditions as well as to find unique strengths to the approach that can be transferred to other contexts. However, consequently, governments differed in transparency; not all relevant policy documents were accessible for this research. These disparities on what policy documents are and are not disclosed, limit the comparability of the full scope of HiAP between the cities. Similarly, governmental websites from Brazil were not accessible at all from the Netherlands. That meant that for São Paulo our research relied on secondary literature and research from independent knowledge institutions.

Another limit to the sampling method is that the Asian and African perspectives are missing. The former, because of the extremely limited amount of open documentation, the latter because of a limited amount of HiAP cases on a city level.

There were also limitations regarding the gathering of information. Due to the limited amount of time for this research, information was mostly gathered from literature, enhanced with insights from interviews with Public Health and Knowledge Transfer researchers. However, there was no time to talk to professionals from each case to get more primary information.

Secondly, there was a language barrier; not all information was available in Dutch or English, making it more difficult to find detailed information.

Lastly, this study was limited due to a lack of prior research on urban knowledge sharing regarding HiAP. Nonetheless, there is a vast amount of research on policy transfer, which was valuable for this research.

Conclusion

This paper's aim was to provide answers to the following research questions:

Primary Research Question:

- How can city governments enable knowledge sharing on city-level HiAP approaches?

Sub Questions:

- What different approaches exist to the implementation of HiAP in urban contexts?
- What could be the critical conditions for sustainable implementation of HiAP within the urban environment?

First, this case study provided an insight to different possible approaches to HiAP. Cities implement different projects due to the different factors that shape the cities. It is important to look at external factors that shape a city before implementing different projects regarding HiAP. The needs, challenges, opportunities and desires of the external environment need to be taken into account. For example, in Medellin, projects were started to improve infrastructure to health care, in a city such as Rotterdam that would not necessarily be the focus. Medellin is a city where many of its citizens still live in slums, thus health care is not accessible for most of them (Appendix C).

Second, in regards to the critical conditions for implementing HiAP, this research confirms that the three key features shown in table 1 are of high importance should a city want to implement a HiAP approach. In Richmond, for example, it can be seen that even though the initiators were community activists, it was necessary for a governmental body to support their ideas otherwise it would not have been possible to implement the HiAP approach (see Appendix A to D). Nonetheless, this research shows that it is important to receive a supportive context with governance structures; many different sectors and actors have to be involved in order to fully implement a HiAP approach. It can be concluded that without actors such as health care workers, NGOs and civil society, HiAP cannot be implemented sustainably within the urban environment and therefore should be added to the factors Leppo et al. (2013) have identified.

Additionally, HiAP can only sustainably be implemented once different actors and sectors are involved in the process. In all four cases, it can be seen that it is not only the health sector that is involved to ensure health equity. Whether this is through workshops that establish common frameworks and trust, starting projects related to holistic health, or family-based interventions that go beyond just physical health (Appendix, A; B; C; D). However, since there are many different projects put in place in order to achieve health equity, it is important that enough funding is provided by the local and/or national government in order to effectively start and continue all projects.

Lastly and most importantly, regarding the enabling of knowledge sharing surrounding HiAP, it can be concluded that there are many different forms through which cities can share their knowledge (on HiAP). This can happen nationally, internationally, through websites, international organisations or initiatives, webinars and even living labs (Appendix, A; B; C; D). However, it is important to understand that different levels of transparency result in different

levels of effectiveness of sharing. While Medellin was very open about the projects that were started in this city, it was very difficult to find any information on what happened during the projects and what the outcomes were. Therefore, it would be challenging for other cities to learn from Medellin's experience as it is not clear how effective Medellin's projects were. Richmond, on the other hand, was very transparent about every step as all the meetings were published on their website. However, they are not actively sharing their knowledge yet on a wide scale. Nonetheless, the information is very accessible which makes it easier for other actors to understand and learn from what Richmond is doing.

Additionally, it is important that cities need to know more about and understand the context of the provided information. It is impossible for others to fully comprehend the results of projects in a city if it is unclear under which conditions this has happened. This refers back to the framework provided by Minkman et al. (2018), where it can be seen that without the knowledge on the environmental factors, policy transfer becomes impossible. This then shows that policy transferability regarding HiAP can be extremely difficult as it has a high context dependency.

However, this research' aim was to discover how to enable knowledge sharing of HiAP between city governments and not to what extent it can then result in actual policy transfer, and thus this should be researched within a different study.

Subsequently, while it is important for cities to share their knowledge as this could result in more efficient and effective ways of implementing HiAP, it is difficult to achieve this on a world-wide scale. Therefore, it is important that future research explores to what extent urban knowledge can be shared internationally. Would it be beneficial for cities to only keep sharing knowledge in already existing coalitions (e.g. PAHO, WHO, etc.) or is it more effective to share information on a smaller scale which could ensure more information regarding environmental

factors? Second, how beneficial is the sharing of the HiAP approach of a city compared to the projects themselves? Lastly, the factors of transparency and the knowledge of the context should be looked at from the perspective of urban knowledge sharing in general and the effects these have; can transparency and knowledge of the context be barriers or boosts for urban knowledge sharing in general?

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Appendix A: Richmond, California – U.S.A

Introduction

The city of Richmond, located in the U.S. state of California, has a population of over 107,000 residents and is one of the most ethnically diverse cities in the San Francisco Bay Area. In 2010, the city's unemployment rate neared 20 percent, with Richmond consistently ranking as one of the poorest, unhealthiest cities and most violent cities in the U.S. in the early 2000s (Corburn, Curl, & Arredondo, 2014; Corburn, Curl, Arredondo, et al., 2014). Richmond is also an important industrial and shipping centre, with its main employer being a major Chevron oil refinery, the region's largest source of toxic and greenhouse gas pollutants (Corburn & Griffin, 2019; *Fact Sheet*, 2020). This deprivation and subsequent social inequalities are reflected in health outcomes. An example of this is the average life expectancy in the central Richmond ZIP code area, which in 2010 stood at 71.2 years, almost 9 years less than the California state average. In the same year, county health services reported that African American children were hospitalised for asthma at disproportionately higher rates than their white peers (Corburn, Curl, & Arredondo, 2014; Corburn, Curl, Arredondo, et al., 2014; Corburn & Griffin, 2019).

In 2014, Richmond adopted an urban HiAP ordinance and strategy, making it the only city in the U.S. to have done so at the time. Unique about Richmond's HiAP approach is its focus on co-production between citizens, government, and public health experts, with priority concerns being established by community stakeholders, highlighting, and explicitly targeting structural racism as a health determinant. By engaging a wide set of stakeholders in its years-long drafting process, it is noted to have been a major contributor to some significant health equity-promoting actions and shifts in local urban governance practises. Community surveys on indicators of

healthy transformation showed that between 2007 and 2017, unemployment rates decreased from 18.5% to 3.7%, with 60% rather than 36% of residents self-rating their health as good or excellent and 24% rather than 9% reporting their community as a positive place to raise children. In the same period, gun homicides fell from 47 to 15 per 100 000 residents (Corburn, Curl, & Arredondo, 2014; Corburn, Curl, Arredondo, et al., 2014; Corburn et al., 2015; Corburn & Griffin, 2019).

Policy Arena & Health in All Policies Approach

Following a series of toxic releases from the Chevron oil refinery, Richmond community groups mobilised and formed the Richmond Equitable Development Initiative (REDI), a coalition of citizens that aimed to highlight issues of gun violence, health, and environmental justice through community-based research. Starting in 2005, they demanded that health equity be put at the heart of the city's updated General Plan, a long-range urban development plan required by the state of California that forms the blueprint for city policy and land-use over the next 30 years (Corburn & Griffin, 2019). Support for this integration, spearheaded by the newly founded Richmond Health Equity Partnership (RHEP) which united diverse groups of stakeholders to collaborate on issues of health equity, came from the California Endowment. a private, state-wide health foundation that strives for health equity. This led to Richmond including California's first ever local Community Health and Wellness Element (CHWE), or chapter, in their updated General Plan. (Corburn, Curl, & Arredondo, 2014; Corburn, Curl, Arredondo, et al., 2014; Corburn et al., 2015; Corburn & Griffin, 2019, Our Story', n.d).

Key to the CHWE were a set of community workshops held between 2012 and 2013 that aimed to develop a framework to identify drivers of health inequities and the role local policy

might play in working towards greater health equity. Residents, city and school district representatives and members of community organisations collaborated to identify the opportunities and barriers to living healthy lives in their community. Participants defined concepts like health and health equity and identified what specific influences on health Richmond residents from different neighbourhoods and backgrounds experienced. As it became clear that residents experienced multiple and simultaneous influences that impacted on health, participating public health professionals shared the cumulative toxic stressors model, which posits that chronic social and environmental stressors manifest themselves biologically and damage the immune system in multiple ways across the life-course (Corburn, Curl, & Arredondo, 2014; Corburn, Curl, Arredondo, et al., 2014; Corburn et al., 2015; Corburn & Griffin, 2019).

The consensus among stakeholders was that this framework, which suggests an integrated HiAP approach rather than one focusing on a particular risk or behaviour, most closely reflected the lived experience of residents and should inform the city's HiAP strategy. Structural racism emerged as a key cause of the multiple stressors experienced by residents, meaning that supposedly neutral policies and (governance) practises on issues of e.g., housing, employment and transportation produce racialized outcomes that perpetuate historic inequalities and disempower communities of colour. Richmond's HiAP approach therefore focused on generating strategies that could aid the city in dismantling this structural racism and targeting the multiple toxic stressors residents faced (Corburn, Curl, & Arredondo, 2014; Corburn, Curl, Arredondo, et al., 2014; Corburn et al., 2015; Corburn & Griffin, 2019).

Similarly, a set of workshops was held in which staff and directors from different city departments were introduced to the health impacts of their work, with participants' being

encouraged to consider themselves ‘community clinicians’. These were noted to greatly improve participants’ understanding of HiAP, the importance of health equity and the role their department should play in meeting this vision of community health (Corburn, Curl, Arredondo, et al., 2014). The cumulative toxic stressor model was combined with health data to foster a localised understanding of determinants of health. By increasing the sense of ownership different municipal departments experienced over health problems, this approach laid a solid foundation for intersectoral understanding, collaboration, and action. This extensive, participatory drafting process has been cited to have contributed to a significant shift in health equity-promoting practices. An example of this is how the Richmond Police Chief challenged a proposal by the Costa County Sheriff (an elected county-level chief law enforcement officer) to expand a local detention facility, successfully arguing that the 19 million USD intended for the expansion should go towards improving community services and supporting parolees. Additionally, the city challenged Chevron for not paying its fair share in taxes, resulting in a settlement that added 60 million USD to the city budget each year since 2013. Civic and neighbourhood revitalization projects have also been cited to reduce violent crime and improve quality of life (Corburn, Curl, & Arredondo, 2014; Corburn, Curl, Arredondo, et al., 2014; Corburn et al., 2015).

Corburn, Curl, & Arredondo (2014) highlight three factors that contributed to Richmond’s community development that could be used as guiding frameworks in other settings. Firstly, Richmond’s HiAP approach was a bottom-up initiative, defined and advocated by residents and community organisations. The eventual alliance between community activists and an engaged and responsive local government (headed by a progressive U.S. Green Party mayor), which played an important facilitating role in setting up the RHEP, further supported healthy community development. This underpins the importance of both inside (or local government)

and outside (or activist) strategies and approaches (Corburn, Curl, & Arredondo, 2014; Hall, 2006). Then, small place-based actions (such as the revitalization of a local park by residents) that took place throughout the drafting process engaged residents and encouraged partnerships between city agencies and the health department. The third and final factor is the aforementioned learning-by-doing approach, which generated new partnerships and coalitions and thereby prompted different governmental bodies to be involved in development projects. These coalitions and partnerships also aided community organisations and the city in securing external funding through applying for state-wide grants, making community development possible regardless of constraints to the city budget. This, in turn, was facilitated by the state of California, which adopted HiAP at the state-scale in 2012 and explicitly included health equity in state health promotion activities and schemes (Corburn, Curl, & Arredondo, 2014; Corburn, Curl, Arredondo, et al., 2014; Corburn et al., 2015; Corburn & Griffin, 2019)

Sharing & Coalitions

Although not yet engaging in organisation-based knowledge sharing, Richmond is one of the 14 communities taking part in a state-wide initiative dubbed Building Healthy Communities, sponsored by the California Endowment, a private, state-wide health foundation that strives for health equity (Corburn, Curl, & Arredondo, 2014; 'Our Story', n.d.). The website of the city of Richmond additionally hosts a webpage dubbed 'RHEP Collaborative Resources', which features all agendas, PowerPoints, notes, handouts and other supporting materials from the RHEP's monthly meetings from 2012 to 2014. A file on this webpage ('RHEP: Sharing Lessons Learned') features 17 instances (up to 2014) in which the city and/or the RHEP held presentations at national conferences on HiAP and health equity, often alongside UC Berkeley (*RHEP Collaborative Resources*, 2014). The only instance of international sharing documented

here is the city of Richmond hosting faculty from the University of Paris participating in an exchange with UC Berkeley to discuss their work on HiAP. City officials have been cited to look towards other local approaches in the first stages of Richmond's HiAP development, namely initiatives in the U.S., such as those in the city of Boston, King County, Washington and the city of Portland, Oregon (Corburn, Curl, & Arredondo, 2014; Corburn, Curl, Arredondo, et al., 2014; 'Our Story', n.d.; *RHEP Collaborative Resources*, 2014).

Appendix B: São Paulo – Brazil

Introduction

São Paulo is a coastal city with an estimated number of 12,3 million citizens. It is the largest city in Brazil, a country that has rapidly been undergoing changes economically and socially, as it used to rank second or first on the topics of poverty, illiteracy, and mortality worldwide (Victoria et al., 2011). From 1990 onwards, Brazil started investing immensely to reduce poverty through interventions in health care and education. Since then, the poverty rate has dropped to 4,6% (Worldbank, n.d.). Yet São Paulo is far above this national average with a poverty rate of 19% (The Borgen Project, 2019).

Policy Arena & Health in All Policies Approach

To make healthcare more accessible and comprehensive to the poorest communities in Brazil, The Ministry of Health launched the Family Health Programme to restructure primary health care in 1992. Other goals of The Family Health Programme are to expand the coverage of

specialist and hospital care and to implement intersectoral policies for health promotion and disease prevention (Victora et al., 2011; Paim et al., 2011).

In essence, is the implementation of HiAP in São Paulo a translation of the national policy on a local level. The HiAP programme, which is called PAVS, was initiated in 2005 to help the communities within the city that live in poverty (PAHO, 2015). Communities that live in poverty in São Paulo are also facing the consequences of the housing shortage in the city, which leaves 1.2 million of São Paulo's citizens to live in slum-like conditions. Additionally, the education rate is low and due to corruption, trust in the government is also lacking (The Borgen Project, 2019; Richmond, 2020).

The HiAP programme of São Paulo is called The Green and Healthy Environment Programme (PAVS). This programme was originally drafted by the municipal Secretariat of Green and Environment but was later taken over by the Secretariat of Health. Strategies implemented as part of PAVS focus on building trustworthy relationships with people in vulnerable areas of the city in order to inform them and administer their data on health care (PAHO, 2015; Paim et al., 2011).

The municipality of Sao Paulo and its partner organisations have limited documents translated to English or Spanish. Additionally, governmental websites are blocked in some foreign countries and were therefore not accessible for this research. However, on most initiatives that are implemented as a part of PAVS there is thorough documentation in English by the PAHO and knowledge institutions. Thus, the information on the collaboration between governmental sectors and other actors will be analysed by using initiatives as examples of intersectoral work. The initiatives are family health-care teams and GEOhealth.

Family health-care teams

The municipality of São Paulo deploys family care-teams to make healthcare more accessible in socially vulnerable areas (PAHO, 2015). This project was first launched in 1987 in Ceará, a poor state in the Southeast of Brazil. Later, it became a part of the Family Health Programme of Brazil, and the project was implemented in São Paulo in 2007 (Cufino Svitone, 2000; PAHO, 2015). Family health-care teams consist of one doctor, one nurse and four to six community health workers (CHWs). CHWs connect patients to the health care system (Paim et al, 2011). CHWs connect patients to the health care system by providing data, spreading information, and disproving misinformation. CHWs are not health care professionals, but rather members of the community they live in. Their work consists of house visits: they listen to the issues of the patients and help with setting up appointments with health care services. Doing so, they build trust with their patients over time. The impact of CHWs is not merely related to the accessibility of health services; CHWs also provide social support, because they take the time to listen to patients (Grossman-Kahl et al., 2017). In a qualitative study done by Grossman-Kahn et al. (2017), CHWs from São Paulo have expressed the impact they have on the mental health and well-being of patients, for example when they suffer from loneliness.

Moreover, through house visits CHWs observe the social factors at play in a patient's life. In regard to SDH, this is crucial: CHWs collect data on safe housing, domestic violence, and food security (Grossman-Kahn et al., 2017).

According to the PAHO, São Paulo had 1,269 active family health care teams in 2015 and the Secretariat of Green and Environment had trained approximately 5,000 Community Health Workers. Each family health-care team provides care to 3500 citizens and each community

health worker is assigned to 700 citizens (2015). In their report in 2015, the PAHO conducted a study to assess the impact of family health teams by interviewing doctors, nurses, CHWs and government officials. According to the participants, visibility of the project was high as well as participation. 95% of the participants noticed positive changes in routines and processes in basic health care units as well as in the communities.

However, community health workers in São Paulo do address that the family health teams have its limits. Because CHWs do not have any expertise in the fields of medicine or public health, their knowledge on basic health care is inconsistent and incomplete. CHWs urge for more guidance and professionalisation through a certification programme. Secondly, though CHWs effectively connect citizens with health services, the services themselves have limitations as well (Grossman-Kahl et al., 2017).

GEOhealth

In 2007, the Secretariat of Green and Environment (SVMA) launched GEOhealth, a pilot study on water and waste management to battle waterborne diseases. In order to identify health risk due to lack of sanitation, GEOhealth focuses on collecting and analysing georeferenced data. Using existing environmental databases to detect polluted areas, which are a health risk for its inhabitants, actions can be formulated to improve basic sanitation. The methodology of GEOhealth is an interdisciplinary and intersectoral approach, as it combines the expertise from SVMA with the Secretariat of Health and its Community Health Workers. Through a series of five workshops, CHWs have been educated to detect health and environmental problems. Their findings regarding excessive disposal of waste and water pollution included rats and other

synanthropic animals, declining life quality and self-esteem of the inhabitants (City of Sao Paulo, 2008).

Sharing & Coalitions

Family health-care teams have shown to be effective on health problems that are heavily stigmatised (e.g., mental diseases) or require preventative care (e.g., child mortality and breast cancer). Consequently, similar policies with CHW have been initiated in other low- and middle-income countries, such as Mexico and Bangladesh (Grossman-Kahn et al., 2018).

São Paulo shares its experiences through the WHO and the PAHO. During the 8th Global Conference on Health Promotion in 2013 organised by the WHO and the city of Helsinki, São Paulo's HiAP approach was presented as a best practice case study by the PAHO (WHO, 2016.; PAHO, 2015). In addition, the PAHO had written a report to elaborate on the case of HiAP in São Paulo and four other cities in 2015 (PAHO, 2015). There is also a website by the PAHO and WHO on HiAP in the Americas, to share experience with HiAP in American counties. On this site one article is dedicated to São Paulo (Salud en Todas las Políticas, n.d.).

Appendix C: Medellín – Colombia

Introduction

The city of Medellín, located in Colombia (South America), has a population of almost 2,6 million citizens, making it the second largest city in the country (Medellín Government, 2021). For more than 2 decades, the unemployment rate in Medellín has been higher than the average unemployment rate in Colombia (Colombia Reports, 2021). In the 1990s, Medellín was

said to be one of the most dangerous cities on earth. However, since 2013, Medellín has been transforming into a highly innovative and technological city (Stewart, 2021; OECD, n.d.). However, Medellín is still a city where existing inequalities result in an increase in healthcare accessibility. Many people in the city live in informal settlements, which exposes them to higher risks of viruses and unhealthy environments (Baum & Medina, 2020). This example, together with the knowledge that Colombia's Gini-coefficient is equal to 0.513 (World Bank Data, 2020), are only one of the few reasons why it is important for Medellín to implement a HiAP approach.

In 2012, Medellín implemented a new model of city management in respect to five pillars, one of which is Healthy City (Health in All Policies in the Americas, 2012). This change in city management resulted in the implementation of Health in All Policies. Many different sectors are involved in the new plans and there is also a separate budget for HiAP. This change was implemented by the city management as they considered that equity is how a healthier city can be achieved. Therefore, the inequalities in the city have to be analysed.

Policy Arena & Health in All Policies

The mayor implemented multiple development plans and initiatives, for the time period of 2012-2015, to show the city's political commitment to the implementation of HiAP. Anical Gaviria, Medellín's mayor from January 1, 2012 to December 31, 2015, was part of Colombia's Liberal Political Party (Colombia Reports, 2017).

In Medellín, there are many projects implemented with focus on social determinants of health (SDH). By focusing on those factors, the municipality is trying to make Medellín a healthier city. One way in which they do this is through their project called "Home Health". According to the report written by the government of Medellín they "ensure the protection and care of the family as the primary unit of the society, so we implement actions which shall

contribute to their comprehensive development and quality of life. We contribute to the improvement of health conditions as a universal right and generate opportunities for vulnerable population groups and citizens living in extreme poverty".

However, this is only one of the many examples through which it can be seen that projects in Medellin focus on more than the healthcare system. As earlier mentioned, many citizens of Medellin live in slums and especially for those people, health equity is of high importance. Therefore, projects have been implemented to increase social as well as physical connectedness for residents living in slums. By improving the social capital of the city, it becomes possible to move away from the narrative of only working with the health care system currently in place by focusing on how to make a system that benefits everyone (de Leeuw, 2017).

Critique on governmental involvement

As previously mentioned, many people who live in Medellín have difficulty receiving medical care. TECHO, a Latin American NGO, also realised this. For example, those who live in Granizal, a neighbourhood on the outskirts of Medellín, their location is more dangerous than one could think as access to hospitals is very limited (Dotsch, 2021). Therefore, TECHO decided to set up a project in Medellín in order to improve infrastructure to make medical care more accessible.

While the NGO has been able to make a substantial difference in Medellín regarding health, there are still aspects in which Medellín's government can improve in order to help with initiatives like this. One of TECHO's representatives stated that "[t]he government listens and is willing to support our projects. But what is lacking, in most cases, is money" (Dotsch, 2021, §12). Therefore, it is important that Medellín's government implements a significant budget in their policy so that projects can be carried out to its fullest.

Lastly, it is very noticeable that Medellín tries to improve the health in the city by also focusing a lot on the young people. The city identified 6 tasks to improve equality as well as the life quality in the city. Within these tasks, there are already at least 6 projects focused on improving opportunities for children/young adults.

These projects show that it is important to successfully implement HiAP, all different sectors have to be involved in the process. It is not only politicians implementing policies, but different sectors are working together in order to achieve a healthy Medellín.

Sharing and Shareability

The city of Medellín makes use of Boundary Sharing Organisations (BSOs), which are organisations that "act as facilitators of knowledge sharing between city governments and external actors" (Acuto et al., 2019, p.95).

In 2020, Medellín's Secretary of Health introduced some of the city's experiences regarding resilient cities in a meeting with the UNDRR, UNOSSC, PAHO and WHO.

Additionally, a website, *Health in All Policies in the Americas*, has been created in the Americas to share and demonstrate their experience with Health in All Policies. This website has been created as an initiative of PAHO and WHO. On this website, Medellín has uploaded multiple stories about their experiences and policy implementations (Health in All Policies in the Americas, n.d.).

Furthermore, Medellín's International Cooperation and Investment Agency partnered with the World Bank in order to organise a Living lab. This weeklong programme provided a space for Medellín to share their experiences with building sustainable communities as well as their developmental experiences.

Appendix D: Rotterdam – The Netherlands

Introduction

Rotterdam is the second largest city in the Netherlands, with a population of 651.269 as of the first of January 2021(Gemeente Rotterdam.a, 2021). Because of its nature as a trading hub and main entry point for imports and exports for the EU, the city has an important role within the Dutch economy and Europe, with 37% of the transhipments of European harbours in 2020 (EVR010, 2021).

These circumstances also affect the general makeup of the city, because of its international nature, due to Rotterdam being an important harbour for Europe. This makes the city diverse when looking at cultural backgrounds and socio-economic status. Only 47.1% of the population of Rotterdam do not have a migration background, whilst the rest of the population mainly consists of people with Turkish, Moroccan, Surinamese, or Dutch Antillean background, with smaller groups of European and non-European backgrounds (Gemeente Rotterdam.a, 2021). Historically, most of the minorities within Rotterdam originated as migrant workers for the growing Dutch economy within the 20th century, as the Dutch population was not large enough to sustain its rising demand for jobs within its economy. This caused a wave of migrant workers towards the Netherlands from the fifties till the mid-seventies (Koops, 2020). These migrant workers were not integrated properly due to the lack of an integration policy until the 80s, because of the thought that these migrant workers were temporary (Pels & de Gruijter, 2004).The lack of an integration policy from the 50s to the 70s, has made the current generation of people with a migration background disadvantaged compared to the originally Dutch population, when looking at education levels and income (CBS, n.d.)(CBS, 2018). This has caused a substantial

gap within the population of Rotterdam, where more than half of all households within Rotterdam are considered to fit within the lower 20% range when looking at standardised disposable income within the Netherlands. As a result, the Rotterdam Gini-coefficient is 0.31 when looking at income, whilst the Gini-coefficient is 0.89 when looking at wealth (CBS, 2019). Due to these circumstances, Rotterdam has realised multiple initiatives to improve the environment for the general population and to reduce the inequalities within the city.

Health in All Policies Approach

Rotterdam, as a municipality, has made efforts to improve the current environment within the city itself through multiple initiatives. The first of which is the Rotterdam Vitale Stad 2016-2020 program.

This program focuses on eight different goals which are connected to the main goal of this program: improving the number of healthy years of life of the people in Rotterdam and surrounding municipalities. These eight goals are the following: 1. Less smokers, 2. Healthy weight, 3. Sufficient exercise, 4. Less alcohol consumption, 5. Reducing Diabetes II, 6. Mental Health and less depression, 7. Better health quality and 8. Less hearing damage. To achieve these goals, the municipality of Rotterdam has four main action guidelines. The first guideline, "*Gezondheid in eigen hand"*, is having citizens make healthier life choices in general. This also focuses on improving the living environment of Rotterdam to encourage physical activities, which should encourage citizens to make these choices. The second guideline, "*Preventie prominent in zorg, welzijn en jeugdbeleid",* focuses on having healthcare and welfare tends more towards prevention than curing. This also plays into having health professionals help citizens make healthier life choices. The third guideline, "*Gezond en veilig in de stad",* demands the

infection control, hygiene care and environmental medicine to be of a high quality and the crisis management to be on point. The last guideline mentioned in this program is "*E-publieke gezondheid en innovatie"*. This guideline wants citizens to have access to e-health and technologies that inform citizens of certain health problems or gives citizens easier access to health services and information (Gemeente Rotterdam, 2017).

The second initiative which Rotterdam has implemented, is the Gezond010. This program is the successor of the Rotterdam Vitale Stad 2016-2020 and expands upon it. This program could be explained as a plan to create a network with partners of the municipality, with the end goal of improving the healthy years of life. This program has acknowledged, in accordance with HiAP, the complexity of improving health and thus focuses not only on health itself, but also the environment, socioeconomic status and education levels. With the end goal being the improvement of the healthy years of life, there are seven necessary elements identified. These are: healthy living environment (1); healthy education and work environment (2); healthy (sport)associations and recreation (3); health protection (4); necessary infrastructure within neighbourhoods (5); green and attractive public spaces (6) and healthy behaviour of citizens (7). The seventh goal is facilitated by the other six goals (Gemeente Rotterdam. n.d.).

Lastly, there are multiple other initiatives that strive for the improvement of education, the improvement of the living environment of minorities, the emancipation of refugees or migrants and other programs. These all allow for a better environment that ultimately will improve the health of the citizens of Rotterdam implicitly or explicitly (IDEM Rotterdam, n.d.).

Policy Arena

As mentioned in the introduction, Rotterdam is a diverse city with a majority of the population having a migration background and being in the bottom 20% of the population when looking at standardised disposable income (CBS, 2018) (Gemeente Rotterdam.a, 2021). This has caused Rotterdam to focus on equality and equal opportunity for its citizens. This is amplified by the local politics, as leftist parties such as D66, Groenlinks and PvdA, Denk, a liberal party that focuses on the emancipation of minorities, and Leefbaar Rotterdam, a party that focuses on improving Rotterdam and its environment for its citizens (Rotterdam, n.d.) (Leefbaar Rotterdam, n.d.).

HiAP programs and initiatives are possible for Rotterdam, as the national government allows the city of Rotterdam to operate its own policy to a certain extent, as the term "*medebewind*" is used. "Medebewind" implies the co-leadership of Rotterdam regarding the governance of the municipality. Some national policies must be upheld by the municipality, for example the housing of schools, support for students that need extra help or have special needs and the construction and maintenance of the infrastructure within the city (Rijksoverheid, n.d.).

Sharing Coalitions

The municipality of Rotterdam does not state clearly if they share their knowledge or policies with other cities or municipalities, locally or globally. Membership is not stated clearly either by sharing coalitions and the effort Rotterdam is putting into sharing knowledge with these sharing coalitions and networks. Sharing is, however, a goal of the municipality of Rotterdam, as it is mentioned in the Gezond010 program and the Rotterdam Vitale Stad 2016-2020 program, especially sharing knowledge and data with citizens (Gemeente Rotterdam, n.d.) (Gemeente

Rotterdam, 2017). Rotterdam is praised for its information gathering within its municipality and is seen as one of the innovators in that field.

Even though the sharing coalitions of Rotterdam are not clear, there are some organisations that Rotterdam is part of. From interviews with experts in the field of public health and health care, it can be said that Healthy Cities Network and Gezond in de Stad are two sharing networks that Rotterdam is part of. Healthy Cities Network focuses on HiAP and health interventions on an international scale whilst Gezond in de Stad is a national project and network which focuses on researching the causes of health differences between groups within a city (GezondIN, n.d.). Knowledge institutions, such as ErasmusMC, Erasmus University Rotterdam and Hogeschool van Rotterdam are organisations that Rotterdam shares information with on a daily basis, as these institutions help research within Rotterdam. Other organisations that Rotterdam has a high likelihood of sharing knowledge or information with, are the WHO or its regional office, the EU, Benelux, and the UN, as these are internationally acknowledged institutions which the Netherlands is a member of.