

A Comparative Study on Healthy City Capacity Mapping: Indonesia and Korea

¹Sukri Palutturi, ²Cordia Chu, ³Ji Young Moon and ³Eun Woo Nam

¹School of Public Health Hasanuddin University, Indonesia

²Centre for Environment and Population Health, Griffith University, Australia

³Healthy City Research Centre Institute of Health and Welfare,
Yonsei University, Wonju, Republic of Korea

Abstract: The healthy city approach toward addressing a variety of urban health challenges is increasingly important in the context of urbanization and globalization. For successful healthy city implementation and to help planners and decision makers as an initial step WHO introduced a tool, capacity mapping which aims to identify existing resources and assess capacity needs. Countries like Japan, Korea and Australia as well as some European and American countries have mapped their national capacity. However for specific cases like healthy cities, mapping capacity is rarely undertaken. Therefore, through a comparative study, this study maps the healthy city capacity in two selected countries: Indonesia and Korea, in order to assess comparative needs and improve healthy city development. Based on an extensive literature review and government documents, this study found that Indonesia and Korea have similarities in the historical development and national agenda of their healthy cities implementation but have differences in organizational structure, regulation and funding support. It appears that Indonesian national policy is stronger than Korean policy; Indonesia has joint regulation by the MOHA and the MOH which provide national guidelines for the healthy cities implementation while Korea only utilizes general guidelines. However in terms of funding availability, Korea's healthy city program is stronger than that of Indonesia. Korea benefits from self-financing by each city, a membership fee from the KHCP and support from the Health Promotion Foundation while Indonesia has limited funding and no specific membership fee.

Key words: Healthy city, capacity mapping, KHCP, Indonesia, Korea

INTRODUCTION

The healthy city approach toward addressing a variety of urban health challenges is increasingly important in the context of urbanization and globalization in all regions including South-East Asia, Indonesia's region and the Western Pacific, Korea's region. As a first setting approach used in health promotion (Lindstrom and Eriksson, 2009) and considered an effective way to promote health (Chu, 2009), capacity building has become a vital concern in the globalized world. The Jakarta Declaration (1997) and Nairobi Conference (2009) provide strong evidence of the importance of capacity improvement (WHO, 2011a, b). Three of five priorities for health promotion in the 21st century identified in the Jakarta Declaration involve capacity improvement. Building capacity for health promotion was also one of the thematic tracks at the Nairobi Conference.

For successful healthy city implementation and to help planners and decision makers, one of the useful tools introduced by WHO to promote health is capacity

mapping (LaFond *et al.*, 2002; Mittelmark *et al.*, 2006; Nam and Engelhardt, 2007; WHO, 2010). According to LaFond *et al.* (2002), mapping is the first step in designing capacity-building interventions and provides a useful framework to monitor and evaluate the effectiveness of a program. Capacity mapping aims to identify existing resources and assess capacity needs. Although, capacity mapping is important in capacity improvement, Mittelmark *et al.* (2006) explained that actually "there is no single way or a best way to make a capacity map". The optimal way to map capacities is needed to identify, assess and define users' needs.

Australia as well as some Asian countries such as Japan and Korea and European and North American countries such as Slovenia, the United States, Canada and Colombia, have largely mapped the national capacity to promote health (Mittelmark *et al.*, 2006; Nam and Engelhardt, 2007). However, for specific cases like the healthy city approach, capacity mapping in Indonesia and Korea is still rarely undertaken. Indonesia and Korea have a common history in the development of healthy cities but

the two countries are located in different regions and have different country capacities. Learning from different concepts as well as examining strengths and weaknesses through a comparative study is needed. Therefore, this research aims to map the healthy city capacities in two selected countries, Indonesia and Korea in order to assess comparative needs and to improve healthy city implementation and development. Future capacity building to ensure successful healthy city implementation in both countries is essential.

MATERIALS AND METHODS

WHO in 2004 developed a capacity mapping tool to map the capacities possessed by each country to promote health, including healthy city. In the research, discussed here, there are six dimensions identified in mapping healthy city in two selected countries, Indonesia and Korea: demographic and geographic profile; documents, policies, regulations and acts; organizational structure; evaluation systems, settings and indicators; award system; capacity building and budgeting. To map those dimensions, this research used an extensive literature and document review. General data and information was obtained from relevant publications through Google Scholar and WHO publications. For the Indonesian context, the main document review was obtained from the national guideline on Healthy Districts/Cities Implementation which is joint regulation between the Ministry of Home Affairs (MOHA) and the Ministry of Health (MOH) No. 34/2005 and No. 1138/Menkes/PB/VIII/2005 (MOH and MOHA, 2005). Search strategies used free words, key words and combinations from different sources (national, international, document reports and legislation).

RESULTS

The six dimensions of healthy city capacity mapping are described and analyzed further in this study.

Demographic and geographic profile: General characteristics of the demographic and geographic profiles of Indonesia and Korea are shown in Table 1.

Documents, policies, regulations and acts: To implement and develop programs, countries and organizations generally, must provide a policy framework that explains the objective to be achieved and the means by which it will be achieved. In regard to healthy city implementation, Indonesia and Korea have different policy documents and regulations (Table 2). For example, healthy city policy in Indonesia is regulated by the MOHA and the MOH No. 34/2005 and No. 1138/Menkes/PB/VIII/2005 (MOH and MOHA, 2005). This policy consists of 69 pages including 2 appendices generally discussed and explained on the healthy city application; classification and criteria; evaluation and award system; capacity building including coordination and supervision and budgeting. The first appendix explains in detail general provisions, aims and targets; policies and strategies; healthy districts/cities application; settings; classification and criteria; evaluation system; capacity building and coordination and supervision systems and budgeting while the second appendix provides forms and guidelines for healthy districts/cities assessment.

Indonesia and Korea both have a national regulation/guideline on healthy cities implementation. However, they differ in which department issues or publish it. The Indonesian healthy districts/cities guideline is published by the MOHA and the MOH while

Table 1: Demographic and geographic profile of selected countries: Indonesia and Korea

Demographic and geographic profile	Indonesia	Korea
Demographic		
Total population	~237,556,400 (2009)	~49 million (48,580,293) (2010)
Urban population	124,907,155. (2009)	39,822,647 (2010)
Percentage of urban population	52.58% (2009)	82.0% (2010)
Population growth per year	1.49% (2009)	0.5% (2010)
Population density per square km.	124 persons km ⁻²	485.6 persons/km ² (2010)
Population of the largest cities	Jakarta (8,839,247)	Seoul (10,312,545)
Life expectancy at birth (years) by sex (2009)	Male (66), female (71), average (68)	Male (77), female (83), average (80)
Infant mortality rate per 1000 live births (2009)	Male (33), female (27), average (30)	Male (3.3), female (3.1), average 3.2
Maternal mortality ratio per 100,000 live births (2008)	240	18
Geographic		
Number of provinces/prefectures	33 provinces	9 provinces
Number of districts/cities	497 districts/cities	232 districts/cities
Number of subdistricts/towns	6,651	N/A
Number of villages	77,126	N/A
Country location	South-East Asia	East Asia
Number of healthy districts/cities	216 districts/cities	63 cities (2011 full members of Alliance for Healthy Cities)

Indonesia-Demography and Geography (Central Bureau of Statistics, 2010); LE and Korean data

Table 2: Documents, policies, regulations and acts of selected countries: Indonesia and Korea

Documents/Policies/ Regulations/Acts	Indonesia	Korea
Document		
Title	Guidelines for the Implementation of Healthy Districts/ Cities (joint regulation between the MOHA and the MOH No. 34/2005 and No. 1138/Menkes/PB/VIII/2005	2008, 2009, 2010 healthy city in Korea, Health Promotion Foundation
Year	2005	2008, 2009, 2010
Corporate Author(s)	MOH and MOHA	Ministry of health and welfare
Language	Bahasa	Korean
Publisher	MOH and MOHA	Health promotion foundation with ministry of health and welfare
Publisher location	Jakarta	Seoul
Physical description	69 pages (2 pages for title and table of contents; 8 main pages; 38 pages for Appendix I and 21 pages for Appendix II), A4	135 pages (3 pages for title and table of contents; 125 main pages; 3 pages for Appendix I and 2 pages for Appendix II, 3 pages for Appendix III), A4
Status of document	Guideline	General Information
Levels and sectors of actions	Local government initiative for HC, sometimes cooperate with governmental bodies and universities	Local government initiative for HC, sometimes cooperate with universities or institutes
Key recommendation statement	Support healthy districts/cities implementation at local government	Support for local government and Korean healthy city Partnership
Act	There is no National Healthy District/City Act. However, there is one city that has a healthy city act	Health promotion act Local government act

the Korean Healthy City guideline is published by the Health Promotion Foundation with the Ministry of Health and Welfare. The Indonesian guideline seems stronger than the Korean guideline, due to the fact that healthy city policy in Indonesia is regulated by a joint regulation between the MOHA and the MOH. The involvement and role of the MOHA in the healthy city implementation are crucial because many departments and ministries work under the MOHA. This hierarchy means that the MOHA can influence the others in policy making or that the others rely on the MOHA.

In contrast, Korea has local government acts and key recommendation statements that support local governments and the Korean Healthy Cities Partnership. The Korean Health Promotion Act has a key position in healthy cities implementation. Officially, Indonesia does not have a national Health Promotion Act, including a healthy city act but on the local government level there is one city that has a healthy city act. This city, Palopo City, is the only city in Indonesia with a healthy city act (Healthy City Forum, 2009).

Organizational level: The organizational level is an important aspect of mapping health capacity (LaFond *et al.*, 2002). This relates to structures, processes and management systems including humans and resources that enable improved organizational performance. Organizational form influences what mechanisms need to be implemented and what roles need to be played. In the Indonesian healthy city context, this aspect is clearly mentioned for example in the joint regulation between the MOHA and the MOH as seen below.

The Ministry of Home Affairs carries out general guidance (Pembinaan umum) on Healthy Districts/Cities implementation, including provision of guidelines, guidance, training, direction and supervision (Article 12).

The Ministry of Health carries out technical assistance (Pembinaan teknis) on implementation of healthy districts/cities, including provision of guidelines, guidance, training, direction and supervision (Article 13).

The provincial government provides guidance to the districts/cities that implement healthy districts/cities to encourage achievement of optimal standards in the province in accordance with healthy districts/cities settings (Article 14).

The district/city government provides operational guidance in the implementation of healthy districts/cities by the regional governmental bodies in accordance with the settings selected (Article 15) (Table 2).

Therefore, the roles and organizational structures of Indonesian Healthy Districts/Cities are at all governmental levels: national, provincial and district/city. Similarly, Korea also has healthy city organizational structures at all levels. However, there are some differences between the two countries in who is responsible at each level. For example, healthy cities policy in Indonesia at the national level is handled by two ministries: the directorate general for diseases control and environmental health of the MOH and the directorate general for regional development of the MOHA. These two ministries have different roles, as mentioned above. In contrast in Korea, the Division of Health Policy of the Korean Ministry of Health collaborates with the Health Promotion Foundation for Korean Healthy city.

On the district/city level, however, the two countries have the same organizational structure in which healthy districts/cities are handled by the Department of Planning and Health, differing only in name. For example, in Indonesia, on the district/city level, healthy districts/cities are organized by the Regional Development Planning Board and District/City Health Office while the comparable entities in Korea are the Planning Department and Health Department and Planning Department or Public Health Center.

Evaluation system, settings and indicators: Timmreck defined evaluation as “the process of determining the degree to which an objective of a program or procedure has been completed or met”. Evaluation generally, includes a process comparing the objectives and targets planned and the objectives and targets achieved or met. Basically, there are three different levels of evaluation in health promotion: process evaluation, impact evaluation and outcome evaluation (Chu, 2009; Department of Human Services, 2003). However, the evaluation undertaken so far in developing healthy city in Indonesia focuses mostly on process evaluation.

In developing healthy cities, each country has a different concept of evaluation system, settings or types of healthy cities, including indicators development as shown in Table 3. Indonesia created 2 levels of evaluation or assessment of healthy cities according to governmental level: national and provincial. First, the local government (provincial level) carried out a selection process for feasible districts/cities to be considered as proposed

healthy districts/cities. The process selection was undertaken by a provincial advisory team on behalf of the governors. This team consisted of representatives of the provincial government and related institutions. Based on the evaluation and selection results, the provincial government (governor) made a proposal to the Ministry of Health with a cc to the Ministry of Home Affairs for further evaluation. This additional assessment was conducted by a central assessor team consisting of representatives from the MOHA, MOH and related ministries.

Indonesia established three types of healthy city indicators: main indicators, general indicators and specific indicators. The main indicators included 9 year compulsory education, literacy rate, domestic income per capita, Infant Mortality Rate (IMR) per 1000 live births and Maternal Mortality Ratio (MMR) per 100,000 live births. General indicators included the availability of local government support, functioning of the district/city forums, village communication forums and village working groups. Finally, the specific indicators are based on the selected settings. For example if city A selected the setting “healthy settlement areas and public facilities,” it needs to meet the established indicators of clean water, clean river water, individual and public water supply, water disposal, waste management, etc. Other settings also have their own established indicators.

Reward/award system: Reward and punishment as a means to improve organizational performance is still the subject of debate. Some authors argue that punishment is

Table 3: Evaluation system, settings and indicators of healthy cities in selected countries: Indonesia and Korea

Evaluation system, settings and indicators	Indonesia	Korea
By whom		
National level	Assessment is conducted by central assessor team whose members consist of representatives from the MOHA, MOH and related ministries based on proposals from each governor	Ministry of Health and Welfare
Provincial level	Selection is conducted by provincial advisory team on behalf of governor Provincial advisory team consists of the provincial government and related institution representatives	N/A
District/city level	n/a	Healthy city team
Time of evaluation		
National level	Every 2 years	Every year
Provincial level	Every 2 years	Every year or not
District/city level	Every 2 years	N/A
Settings or types of healthy cities	Nine settings: healthy settlement areas and public facilities, traffic facilities areas and transportation services, healthy mining areas, healthy forestry areas, healthy industry and office areas, healthy tourism areas, food and nutrition security, self-reliant healthy community life and healthy social life Selected settings are based on the district/city capacities, problems and needs	Six types of healthy cities: healthy behavior practice, healthy setting, healthy environment, healthy transportation, health equity and health industry innovation Selected settings are based on the health promotion programs and healthy environment programs (six healthy city types)
Indicators	Three indicators: main indicators; general indicators and specific indicators	Two indicators: key indicators, general indicators

better than a reward system and others argue that a reward system is better than punishment (Blair *et al.*, 2004; Carnagey and Anderson, 2005; Carver and White, 1994; Sigmund *et al.*, 2001; Zipf, 1960). Without neglecting the differences of viewpoints, reward is considered an effective method of improving the objectives of organizations, including those involved in healthy city development. Organizations and countries are developing reward systems in different ways. Indonesia, for example, is giving Swasti Saba. Swasti Saba is an award given by the central government to communities through regent(s)/city mayor(s) who are successful in implementing healthy city. There are three levels of Swasti Saba: Swasti Saba Padapa (basic achievement); Swasti Saba Wiwerda (middle achievement) and Swasti Saba Wistara (high/best achievement). All cities/districts that achieve the established requirements/ indicators would be invited by the central government to receive an award (certificate) in November, every 2 years, in commemoration of National Health Day. The award could be given by the Indonesian President, Vice President or the Ministry of Health on behalf of the central government. In Korea, on the other hand, successful cities would receive an award of a certificate and trophy at the Korean Healthy City Partnership General Assembly every May.

Capacity building and budgeting: As quoted from LaFond *et al.* (2002) defined capacity building as “any activities which increase our partners’ abilities to carry out or assist others to carry out efforts successfully to improve the lives of the poor”. Indonesian capacity building may differ from that of other countries such as Japan and Korea due to differing governmental levels and organizations and dimensions and also the governmental system (decentralized or centralized). For example, since 1999, Indonesia has implemented local autonomy as regulated in the Republic of Indonesian Constitution No. 32/2004 on local government. Some authority has been given to the local government. This governmental system influences all sectors including sectors handling healthy districts/cities.

In terms of healthy city, the Indonesian national government only provides a guideline, supervision, assessment and other technical assistance and the case is similar at the provincial level. The real implementation of healthy districts/cities in Indonesia exists at the district/city level and this implementation really depends on the Head of Healthy City Forums and the Head of Governmental Bodies and is strongly supported by the head of district and the city mayor. Capacity building at

the local government level includes technical assistance from the provincial and national levels, training, comparative study among the successful districts/cities in Indonesia and benchmarking to other locations such as Hong Kong and Macao in China and Logan City in Australia, among others. In contrast, the Korean national government provides statistics, training courses and benchmarking to European and Japanese Healthy Cities for healthy cities officers.

In terms of healthy districts/cities budgeting, Korean Healthy City provides a good example. Korean Healthy Cities has developed a membership fee with the Korean Healthy Cities Partnership. In addition, city projects are self-financing, with support from the Health Promotion Foundation. Healthy districts/cities budgeting in Indonesia on the other hand is included in each governmental body’s budget. As a result, some healthy cities forums have experienced difficulties in program budgeting because each department has its own program and business. The healthy cities budget used by healthy cities forums in particular at the local government level was from the relief fund and also from the private sector; the budget from the private sector was usually limited.

DISCUSSION

Indonesia and Korea demonstrate similarities in their development of healthy cities. These two countries both pioneered and developed a healthy city program when WHO established a World Health Day Theme in 1996 of “Healthy Cities for Better Life.” In Indonesia, the healthy city implementation progressed effectively due to the existence of joint regulation between the MOHA and the MOH which is a national guideline for the implementation of healthy districts/cities in Indonesia. This regulation is also a strong point for Indonesia because it details various aspects relating to the role of the national government, provincial government and district/city government. In addition, the regulation also explains the relationship between the MOHA and the MOH in which the MOHA covers many other departments and ministries. Although, Indonesia has joint regulation as mentioned above, Indonesia does not have a Health Promotion Act like Korea. Korea has a key recommendation statement which provides support for local governments and the Korean Healthy Cities Partnership. The key recommendation statement certified government supports the Korean Healthy Cities Partnership in implementing Healthy Cities including funding and capacity building supports.

In contrast to the strong role played by the national government in Indonesia, healthy city projects in Korea began with four cities joining the Alliance for healthy cities in 2004 not by the leading of the central government (Nam and Engelhardt, 2007). By 2011, 59 additional cities had joined the Alliance for Healthy Cities (AFHC, 2011) for a quantitative growth of 15 times within 7 years. Composing 50% of the Alliance for Healthy Cities, healthy cities in Korea have been active. In addition, a domestic healthy cities network, Korean Healthy Cities Partnership, was organized in 2006 and has been contributing to information exchange and development related to domestic healthy cities projects. The fever of healthy cities which was led by local government, caught the attention of the central governmental Ministry of Health and Welfare and resulted in research projects (R&D) for supporting healthy cities forums and healthy cities projects in 2006 and 2009 as well as the establishment of an award system from the government in 2010. Cooperating with the Korean Health Promotion Foundation (www.khealth.or.kr/) and the Ministry of Health and Welfare, this system is appointing a health-friendly city. The Korean Health Promotion Foundation is an organization that advances health improvement projects through a Health Promotion Fund which was created by an excise tax on tobacco and this fund is playing a role as seed money for healthy cities projects.

Healthy cities projects in Korea are not limited to the public health field and Korea is considered to be a country that reflects the 11 requirements of healthy cities that emphasize the concept of health in overall urban development planning such as welfare, environment, urban planning, design and economic growth. In the healthy cities 2020 project plan for example, Wonju City developed and promoted 66 initiatives including healthy cities infrastructure establishment, healthy cities project promotion, disease prevention and rehabilitation, health promotion projects, welfare and culture projects, physical environment and health industry. Various WHO reports played a part in the expansion of healthy cities projects in Korea and also contributed to attracting interest in these projects from the Ministry of Health and Welfare as well as the Korea Research Institute of Human Settlements. The reasons that healthy cities projects in Korea can be so vibrant include great interest on the part of city mayors in health, practical use of the National Health Promotion Fund that was created by the tobacco consumption tax and theoretical support for healthy cities projects from universities and research institutes located near each local government.

CONCLUSION

Indonesia and Korea have similarities in the historical development and national agenda of healthy cities implementation but differences in organizational structure, regulation and funding support. The organizational structure of healthy city in Indonesia is under the umbrella of the MOHA and the MOH while in Korea it is only under the Ministry of Health. Correspondingly, Indonesian national healthy city policy seems stronger than that of Korea; Indonesia has joint regulation between the two above-named ministries while Korea only makes use of a general guideline. However in terms of the availability of funding, Korean Healthy Cities is stronger than Indonesian Healthy Cities. Korea has self-financing from each city and the support of the Health Promotion Foundation, as well as membership fees from the Korean Healthy City Partnership while Indonesian Healthy Cities do not have membership fees and the budget managed by the healthy cities forum is very limited.

ACKNOWLEDGEMENTS

Researcher would like to thank the Healthy City Research Center Institute of Health and Welfare, Yonsei University, Wonju, Republic of Korea for this research collaboration. My thanks also go to the Ministry of Education, Indonesia which has given me a great opportunity to undertake a PhD program at The Centre for Environment and Population Health, Griffith University, Australia.

REFERENCES

- AFHC, 2011. Alliance for Healthy Cities. Retrieved 1 December, 2011, <http://www.alliance-healthycities.com>.
- Blair, R., D. Mitchell, A. Leonard, S. Budhani, K. Peschardt and C. Newman, 2004. Passive avoidance learning in individuals with psychopathy: Modulation by reward but not by punishment. *Personality and Individual Differences*, 37 (6): 1179-1192.
- Carnagey, N.L. and C.A. Anderson, 2005. The effects of reward and punishment in violent video games on aggressive affect, cognition and behavior. *Psychol. Sci.*, 16 (11): 882.
- Carver, C.S. and T.L. White, 1994. Behavioral inhibition, behavioral activation and affective responses to impending reward and punishment: The BIS/BAS Scales. *J. Personality Soc. Psychol.*, 67 (2): 319.
- Central Bureau of Statistics, 2010. 2010 Population Census Results (August 2010 Ed.). Jakarta: Central Bureau of Statistics.

- Chu, C., 2009. Health program Planning and Evaluation (Course Guide). Brisbane: The Griffith School of Environment.
- Healthy City Forum, 2009. Process Report on Palopo Healthy City Development 2007-2009. Palopo: Healthy City Forum.
- LaFond, A.K., L. Brown and K. Macintyre, 2002. Mapping capacity in the health sector: A conceptual framework. *Intl. J. Health Planning and Manage.*, 17 (1): 3-22. DOI: 10.1002/hpm.649.
- Lindstrom, B. and M. Eriksson, 2009. The salutogenic approach to the making of HiAP/healthy public policy: Illustrated by a case study. *Global Health Promotion*, 16 (1): 17.
- Mittelmark, M.B., M. Wise, E.W. Nam, C. Santos-Burgoa, E. Fosse, H. Saan and K.C. Tang, 2006. Mapping national capacity to engage in health promotion: Overview of issues and approaches. *Health Promotion Intl.*, 21 (Suppl. 1): 91-98.
- MOH and MOHA, 2005. The guideline of healthy districts/cities implementation (Peraturan bersama Menteri Dalam Negeri and Menteri Kesehatan) Nomor: 34 Tahun 2005 dan Nomor: 1138/menkes/PB/VIII/2005. Jakarta, Indonesia: Tim Pembina Kabupaten/Kota Sehat Tingkat Pusat.
- Nam, E.W. and K. Engelhardt, 2007. Health promotion capacity mapping: the Korean situation. *Health Promotion Intl.*, 22 (2): 155-162.
- Sigmund, K., C. Hauert and M.A. Nowak, 2001. Reward and punishment. *Proceedings of the National Academy of Sciences*, 98 (19): 10757.
- WHO, 2010. Capacity mapping for health promotion. Kairo: World Health Organization regional Office for the eastern Mediaterranean.
- WHO, 2011a. Health promotion: 7th Global Conference on Health Promotion Retrieved September 9, 2011. <http://www.who.int/healthpromotion/conferences/7gchp/en/index.html>.
- WHO, 2011b. Health promotion: Jakarta Declaration on Leading Health Promotion into the 21st Century Retrieved September 11, 2011, <http://www.who.int/healthpromotion/conferences/previous/jakarta/declaration/en>.
- Zipf, S.G., 1960. Resistance and conformity under reward and punishment. *The Journal of Abnormal and Social Psychology*, 61 (1): 102.