



Evaluation of the Global Conference of the Alliance for Healthy Cities

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Abstract

Introduction: The Healthy Cities approach was initiated and has been promoted through the World Health Organization Western Pacific Region (WPRO) since the late 1980s, and its implications have been rapidly realized. The Alliance for Healthy Cities together with the WPRO and member cities organizes a global conference every two year. The 7th Global Conference of the Alliance for Healthy Cities (AFHC) was held in Wonju, the Republic of Korea, from 29th August to 1st September, 2016 with the main theme of “Our Cities, Our Health, and Our Future.” The study aimed to evaluate the outcome of the 7th Global Conference of the AFHC in terms of participant’s satisfaction and economic effects and to provide future direction of Healthy Cities conferences.

Methods: This study applied a self-reported questionnaire survey for participant’s satisfaction survey. Questionnaires with Likert-type scales were distributed among the conference participants on the last day of the conference. Independent sample t-test was used to see the difference in the satisfaction level between domestic and overseas participants. Economic effect was also evaluated using six indicators of production effect, income-induced effect, labor-induced effect, induced value-added effect, induced workers effect, and indirect tax repercussion effect.

Result: The conference provided abundant opportunity for innovative learning and experience sharing between countries, member cities, and academia with a multi-linguistic approach. Satisfaction survey showed that most of the participants were satisfied with the contents and organization of the conference. Average satisfaction was more than 4 for most of the aspects except for food and organizational arrangement. Overall cost-effectiveness, including secondary economic-effect, was more than 2.6 million USD.

Conclusion: The satisfaction of the conference was evaluated as a successful case of conducting a global conference with an attraction of participants over the World. The conference had good outcomes in term of participant’s satisfaction and economic impact.

Keywords

Healthy cities; Global conference; Alliance for healthy cities; Satisfaction survey; Cost-effectiveness

Introduction

The Healthy Cities approach was launched in 1984 based on the Healthy Toronto 2000 convention or “new public health” era [1]. In the early 1990s, the World Health Organization (WHO) developed guidelines for the Healthy Cities and established a program to support the Member States. The Healthy Cities approach translated the principles of the Ottawa Chapter on Health Promotion to improve the health status of people through actions for health promotion [2]. The Healthy Cities project is a multidimensional and comprehensive social movement that includes a wide range of political, social and behavioral interventions for the health and development of city dwellers [3,4]. According to the WHO, the definition of Healthy City is “one that is continually creating and improving those physical and social environments and expanding those community resources which enable people to mutually support each other in performing all the functions of life and developing to their maximum potential” [5]. Previous studies reported that the Healthy Cities Approach provided effective strategy in dealing with the issues of policy and governance, healthy urban environments and design, caring and supportive environments, healthy and active living, national network performance, health and equity [6-8]. The healthy cities movement allows local governments to invest in health and well-being and address inequities through new approaches to health policy [9]. Nowadays, thousands of cities joined the Healthy Cities network, and exist in all WHO regions in more than 1,000 cities worldwide, which includes developed and developing countries [2].

The Healthy Cities Approach was initiated and has been promoted in the WHO Western Pacific Region (WPRO) since the late 1980s, and its implications have been rapidly realized. The approach was presented in models in Australia, Japan, Republic of Korea, Malaysia, China, and the Philippines [10]. Healthy Cities is valued as an approach that has been effective in mobilizing political and cross-sectoral support for urban health in the Western Pacific region [11]. As the Healthy Cities approach in the WPRO grew, it founded the Alliance for Healthy Cities (AFHC), which supports communication between and among city officials. The main purpose for establishing the AFHC was to establish a network repository for Healthy Cities reports and data, sharing experiences among cities, and raising public awareness of the Healthy Cities approach. The AFHC started with six founding cities and has grown to more than 200 cities and associate members as of 2016 [12].

The Healthy Cities Approach is becoming more important than ever before in addressing a large number of urban health problems arising due to urbanization and globalization in both developed as well as developing countries. “Make cities inclusive, safe, resilient and sustainable”, one of the goals of sustainable development (SDGs) indicates its significance in the present context [13]. This is the first time that cities have been prioritized on the global development agenda, municipal and local governments have the ability to act on urban health issues in a responsive manner to make a significant impact at national and global level [14].

In every two years, the Alliance for Healthy Cities together with the WPRO and member cities organizes a global conference to exchange experiences and develop future strategies to improve health

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in the cities. The previous six conferences had discussed different topics from the planning, collaboration, and partnership of a healthy city network. Based on the establishment of sustainable development goals (SDGs), the role of sustainable city development became more important in the 7th Global Conference of the Alliance for Healthy Cities [15-16]. It is always important to evaluate the effects of a conference in term of satisfaction of the participants and economic impacts. Therefore, the study aimed to evaluate the outcome of the 7th global conference of the alliance for healthy cities in terms of participant’s satisfaction and economic effects and to provide future direction of healthy cities conference.

Background to Conference

The 7th Global Conference of the AFHC was held in Wonju, Republic of Korea, from 29th August to 1st September, 2016. The main theme of the conference was “Our Cities, Our Health, Our Future.” The sub-themes of the conference were Healthy Settings: School, Community, Hospital, Workplace, etc.; Health in All Policies; Age-friendly Healthy City; Mental Health and Suicide; Prevention and Control of Non Communicable Diseases (NCDs) and Resilient City; Exercising for Improved Health; Social Determinants of Health; Non-Communicable Diseases in Emergencies and Resilient City; Tobacco-Free City; and Innovative and Smart City. The main theme and sub-themes were determined through a survey conducted among AFHC member cities in July 2015 [15]. Official languages of the conference were English and Korean; additionally, it was provided simultaneous translation into Chinese and Japanese.

Wonju City established three committees for organizing and supporting the conference in collaboration with Yonsei Healthy City Research Center and the AFHC Secretariat. The Advisory Committee was responsible for overall support of conference organization; the Scientific Committee was responsible for supervising the scientific content of the conference, reviewing and selecting abstracts, and facilitating plenary and parallel sessions; and the Administrative Committee was responsible for organization and management of the conference. A conference website was developed to provide up-to-date information to the participants and people interested in the Healthy Cities approach. All interested persons could register their participation at the conference and submit their abstracts using the conference website. In addition, the Scientific Committee distributed two newsletters to provide detailed information to participants regarding the 7th Conference of the AFHC and the conference venue.

Methods

A satisfaction survey was conducted among conference participants using a self-reported satisfaction survey questionnaire. The questionnaire was prepared in both languages, English and Korean. Satisfaction was measured on contents as well as organizational aspects. The satisfaction was measured using Likert-type scales ranging from 1 to 5, 1 indicating very dissatisfied and 5 indicating very satisfied. The questionnaires were distributed to the conference participants on the last day of the conference. The participation of the respondents was completely voluntary. Informed consent was obtained from all survey participants. No personal information was asked except sex, nationality, and profession and working experience. Proportion and mean satisfactions were computed. Independent sample t-test was used to see the difference in the satisfaction level between overseas and domestic participants. Three researchers were members of the conference organizing committees. Thus, to minimize

the ‘insider’ effect of the evaluation the data were entered and analyzed by the researcher other than organizing committee.

The economic effect of the conference was also calculated. Six indicators of production effect, income-induced effect, labor-induced effect, induced value-added effect, induced workers effect, and indirect tax repercussion effect were used. Overall profit of the conference and secondary effect was calculated. The following formula was used to calculate the secondary economic effect of the conference. $EE=(V*AS*M)$, where EE - economic effective, V - the number of visitors, AS - average spending per visitor, M - Multiplier, calculated as $M=TE/DE$, where TE - total effect; DE - initial direct effect [17].

Result

General Information of the Conference

The registered participants were 654 from more than 50 cities, 15 countries, and 2 administrative regions. More than 20 city officials from member cities in Republic of Korea, Japan, Malaysia, Philippines, Singapore, and Taiwan attended the conference and Mayor’s Forum organized by the AFHC. Of the total, the highest 66.3% were from the Republic of Korea, followed by Taiwan 13.1%, Indonesia 4.5%, China 1.5% and 1.5% Hong-Kong. However, three-fifths of the total selected abstracts were from Taiwan and 27.3% from the Republic of Korea (Table 1).

The conference was held over three days and provided one keynote lecture by the Regional Director of the WHO Western Pacific Region, Dr. Young Soo Shin, on the topic of “Healthy and Resilient Cities in Sustainable Development”. The Mayors’ Forum was conducted on the theme of “Innovations and Enthusiasm in Public-Private Partnerships toward Healthy Cities” and included the experience of seven cities: Wonju City (Republic of Korea), Illawarra City (Australia), Kuching City (Malaysia), Owariasahi City (Japan), Singapore, Suzhou City (China), and Tagaytay City (Philippines).

The conference included three plenary sessions comprised of eight presentations in different fields such as the history, present, and future of the Healthy Cities approach in the countries of the WPRO, future agendas of governments, sustainable development, and global health. On the second day, a total of 48 oral presentations were presented in the 15 parallel sessions from 9 countries. These parallel sessions were organized by 25 moderators. In addition, oral-poster

Table 1: Countrywide distribution of the participants and presentations.

Country	Participation		Presentations*	
	Number	%	Number	%
Republic of Korea	435	66.3	56	27.3
Taiwan	86	13.1	122	59.5
Indonesia	30	4.5	1	0.5
Japan	23	3.5	3	1.5
Malaysia	14	2.1	0	0
Hong-Kong SAS	10	1.5	2	1.0
China	10	1.5	15	7.3
Philippines	7	1.1	0	0
Australia	5	0.8	1	0.5
Other	10	1.5	5	2.4
WHO/WPRO	4	0.6	NA	NA
AFHC Secretariat	20	3.5	NA	NA
Total	654	100.0	205	100.0

*Includes only accepted abstract presentations, NA: not applicable *other includes.

and poster sessions were also held. In total, the conference included 205 abstracts: 48 oral presentations, 17 oral-poster presentations, and 140 poster presentations. The AFHC General Assembly was held on the last day of the 7th Global Conference of the AFHC; the future direction and perspectives of the development of the Healthy Cities Movement in the WPRO were discussed. Technical Visits were offered after the conference in order to demonstrate activities held in Wonju City under the Healthy City programs. The participants of the conference were able to visit one of the following places: Climate Change Institute of Wonju, Center for Lifetime Health and Exercise Medicine, The National Health Insurance Service, Yonsei Healthy City Research Center, Wonju Campus of Yonsei University, and Wonju Severance Hospital.

Satisfaction Survey Results

A total of 158 participants responded to the satisfaction survey questionnaire; of them, 60.8% were overseas participants (Table 2). More than half, 53.8% were females, 37.3% were males and 8.9% did not mention their sex. Half of the survey participants were government or public officers, 22.8% and 27.2% respectively, followed by students 14.6% (Table 2).

Tables 3 presents mean satisfaction of the participants in each session, and the organizational and management aspect of the conference. Most of the survey participants were satisfied with the lectures, presentations, and overall contents of the conference

provided. Mean satisfaction level was more than 4 out of the maximum 5 for most of the aspects except good quality (mean, 3.5) and organizational arrangement (3.63) among total participants. The mean satisfaction level regarding transportation services and food quality was lower than session satisfaction score. The satisfaction level of the plenary session was significantly different among overseas and domestic participants; where overseas participants had higher satisfaction. More non-Korean participants were satisfied with most of the sessions as compared to Korean participants. Regarding the conference organization and management process, there were not significant different between overseas and domestic participants. However, mean satisfaction on Wonju’s capacity for international programs was significantly higher among overseas participants than domestic participants.

The overall impression of the venue of the 7th Global Conference was that the Wonju City was a green, healthy, pollution-free, clean, peaceful, and stress-free city. The recommendations suggested for the 8th Global Conference were: varieties of food and snacks, better hotel reception, local food, traditional market, incorporate healthy tourism and culture, and more outdoor activities.

Economic-effectiveness of the conference

The total financing for the organization of the conference was 307,340.00 USD, of which, 29.0% was provided by the government, 24.5% by registration fees, 2.9% was supported by Korean Healthy City

Table 2: Characteristics of the Survey Participants.

Characteristics		Number (158)	Percentage
Participants type	Overseas	96	60.8
	Domestic	62	39.2
Sex	Male	59	37.3
	Female	85	53.8
	Missing	14	8.9
Profession	Government officer	36	22.8
	Public Officer	43	27.2
	Professor	10	6.3
	Researcher	14	8.9
	Student	23	14.6
	Other	20	12.7
	Missing	12	7.6

Table 3: Mean satisfaction of conference sessions, and organizational and management aspects.

Contents	Total		Overseas participants		Domestic participants		P value
	n	Mean	n	Mean	n	Mean	
Session satisfaction							
Keynote Lecture	143	4.44	93	4.50	50	4.32	0.098
Mayors Forum	141	4.39	93	4.48	48	4.22	0.059
Plenary Session I	143	4.36	93	4.45	50	4.20	0.039
Plenary Session II	140	4.37	90	4.48	50	4.16	0.016
Mayors Session	130	4.40	84	4.50	46	4.23	0.073
Plenary Session III	146	4.35	94	4.46	52	4.15	0.033
Presentation Quality	155	4.03	94	4.11	61	3.91	0.109
Organizational and management satisfaction							
Relevancy of contents	156	4.17	94	4.18	62	4.17	0.977
Organizational arrangement	158	3.89	96	4.02	62	3.70	0.058
Social event quality	144	4.06	85	4.01	59	4.15	0.320
Transportation services	156	3.69	95	3.63	61	3.78	0.341
Food quality	158	3.56	96	3.50	62	3.67	0.300
Wonju City capacity for international programs	142	4.41	86	4.54	56	4.21	0.031

Partnership and 2.9% by Gangwon Convention & Visitors Bureau. Total expenditures for conducting the 7th Global Conference of the AFHC was 285,125.00 USD (Annex: Table A1). These costs included registration of the participants, abstract submission and review, an organization of the opening ceremony, rent of the conference venue, translation services, and the welcome reception. The overall profit was 22,215.00 USD.

To evaluate secondary effect by the spending of a participant in the convention, we used six indicators, which are production effect, income-induced effect, labor-induced effect, induced value-added effect, induced workers effect, and indirect tax repercussion effect. The total number of participating persons was 560, where 221 were participants from abroad. The cost-effectiveness for the 221 overseas participants was 1,751,855.84 USD, and that for the domestic participants was 875,677.68 USD. The overall cost-effectiveness of the 7th Global Conference of the AFHC for the period from 29th August to 1st September, 2016 was more than 2.6 million USD (Table 4).

Discussion

The study was conducted to evaluate the outcome of the 7th global conference of the alliance for healthy cities. It measured the satisfaction of conference participants and evaluated economic effects. The satisfaction survey and economic evaluation show that the conference was effective in academic contents, organization and management, as well as in the economic benefit.

The conference attracted participants from more than ten countries of the Western Pacific region which shared their outstanding experience in the establishment of the Healthy City programs and projects. The result from the questionnaire suggested that the participants viewed the Global Conference as the successful in terms of organization and holding of the conference. The conference was appreciated for its intent to bring together different stakeholders and share the experience of the other cities as well as the hosted city. Such conferences provide the opportunity not only to share experience among stakeholders but also to attract the attention of the people who are responsible for the health intervention and

for improving the overall health and wellbeing. The organizational and management plays an important role in the satisfaction of the participants. The host of the 7th Global Conference of AFHC was evaluated satisfactorily. It is suggested to the host party of the next conference should to consider the needs of the participants and easy access to basic facilities like convenience stores, bank, local food; and to include some additional activities in a program such as healthy tourism and culture, more outdoor activities, and easy access to the traditional market. The study evaluated immediate feedback of the participants of the conference and it did not cover evaluation of the long-term effect of the increased knowledge that people gathered and its impact in their local settings. This was one of the important limitations of the study. Also, indigenous people (aged people and students) were invited to participate in the conference, and they demonstrated the physical exercises provided within the Healthy City programme intervention at Wonju and observed special session (Poster Session). However, the impact of the conference was also not evaluated on the indigenous people.

The analyses of the economic-effectiveness of the conference indicated as successful. The direct economic gain of conducting the conference was more than twenty thousand dollars. The secondary economic effect for the host area was more than 2.6 million dollars. However, this study was not able to evaluate the benefits of the participation in the conference as the study did not aim to evaluate the implementation of the knowledge obtained from participation in the conference.

A new concept was discussed and considered during the 7th Global Conference of the AFHC, known as the Healthy Cities concept, based on a United Nations policy that includes the Resilient City Approach proposed by the WHO. The Resilient City Approach includes planning for urban resilience and adaptation [18]. The Healthy Cities Approach involves tools to achieve sustainable development in cities and to improve the health quality of the population; and as WPRO Regional Director mentioned “if cities do not act, the SDGs will not be achieved” [19]. The sustainable development agenda of the participating cities are expected to produce solutions to the problems

Table A1: Financing from different funding sources.

	Financing source	Amount (USD)*	Percentage
1	Government contribution	89,310.00	29.05
2	Other finance sources	111,630.00	36.32
3	Support from Korean Healthy City Partnership	8,930.00	2.90
4	Support from Gangwon Convention & Visitors Bureau	8,930.00	2.90
5	Support from Korea Tourism Organization	13,260.00	4.31
6	Registration fees	75,265.00	24.48
7	Bank interest	15.00	0.00
	Total	307,340.00	100.0

Table 4: Secondary effect by the spending of a participant in the convention.

Indicators	Overseas participants		Domestic participants	
	Calculation	Total effect (USD)*	Calculation	Total effect (USD)*
Induced Production Effect	2455.00USD*221p.*1.8021	977,738.37	800.00USD*339p.*1.8021	488,729.52
Income-Induced Effect	2455.00USD *221p.*0.3358	182,189.97	800.00USD *339p.*0.3358	91,068.96
Labor-Induced Effect	2455.00USD *221p.*0.0230	12,478.77	800.00USD *339p.*0.0230	6,237.60
Induced Value-Added Effect	2455.00USD *221p.*0.7890	428,075.90	800.00USD *339p.*0.7890	213,976.80
Induced Workers Effect	2455.00USD *221p.*0.2110	114,479.11	800.00USD *339p.*0.2110	57,223.20
Indirect Tax Repercussion Effect	2455.00USD *221p.*0.0680	36,893.74	800.00USD *339p.*0.0680	18,441.60
Total		1,751,855.84		875,677.68

*- exchange rate is 1,119.74 KRW per 1USD (average from 29th August to 1st September, 2016)

of aging population, decreasing fertility rate, and sustainable measures to improve the health of the citizens and to strengthen health promotion activities. Another discussed concept was the new approach of using Innovative and Internet of Technology (IOT) concepts to create a Smart Healthy City [20]. IOT-driven services can improve the quality of life of citizen through measures that promote an eco-friendly, and sustainable environment. Therefore, developing smart, sustainable and healthy city is the notion of a future development agenda of any country [21]. Finally, the Mayors Forum introduced the idea of innovation and enthusiasm for public-private partnerships as a future tool in the Healthy City Approach.

Conclusion

The 7th Global Conference of the AFHC provided abundant opportunity for innovative learning and experience sharing between countries, member cities, and academia with multi-country participation using a multi-linguistic approach. Optional and technical field visits were focused on cultural, educational, and recreational places and enterprises in Wonju Innovative City. Establishment of the committees ensured organization of the work, coordination of different tasks among stakeholders, and reduced work duplication and replication. The website provided essential information regarding the conference as well as registration and submission of abstracts. In addition, distributed newsletters informed all registered participants of necessary information regarding the conference content, venue, facilities provided, etc. The conference was well planned, organized and conducted in an economic-effective way.

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Author Contributions

EWN designed the study, interpretation of results and revision of the manuscript. KJN helped interpret the results and finalize the manuscript. BS contributed to the study's design, analyzed the data and drafted the manuscript. YD designed the study and contributed to the finalization of the manuscript. All the authors read and approved the manuscript in its present form.

Conflicts of Interest

None declared.

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